EUROPEAN COMMISSION
DG Competition

PUBLIC VERSION

Case M.9564 – LONDON STOCK EXCHANGE GROUP / REFINITIV BUSINESS

(Only the English text is authentic)

REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 8(2) Regulation (EC) 139/2004
Date: 13/1/2021

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Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets.

EUROPEAN
COMMISSION

Brussels, 13.1.2021
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COMMISSION DECISION

of 13.1.2021

declaring a concentration to be compatible with the internal market and the EEA agreement

(Case M.9564 - London Stock Exchange Group / Refinitiv Business)

(Text with EEA relevance)

(Only the English text is authentic)

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COMMISSION DECISION

of 13.1.2021

declaring a concentration to be compatible with the internal market and the EEA agreement

(Case M.9564 - London Stock Exchange Group / Refinitiv Business)

(Text with EEA relevance)

(Only the English text is authentic)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to the Agreement on the European Economic Area, and in particular Article 57 thereof,

Having regard to Council Regulation (EC) No 139/2004 of 20.1.2004 on the control of concentrations between undertakings[1], and in particular Article 8(2) thereof,

Having regard to the Commission's decision of 22.6.2020 to initiate proceedings in this case,

Having given the undertakings concerned the opportunity to make known their views on the objections raised by the Commission,

Having regard to the opinion of the Advisory Committee on Concentrations,

Having regard to the final report of the Hearing Officer in this case,

Whereas:

1. THE PARTIES AND THE OPERATION

(1) On 13 May 2020 the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 (the "Merger Regulation") by which London Stock Exchange Group plc (the "Notifying Party" or "LSEG", United Kingdom) acquires within the meaning of Article 3(1)(b) of the Merger Regulation sole control of Refinitiv Business (the "Target" or "Refinitiv",

[1] OJ L 24, 29.1.2004, p. 1 ("the Merger Regulation"). With effect from 1 December 2009, the Treaty on the Functioning of the European Union ("TFEU") has introduced certain changes, such as the replacement of "Community" by "Union" and "common market" by "internal market". The terminology of the TFEU will be used throughout this decision. For the purposes of this Decision, although the United Kingdom withdrew from the European Union as of 1 February 2020, according to Article 92 of the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (OJ L 29, 31.1.2020, p. 7), the Commission continues to be competent to apply Union law as regards the United Kingdom for administrative procedures which were initiated before the end of the transition period.

United States) by way of purchase of shares (the "Transaction").[2] LSEG and Refinitiv are designated hereinafter as the "Parties".

(2) LSEG is an international financial markets infrastructure and data provider. LSEG's main activities are in (i) capital markets through trading venues (namely, LSE, Borsa Italiana, MTS, Turquoise, and CurveGlobal Limited); (ii) post-trade and risk management; (iii) information services; and (iv) technology services through trading, market surveillance and post-trade systems for organisations and exchanges. In the first two areas, LSEG operates trading venues (LSE, Borsa Italiana, MTS, Turquoise, CurveGlobal) for equities, exchange-traded products ("ETPs"), bonds, interest rate derivatives and equity derivatives, as well as clearing houses (LCH and CC&G) for equities, ETPs, bonds, interest rate derivatives, equity derivatives, credit derivatives and foreign exchange ("FX") products. In the last two areas, LSEG is in particular active in index provision through FTSE Russell, venue data provision through its aforementioned trading venues, desktop solutions through Mergent, sector classification schemes, and other financial information products such as security identifiers.

(3) Refinitiv is a financial markets infrastructure and data provider. The Target is active in (i) data and analytics provision; (ii) capital markets and workflow solutions; and (iii) risk management services. In the first area, Refinitiv is in particular active in desktop solutions through Eikon, consolidated real-time datafeeds ("CRTDs") through Elektron, market data platforms ("MDPs") through Thomson Reuters Enterprise Platform ("TREP"), index provision, sector classification schemes, and venue data provision. In the second area, Refinitiv operates trading venues (Tradeweb, FXall and Matching) for equities, ETPs, bonds, interest rate derivatives, equity derivatives, and FX products.

(4) LSEG will (directly or through wholly owned subsidiaries) in an all-share transaction[3] acquire the whole of Refinitiv from Refinitiv Holdings Ltd, which is ultimately controlled by Blackstone Group, Inc. ("Blackstone").[4] In exchange, LSEG will issue shares to (certain subsidiaries of) Refinitiv Holdings Ltd., granting Blackstone a ~29% voting interest in LSEG.[5] The Transaction constitutes a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

2. EU DIMENSION

(5) The Parties had a combined aggregate worldwide turnover of more than EUR 5 000 million in 2019 (LSEG: EUR […]; Refinitiv: EUR […]). Each of them had an aggregate Union-wide turnover in excess of EUR 250 million in 2019 (LSEG: EUR […]; Refinitiv: EUR […]). None of the Parties achieved more than two-thirds of their aggregate Union-wide turnover within one and the same Member State. The notified concentration therefore has a Union dimension pursuant to Article 1(2) of the Merger Regulation.

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2 Publication in the Official Journal of the European Union No C 174, 25.5.2020, page 4.

3 Accordingly the consideration will be in the form of equity. However, LSEG plc may, at its option, settle up to USD 2.5 billion (EUR 2.2 billion) of the consideration for Refinitiv in cash.

4 See Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*.

5 The acquisition of this voting interest does not constitute a concentration within the meaning of Article 3(1) of the Merger Regulation.

3. RELEVANT MARKET DEFINITION

3.1. Introduction

3.1.1. Trading and Clearing of Financial Instruments

(6) Financial instruments are assets (e.g. equities or bonds) or contractual agreements between two parties to receive or deliver another financial instrument (e.g. repos or derivatives). They are issued, purchased, and sold in financial markets. The financial instrument value chain includes listing, trading, clearing, and custody/settlement.[6]

(7) Trading in the context of financial markets describes the expression of a mutual commitment between two parties to enter into an agreement to buy or sell a financial asset.[7]

(8) This can occur in various ways: electronically or via voice;[8] bilaterally or multilaterally; on venues (on exchanges or "regulated markets" ("RMs")[9], multilateral trading facilities ("MTFs"),[10] organised trading facilities, ("OTFs"),[11] or outside a venue (i.e. over-the-counter ("OTC"), including through other format such as systematic internalisers ("SIs").[12]

(9) The evolution of the main legislative acts[13] in the area of trading and clearing of financial assets in the European Economic Area ("EEA")[14] has changed the way in

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6 Listing refers to the practice of admitting a financial instrument to an exchange or a similar trading venue. Settlement is the final stage of the trading cycle where a central securities depository delivers to the purchaser the security in exchange for payment. Custody refers to safe-keeping services such as the maintenance of securities' accounts on behalf of investors and the processing of corporate actions like dividend and interest payments or voting rights in the case of shares, see Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraph 32ff.

7 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraph 33.

8 "Voice" comprises phone conversations, chats/messengers and other ways of bilateral exchange, either between (i) a dealer bank or so-called sell-side market participant (e.g. big investment banks) and (ii) a so-called buy-side market participant (e.g. asset/fund/wealth managers), or between two sell-side market participants.

9 According to Art. 4(1)(21) of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments, OJ L 173, 12.6.2014, page 349 ("MiFID II"), an RM "means a multilateral system operated and/or managed by a market operator, which brings together or facilitates the bringing together of multiple third-party buying and selling interests in financial instruments – in the system and in accordance with its non-discretionary rules – in a way that results in a contract, in respect of the financial instruments admitted to trading under its rules and/or systems, and which is authorised and functions regularly and in accordance with Title III of MifID II".

10 According to Art. 4(1)(22) MiFID II, MTF "means a multilateral system, operated by an investment firm or a market operator, which brings together multiple third-party buying and selling interests in financial instruments – in the system and in accordance with non-discretionary rules – in a way that results in a contract in accordance with Title II of MifID II".

11 Art. 4(1)(23) MiFID II, OTF "means a multilateral system which is not a regulated market or an MTF and in which multiple third-party buying and selling interests in bonds, structured finance products, emission allowances or derivatives are able to interact in the system in a way that results in a contract in accordance with Title II of MifID II".

12 According to Art. 4(1)(20) MiFID II, SI "means an investment firm which, on an organised, frequent systematic and substantial basis, deals on own account when executing client orders outside a regulated market, an MTF or an OTF without operating a multilateral system".

13 Regulation (EU) No 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments, OJ L 173, 12.6.2014 ("MiFIR") came into force in January 2018; and Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, OJ L 201, 27.7.2012 ("EMIR"), started phasing in clearing obligations since 21 June 2016, based on Art. 3 of Commission Delegated

which certain financial assets can be legally traded and cleared by market participants, and how and when trading activity needs to be made public and reported to authorities, as explained below.

(10) In particular, the scope of over-the-counter ("OTC") trading has evolved with the legislation. Historically, OTC trading generally had the same meaning with respect to all asset classes, namely, it referred to trades executed bilaterally and away from a trading venue. However, the regulatory changes mentioned above gave a different legal meaning to the concept of OTC trading for different asset classes.[15]

(11) For equities,[16] OTC trading refers to trades that take place away from a MiFID II[17] regulated trading venue (RM or MTF in this case) and away from an EEA-based SI.[18] Listed company-issued equities are in principle subject to the trading obligation (i.e. they need to be traded on an RM, MTF or SI) and as such there is limited OTC trading for these assets. This does not however apply to ETPs, which are not subject to the trading obligation and can be traded OTC.[19]

(12) For bonds, OTC trading refers to trades that take place away from a MiFID II regulated venue (RM, MTF or OTF in this case). No trading obligation applies to bonds. Bonds traded via a systematic internaliser ("SI") are considered OTC.

(13) For derivatives, OTC trading refers to all derivatives not traded on an RM. This means that all trades executed on MTFs, OTFs or via an SI are considered OTC.

(14) Clearing refers to all activities occurring between the time of trading (i.e. when a trade has been agreed between the buyer and the seller) and the moment in which commitments are fulfilled, or "settled" (i.e. the seller has delivered the rights to the financial asset to the buyer and the buyer has paid the agreed amount to the seller). The main function of clearing is to insure each party to a trade against non-fulfilment of the commitments agreed to by the other party. This is commonly referred to as insuring "counterparty risk". Where the clearing service is performed centrally by a

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Regulation 2015/2205 supplementing the EMIR with regard to regulatory technical standards on the clearing obligation (OJ L 314, 1.12.2015, page 13).

14 For the purposes of this Decision, the EEA is understood to cover the 27 Member States of the European Union (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden) and the United Kingdom, as well as Iceland, Liechtenstein and Norway. Accordingly, any references made to the EEA in this Decision are meant to also include the United Kingdom (UK).

15 Because the concept of OTC trading traditionally referred to trades executed bilaterally and away from a trading venue, the industry sometimes continues to refer to OTC as a synonym of "voice/bilateral". This is, however, legally inaccurate as, based on the current applicable law, "OTC" trading can be electronic trading on an MTF (for derivatives).

16 Also referred to as shares, stocks, or more specifically company-issued equity.

17 Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, 12.6.2014.

18 Art. 23(1) MiFIR.

19 ETPs comprise exchange-traded funds (ETFs), exchange traded commodities (ETCs) and exchange traded notes (ETNs). ETPs are financial instruments that derive their value from a basket of securities or underlying assets such as stocks, bonds, commodities or indices. The most popular type of ETPs are ETFs, accounting for over 90% of ETPs. See Commission decision of 1 February 2012 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 73. This proportion is confirmed by a recent press release of ETFGI dated 16 January 2020: https://etfgi.com/news/press-releases/2020/01/etfgi-reports-assets-global-etfs-and-etps-industry-which-will-turn-30 (last accessed on 12 June 2020). In this Decision, in line with its previous decisional practice, the Commission will base its assessment of ETPs mainly on ETFs (Commission decision of 1 February 2012 in Case M.6166 – Deutsche Börse/NYSE Euronext).

third party, this third party is referred to as the central counterparty ("CCP") or clearing house. In addition to its principal function of managing counterparty risk, the CCP can also perform other ancillary activities such as the registration and verification of the trade and its counterparties and the transmission of the details of the trade to the relevant settlement body.[20]

(15) Clearing has a different relevance for different asset classes, mainly depending on the time that counterparties are exposed to each other's non-compliance risk (i.e. until the final obligations related to a traded contract are fulfilled). This time is normally rather limited with respect to cash instruments (i.e. equities and bonds), as the settlement (final delivery and payment) takes place within the next couple of days after the trade is agreed. With respect to derivatives, this time can be long, ranging from a few months to several years, depending on the exact contract terms. The clearing obligations introduced following the financial crisis of 2008 in the EEA cover all derivatives traded on an RM and certain OTC derivatives, including OTC IRDs.[21]

(16) The rate of cleared OTC IRD trades has grown from ca. 24% in 2009 to 60% in 2018 of the total amount traded (as measured by notional amounts outstanding by counterparty).[22]

3.1.2. Financial Data Products

(17) Financial data products are products that deliver financial information to the end-customer. This data is sometimes the by-product of the trading or other activities of financial players (e.g. venue data). Often financial data has also undergone aggregation, processing or enrichment (e.g. to produce consolidated content real-time datafeeds or derived content such as security identifiers or indices). Financial data can also be packaged with functionalities and workflow tools to create comprehensive solutions for the end-customer (e.g. desktop solutions).

3.2. Provision of Trading Services for Cash Bonds

(18) Throughout this Decision, the operation of trading platforms or marketplaces, and the related infrastructure for a given financial instrument or category of financial instruments, will be referred to as "the provision of trading services" for this financial instrument or category of financial instruments, or, more simply, and in line with the Commission's precedents, as "the trading" of this financial instrument or category of financial instruments.

3.2.1. Introduction to the trading and clearing of bonds

(19) Cash bonds are fixed-income securities,[23] which are issued by governments (also called "government bonds") or non-governmental institutions such as corporations (also called "corporate bonds"). In this Decision, European Government Bonds ("EGBs") refer to bonds issued by the governments of the EEA countries and Switzerland.

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20 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraph 34.

21 Art. 4(1) EMIR.

22 BIS, FSB and IOSCO (2018), Incentives to centrally clear over-the-counter derivatives, 19 November 2018, page 17, available at https://www.bis.org/publ/othp29.pdf (last accessed on 17 September 2020).

23 Fixed-income securities are tradeable debt instruments that guarantee the right to repayment, with interest, of the borrowed amount, at a specific date, to the holder. Broadly speaking, it is a synonym of bonds.

(20) As for other financial instruments, the bonds value chain includes listing, trading, clearing, and settlement/custody. Within bonds, the Transaction gives rise to horizontally affected markets (regarding trading services for EGBs and regarding D2C electronic trading services for corporate bonds), and to vertically affected markets regarding the trading and clearing of bonds.[24]

(21) Bonds are traded on the primary and secondary market. Primary market trading refers to the process of offering bonds as part of a fund-raising round. Subsequent trading of bonds takes place on the secondary market. The Transaction gives rise to horizontally affected markets only in bonds trading on the secondary market (EGB trading services and D2C electronic trading services for corporate bonds).

(22) Bonds, in particular EGB trading (on the secondary market) historically took place on a bilateral basis (e.g. via telephone and hence called "voice trading". Voice trading is used today to indicate also other channels for bilateral trading, such as messaging). Today, the majority of EGB trades are executed electronically on trading venues. Some venues offer mixed trading models, combining voice features and electronic capabilities.[25] In addition, bond trading takes place at two levels: (i) dealer-to-dealer ("D2D")[26] and (ii) dealer-to-client ("D2C").[27] Electronically-traded bonds are usually traded through a central limit order book ("CLOB") trading protocol[28] or a request-for-quote ("RFQ").[29] Moreover, as explained in recital (11) above, bond trading can occur "on venue" (i.e. on an RM, MTF, or OTF for EGBs) or OTC (e.g. through a SI for EGBs), as there is no trading obligation for EGBs and cash bonds in general.

(23) Both Parties are active in bond (government and non-government) trading services through their electronic bond trading venues (operated by MTS Group for LSEG and by Tradeweb for Refinitiv). In addition, LSEG is active in the clearing of cash bonds.

(24) As regards bond trading, the Parties' activities in the different segments of bond trading are summarised in Table 1 below.

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24 While LSEG also provides clearing services for bonds, no horizontal overlap arises from the Transaction in this regard as Refinitiv is not active in the provision of EGB clearing services.

25 The Notifying Party refers to different types of mixed models: (i) "process" trades, which refer to trades that involve some voice-based price discovery or negotiation but are executed on an electronic trading venue and (ii) "hybrid" functionality whereby counterparts can negotiate bilaterally by communicating prices via an electronic system.

26 Dealers or sell-side traders commonly refer to major investment banks that act as market makers and liquidity providers (which, in practice, commit to always quote prices to buy and sell a financial instrument. Broker-dealers (which execute trades on the behalf of their clients or their own behalf), or inter-dealer brokers (financial intermediaries between brokers) are also defined as sell-side participants in the Form CO, paragraph B.31. Dealers generally trade bonds to provide services to established clients or to minimise the costs and risks of maintaining imbalanced large financial inventories.

27 Clients are typically buy-side traders, including institutional investors (e.g. pension funds, asset managers, banks and other financial services companies, central banks and hedge funds); retail investors; governments; or corporations. Clients generally trade bonds for own-investment purposes.

28 CLOB execution protocols match and execute buy and sell orders continuously as they are received by the operator of the order book. Counterparties to a trade remain anonymous to each other when using this type of execution protocol. The Notifying Party submits that CLOB trading protocols are typically available on D2D trading venues. See, e.g. Form CO, paragraph B.37.

29 RFQ execution protocols enable market participants to request quotes from dealers and execute trades on a "disclosed" basis, i.e. the counterparties know each other's identity. The Notifying Party submits that RFQ execution protocols is used in most D2C trading venues. See, e.g. Form CO, paragraphs B.37-38.

Table 1

Key features of the Parties' EEA trading venues for EGBs					
Party	**Venue**	**Venue type**	**Participant type**	**Services provided**	**Type of issuer**
LSEG	MTS Cash	RM, MTF	D2D	Electronic	Government, Non-government
	MTS BondVision	MTF	D2C	Electronic, Process	Government, Non-government
	MOT	RM	Retail[30]	Electronic	Government, Non-government
	ExtraMOT	MTF	Retail	Electronic	Government, Non-government
	EuroTLX	MTF	Retail	Electronic	Government, Non-government
Refinitiv	Tradeweb Institutional	MTF, OTF	D2C	Electronic, Process	Government, Non-government
	Dealerweb	MTF	D2D	Electronic, Hybrid, Voice	Government, Non-government

Source: Form CO, Cash Bonds Chapter, Table 3.

3.2.2. Relevant product market definition

3.2.2.1. Previous Commission decisions

(25) The Commission has previously considered, in *Deutsche Börse/NYSE Euronext*, that the trading of bonds (i.e. government and corporate bonds, also called "cash bonds"), was not substitutable with the trading of other financial instruments, such as cash equities.[31] Within cash bonds trading, the Commission has also considered a further sub-segmentation of the market by the type of issuer. In *UniCredit/Banca IMI/Euro TLX SIM JV*, the Commission has indeed found separate markets for Italian government and non-government (i.e. corporate) bonds.[32] The Commission has however not previously assessed whether the markets for the provision of trading services for government bonds, on one hand, and for non-government bonds, on the other hand, should be further sub-segmented.

(26) With regard to clearing, and not trading, in *Deutsche Börse/London Stock Exchange Group*,[33] the Commission concluded that the provision of CCP clearing services for bonds formed a separate product market from CCP clearing services for other asset classes, such as cash equities. The Commission left open the question of whether the market for bond CCP clearing services should be further segmented on the basis, for example, (i) of the type (e.g. issuer, maturity) and liquidity of the bond that is cleared

30 Retail platforms are trading venues operated for retail trades, i.e. trades with retail clients. A retail client typically refers to a non-professional client, individual or a corporate, of limited size with limited investment experience.

31 Commission decision of 1 February 2012 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 61.

32 Commission decision of 23 November 2009 in Case M.5495 - UniCredit/Banca IMI/Euro TLX SIM JV, paragraph 24

33 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraphs 144-166.

or (ii) of whether the bond that is cleared is traded between dealers (D2D) or dealer-to-client (D2C).[34]

3.2.2.2. The Notifying Party's view

(27) At the outset, it should be noted that the Notifying Party provided its view on the product market definition of bond trading exclusively in the Form CO.[35] The Notifying Party did not respond to the Commission's preliminary views regarding the provision of trading services for cash bonds, including the considerations on market definition, set out in the decision pursuant to Article 6(1)(c) and in the Statement of Objections. Therefore, the Notifying Party did not challenge the Commission's preliminary view that the provision of trading services for EGBs constitutes a separate product market from the trading of other types of bonds, and that the provision of electronic trading services for EGBs constitutes a separate product market, which is possibly further segmented by trading channel (i.e. between the D2C and the D2D channels).

(28) In the Form CO, the Notifying Party agrees with the Commission's precedents that the trading of cash bonds is part of a separate product market from the trading of other financial instruments such as cash equities.[36] The Notifying Party considers that the relevant product market for cash bond trading is segmented by (i) issuer-type (government bonds versus non-government bonds) and (ii) trading channel (i.e. D2C versus D2D).[37]

(29) *First*, the Notifying Party considers it appropriate to segment cash bond trading services by issuer type (i.e. between government and non-government bonds), notably because (i) this distinction is used across the market, including the Celent industry reports,[38] (ii) the supply-side substitutability between government and corporate bonds is limited as different players focus on and/or compete in these two product areas, as illustrated by the fact that, *e.g.*, MTS's presence is strong in government bonds but limited in non-government bonds, while the presence of BGC/GFI's venues is *de minimis* in government bonds but material in non-government bonds, (iii) government bonds are subject to quoting requirements and pricing considerations that do not apply to corporate bonds,[39] and (iv) from buy-side market participants' perspective, government and non-government bonds are not generally substitutable in terms of risk exposure as government bonds are deemed as "risk free asset", unlike non-government bonds. The Notifying Party considers that a further segmentation within trading services for government bonds by issuing state is not appropriate, notably because (i) although government bonds can have various characteristics such as date of maturity, coupon, and nationality of sovereign issuer, these characteristics do not differ systematically across government bonds by state of

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34 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraphs 167-18.

35 Form CO, paragraphs B.146-B.166.

36 Form CO, paragraph B.146.

37 Form CO, paragraph B.148.

38 Celent is a research, advisory, and consulting firm focused on financial services technology.

39 The Notifying Parties notes that, for instance, for government bonds, primary dealers are subject to specific quoting obligations (e.g. the capital that they are required to hold) imposed by their respective Debt Management Office ("DMO") in respect of government bonds in order to ensure the DMOs carry out their responsibilities for the day-to-day management of a government's debt.

issuance; and (ii) venues that offer trading of government bonds, such as MTS, BrokerTec and Bloomberg, generally offer trading of all major EGBs.[40]

(30) *Second*, the Notifying Party considers it appropriate to segment cash bond trading services by trading channel (i.e. between D2C and D2D trading), notably because: (i) this distinction is used across the market, including in the Celent industry reports, (ii) the D2D channel is a key component of the market, allowing market makers to ensure liquidity for cash bonds (including to manage large and complex orders without shifting or destabilising the market), particularly because cash bonds generally have lower liquidity levels than other asset classes, so that achieving a certain level of liquidity is more challenging than for other asset classes, (iii) D2D trades generally require a higher level of anonymity between the parties to a given transaction than D2C trades, while the buy-side enjoys additional levels of protections under MiFID II,[41] which do not apply for D2D trades, (iv) different players focus on and compete in these two channels, as illustrated by LSEG that targets D2D trades via MTS Cash and D2C trades via MTS BondVision, (v) different market participants are active in each of these segments (dealers in D2D and dealers and customers in D2C) and (vi) a number of legal obligations are borne by dealers on D2C trades that do not apply for D2D trades (regarding, e.g. best execution, information disclosure, and assessment of suitability and appropriateness obligations).[42]

(31) *Third*, the Notifying Party does not consider it appropriate to segment cash bond trading services by trading method (i.e. between voice and electronic trading) because voice trading imposes a material competitive constraint on electronic trading venues. According to the Notifying Party, this constraint notably comes from the fact that (i) due to the larger number of unique bonds traded (compared to, e.g. cash equities), customers monitor and negotiate bond prices by using both voice and electronic trading methods,[43] (ii) the delineation between voice and electronic trading is unclear because most electronic trading venues also offer functionality that allows customers to agree trades by voice (e.g. Bloomberg's chat functionality),[44] (iii) market participants switch and multi-source between electronic and voice trading,[45] and (iv) electronic venues set up specific protocols to compete directly with voice trading methods (namely via request for quote (or "RFQ") protocols).[46]

(32) *Fourth*, the Notifying Party considers that the different execution environments[47] compete, notably because the different "on venue" environments (i.e. RMs, MTFs, and OTFs) are substitutable among themselves, and compete with OTC trading, notably because market participants' decision regarding the execution environment is highly fact and situation-specific.[48] The Notifying Party emphasizes that (i) customers can trade "on venue" or negotiate a trade bilaterally, as there is no trading obligation for cash bonds, (ii) the ability to source prices and agree trades bilaterally remains central as cash bonds are less standardized, and cash bond trades are

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40 Form CO, paragraphs B.164-166.
41 For example, in relation to best execution, information disclosure, and assessment of suitability and appropriateness obligations.
42 Form CO, paragraphs B.159-161.
43 Form CO, paragraph B.151.
44 Form CO, paragraph B.152.
45 Form CO, paragraph B.153.
46 Form CO, paragraph B.153.
47 Trading venues such as RMs, MTFs, OTFs, as well as bilaterally negotiated trades (i.e. OTC).
48 Form CO, paragraphs B.155-158.

generally less frequent and larger in size compared to other financial instruments, (iii) market participants explore options across all execution environments in order to comply with best execution requirements, and (iv) the lines between OTC and "on venue" trading are blurred as (a) venues use RFQ functionalities to mirror OTC trades and (b) large dealer banks allow execution of trades on their own single-dealer platforms (in their capacity of SIs or OTFs) or through third parties' venues to which they are connected.[49]

3.2.2.3. The Commission's assessment

A. The provision of electronic trading services for EGBs

(33) On the basis of the market investigation results and the evidence available to it, the Commission concludes that for the purposes of this Decision the provision of electronic trading services for EGBs forms a separate product market that could potentially be segmented by trading channels (i.e. between the D2D and the D2C channel).

(34) The Commission takes this view for the following reasons.

(35) *First*, the results of the market investigation confirm the Notifying Party's view that trading services for EGBs form a separate product market from the trading of other financial instruments, including corporate bonds and government bonds other than EGBs.[50] In addition, feedback from the market participants indicates that EGB trading services are largely substitutable, regardless of the country of issuance of the specific EGBs (as described in further details in recitals (36) and (37) below).

(36) From the demand-side perspective, the market investigation indicates that around half of the customers who responded to the relevant questions trade all EGBs.[51] Regarding the other half of customers who do not trade all EGBs, these customers explain that they decide not to trade certain EGBs because of general considerations of "trading policy" that are not necessarily related to the product characteristics of specific EGBs. For several customers, such as Danmarks Nationalbank (a buy-side customer), their EGB trading mandate "*depend[s] on the credit rating for the respective countries*".[52] This means that the list of the EGBs that they can trade is dynamic and fluctuates with credit ratings. In addition, while some customers seem to have lists of countries for which they can or cannot trade bonds, these lists varies according to the customers. By way of example, the buy-side customer Alte Leipziger explains that its company decided to trade "*[o]nly EGBs in EUR*",[53] while Cassa Sovvenzioni Banca D'Italia, another buy-side customer, says that it does not trade "*EGB issued by: Greece, Ireland, Austria, Finland, Netherlands, Belgium, Luxembourg*".[54] Consequently, no clear and objective distinction between EGBs by state of issuance can be drawn from a demand-side perspective. Importantly, no such distinction can be drawn at the level of the provision of EGB trading services.

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49 Form CO, paragraph B.156.

50 Questionnaire 5 to EGB buy-side customers, Doc ID 6476; Questionnaire 6 to EGB sell-side customers, Doc ID 6477; and Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

51 Question 7, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 7, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

52 Question 7.1, Questionnaire 5 to EGB buy-side customers, response of Danmarks Nationalbank, Doc ID 6476.

53 Question 7.1, Questionnaire 5 to EGB buy-side customers, response of Alte Leipziger, Doc ID 6476.

54 Question 7.1, Questionnaire 5 to EGB buy-side customers, response of Cassa Sovvenzioni Banca D'Italia, Doc ID 6476.

(37) From a supply-side perspective, the vast majority of competitors indicate that they provide trading services for all EGBs (i.e. bonds of all the EEA and Swiss governments).[55] The only exceptions reported were marginal: (i) the CME group, a D2D competitor specifies that it offers trading services for all EGBs eligible for central clearing,[56] and (ii) BME Clearing S.A.U. informs that it does not offer trading services for Swiss bonds.[57] There is therefore a strong degree of supply-side substitutability between the trading services for EGBs.

(38) *Second*, contrary to the Notifying Party's view, the result of the market investigation indicates that EGB trading services managed bilaterally via voice (i.e. outside of an electronic trading venue), are not fully substitutable with EGB trading services operated electronically by trading venues.

(39) From a demand-side perspective, the vast majority of sell-side dealers consider that their bilateral voice trading offer does not constrain electronic trading venues' fee setting.[58] These customers explain that voice EGB trading does not exercise an important constraint because voice EGB trading is usually more expensive than electronic EGB trading. By way of example, KBC, a sell-side customer, explains, "*[f]ees for electronic trading need to rise considerably before a switch can be considered*",[59] and another said "*[w]e don't see a clear correlation between voice trading and platform fees*".[60]

(40) The market investigation also indicates that customers rely much more often on electronic EGB trading than voice EGB trading. Market feedback indicates that voice EGB trading is rather occasional and typically chosen for specific types of trades, namely sensitive (large) trades and/or trades of illiquid bonds.[61] Market participants explain that voice can be preferred for these occasional trades as electronic platforms may not provide the necessary liquidity, or an electronic trade might impact the liquidity and/or price of the EGB traded.[62]

(41) In addition, some customers explain that they do not rely on voice trading at all to trade EGBs. A reason for this choice, or more generally for the customer's preference to trade EGBs electronically is that electronic trades are perceived by customers as more efficient for reporting purposes and in terms of execution timing. By way of example, Swiss Life AM, a buy-side customer, explains that the main reasons for choosing to trade electronically are, "[f]*or compliance reasons in order to prove the best execution and efficiency of execution*",[63] and Deutsche Bank AG, another buy-side customer, explains that it prefers electronic trading "*for efficient*

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55 Question 15, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

56 The market investigation confirms the Notifying Party's view that D2D trades are generally cleared by a CCP.

57 Question 15.1, Questionnaire 7 to EGB trading venue competitors, responses of BME Clearing S.A.U. and the CME Group Inc., Doc ID 6478.

58 Question 12, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

59 Question 12.1, Questionnaire 6 to EGB sell-side customers, response of KBC, Doc ID 6477.

60 Question 12.1, Questionnaire 6 to EGB sell-side customers, response of BBVA, Doc ID 6477.

61 Questions 9.1.2 and 9.2.2, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 9.1, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

62 Questions 9.1.2 and 9.2.2, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 9.1, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

63 Question 9.1, Questionnaire 5 to EGB buy-side customers, response of Swiss Life AM, Doc ID 6476.

access to market liquidity and best prices. In addition, electronic venues also facilitate automated execution more easily".[64]

(42) From a supply-side perspective, the vast majority of providers of EGB trading services also consider that the possibility for customers to trade by voice does not constrain their fee setting.[65] Like customers, competitors explain that voice and electronic EGB trading have differentiated prices. For instance, CME Group Inc. explains that trading EGBs via voice is "*more expensive than electronic because of associated costs*" [66] and MarketAxess Holdings indicates that "*voice fees remain higher than electronic fees*".[67] Feedback from competitors showed that the pricing features of voice and electronic EGB trading services differ, notably because (i) fees are usually more transparent on electronic platforms than when trading by voice and (ii) most electronic trading platforms charge fees that are not included in a mark-up whereas when trading by voice, fees are often included in the mark-up.[68]

(43) In addition, most of the providers of EGB trading services are active either in voice trades or in the provision of electronic trading services.[69] While some suppliers provide what the Notifying Party calls "hybrid" features,[70] suppliers generally offer to execute trades, either electronically on venue, or bilaterally. Moreover, shifts in trading flows between electronic and voice EGB trades seem limited. Some providers of electronic EGB trading services have indicated that they have attracted EGB voice trade flows of liquid securities.[71] Similarly, some competitors consider that voice trading could attract electronic flows for less liquid products or large orders.[72] However, the flows for which switching is possible appear to be limited. Indeed, voice providers generally indicate that attracting electronic EGB flows is not applicable to their business.[73]

(44) The market investigation also indicated that services provided by SIs for EGB trading are not fully substitutable with electronic trading venues. By way of example, JP Morgan, a sell-side dealer, explains that it "*does not consider itself a trading venue* competitor *to LSEG or Refinitiv*".[74]

(45) Based on the above, the market investigation indicates that electronic "on venue" trading services for EGBs are part of a separate product market from EGB trading services operated via voice and SIs. In contrast, the market investigation largely confirms the Notifying Party's view that all "on venue" EGB trading environments (i.e. RM, MTF, and OTF) compete.

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64 Question 9.1, Questionnaire 5 to EGB buy-side customers, response of Deutsche Bank AG, Doc ID 6476.

65 Question 8, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

66 Question 18.1, Questionnaire 7 to EGB trading venue competitors, response of CME Group Inc, Doc ID 6478.

67 Question 18.1, Questionnaire 7 to EGB trading venue competitors, response of MarketAxess Holdings, Doc ID 6478.

68 Question 18.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

69 Questions 5 and 6, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

70 Hybrid features generally allow customers to chat on an electronic venue where EGB trades are executed electronically, or to get electronically trading counterpart's contact for trades to be executed bilaterally.

71 Question 19.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

72 Question 19.2, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

73 Question 19.2, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

74 Question 1, Questionnaire 7 to EGB trading venue competitors, response of JP Morgan, Doc ID 6478.

(46) *Third*, regarding the possible segmentation of the relevant product market based on the trading channel, the Commission notes that D2C trades (i.e. trades between a dealer and a customer) and D2D trades (i.e. trades between dealers) are largely distinct today from a demand-side substitutability perspective. D2D trading services are provided to dealers looking to trade with other dealers while D2C trading services are provided to dealers wishing to trade with a client and *vice versa*. For this reason, D2D and D2C trades present different characteristics, notably in terms of anonymity of the trading parties (as inter-dealer trades require a higher level of anonymity, which is not necessary in a trade involving a client relationship, as it is the case of D2C trades). D2D venues generally offer CLOB protocols (see Section 3.2.1 above) allowing the parties to a trade to remain anonymous, while D2C venues generally offer RFQ protocols (see Section 3.1.2.1 above) which disclose the identity of the counterparties to each other. In addition, D2C trades are characterised by the customer relationship built between a dealer and its client, and the fact that the client generally chooses the trading channel (although dealers generally bear the trading fees).

(47) From a supply-side substitutability perspective, most of the providers of electronic EGB trading services are active mainly in D2C or in D2D trading services. However, a number of market players offer trading services for both D2C and D2D trading, including the Parties and another competitor (BME).[75] In addition, some providers of EGB trading services focusing on D2C trades explained that they do allow trades between dealers (i.e. D2D trades) on their venues.[76]

(48) A majority of customers explain that they have executed D2D trades on D2C venues in the past 3 years.[77] By way of example, Commerzbank AG, a sell-side customer, explains that "*D2D/D2C venues have started to provide this service which has been driven by market demand from both the buy & sellside*".[78] Banco BPM SpA, another sell-side customer, explains as well that "*[t]he differences between D2D and D2C platforms are less huge than in the past; this brings to the possibility in particular of executing orders for customers into D2D platforms too as well as the opposite*".[79] UniCredit, a sell-side customer, explains that it does so for "*trades on bonds where [they] weren't liquidity provider*"[80], and Nomura International plc, still on the sell-side of EGB trading, explains that "*[they] do not initiate such trades, however [they] execut[e] D2D trades on D2C venues to provide liquidity to non-EGB market-making desks at other dealers on D2C venues*".[81]

(49) In the same vein, some providers of EGB trading services consider that this possibility to perform D2D trades on D2C platforms will materially increase in the next 3 years.[82] A minority of sell-side customers share this view.[83] KBC, a sell-side customer further highlights that it "*expect*[s] *mixed platforms to grow at the expense*

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75 Questions 7.1 and 7.2, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

76 Question 10, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

77 Question 20, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

78 Question 20.1, Questionnaire 6 to EGB sell-side customers, response of Commerzbank AG, Doc ID 6477.

79 Question 20.1, Questionnaire 6 to EGB sell-side customers, response of Banco BPM SpA, Doc ID 6477.

80 Question 20.1, Questionnaire 6 to EGB sell-side customers, response of UniCredit SpA, Doc ID 6477.

81 Question 20.1, Questionnaire 6 to EGB sell-side customers, response of Nomura International plc, Doc ID 6477.

82 Question 10, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

83 Question 20.2, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

of pure D2D or D2C platforms".[84] Similarly, another sell-side customer, Banco BPM SA considers that "[t]*his is a real possibility*" that it will execute more D2D trades on D2C venues in the next 3 years".[85]

(50) In addition, some competitors indicate that they lost in the past 3 years, or expect to lose in the next 3 years, a material part of their D2D EGB trading volumes to D2C platforms (or *vice versa*).[86]

(51) The Commission also notes that a number of providers of D2C EGB trading services do consider competitors' D2D fees when setting their own D2C trading fees, and *vice versa* (i.e. some providers of D2D EGB trading services do consider competitors' D2C fees to set their own D2D trading fees).[87] By way of example, BME Clearing, a competitor, explains that, for setting D2D trading fees, "*[w]e compare execution cost all over the different trading venues to make our offer competitive*".[88] More generally, Eurex explains that "*D2C and D2D venues compete*" for cash bonds.[89]

(52) Consequently, the distinction between electronic D2C and D2D trading is expected to fade in the near future (as it has recently happened in the United States of America).[90] Market participants have divergent views as to the likelihood of this convergence process but the market investigation results indicate that the development will likely depend on a number of factors, notably the transparency of the market; and the willingness of market participants (including the combined entity)[91] to operate this shift, and possibly converge more. According to a number of market participants, a convergence to an all-to-all trading would not necessarily remove the necessity to adopt different protocols for different participant types.[92] Asked whether, and if so why, they expect, in the next 3 years, a convergence of D2C and D2D trading into "all-to-all" trading in the EGB market, Bloomberg, a D2C competitor of the Parties explains, "*[i]n fixed income trading, D2D platforms increasingly allow the buy side (liquidity takers) to access "non-traditional liquidity providers", (e.g. hedge funds); this expansion of D2D platforms towards "clients" blurs the line between the previously distinct D2C and D2D venues. The distinction may disappear over time as markets evolve and liquidity is redistributed*."[93] Other competitors expect D2C and D2D EGB trading to converge. In this regard, BME Clearing S.A.U explains that "*institutional clients ar[e] becoming more important sources of liquidity to the detriment of pure primary dealers*",[94] and MarketAxess explains as well that "*the convergence of D2D and D2C trading of European*

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84 Question 20.2, Questionnaire 6 to EGB sell-side customers, response of KBC, Doc ID 6477.

85 Question 20.2, Questionnaire 6 to EGB sell-side customers, response of Banco BPM SA, Doc ID 6477.

86 Questions 24 to 26, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

87 Questions 21 and 22, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

88 Question 21.1, Questionnaire 7 to EGB trading venue competitors, response of BME Clearing S.A.U, Doc ID 6478.

89 Minutes of a call with Eurex on 24 March 2020 at 09:30 PM, Doc ID 3567.

90 Minutes of a call with Eurex on 24 March 2020 at 09:30 PM, Doc ID 3567: "The two segments are increasingly merging, following the example of the US where there is no separation between D2D and D2C electronic trading."

91 In this Decision, the "combined entity" refers to the combined business of LSEG and Refinitiv combined.

92 Question 28, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

93 Question 26.1, Questionnaire 7 to EGB trading venue competitors, response of Bloomberg, Doc ID 6478.

94 Question 26.1, Questionnaire 7 to EGB trading venue competitors, response of BME Clearing S.A.U, Doc ID 6478.

government bonds is enabled by technology and driven by client demand with the aim to have more market participants trading on the same venue, which in turn increases liquidity".[95]

(53) The Commission concludes that the question of the whether the D2C electronic trading of EGB and the D2D electronic trading of EGB form part of two separate product markets can ultimately be left open for the purposes of this Decision because competition concerns arise under all possible market segments. As further evidenced in Section 4.4.1.2 below, the Transaction indeed significantly impedes effective competition be it at the level of EGB D2C electronic trading, or of EGB D2D electronic trading, or of EGB electronic trading overall.

(54) Based on the above and the evidence available to it, the Commission therefore concludes that for the purposes of this Decision the provision of electronic EGB trading services constitutes a separate product market, which may be further segmented by trading channel (namely, between the D2C and the D2D trading channels).

B. The provision of trading services for other bonds than EGBs

(55) Based on the results of the market investigation and the evidence available to it, the Commission considers that the question of the precise product market definition for the provision of trading services for bonds other than EGBs can be left open for the purposes of this Decision. This is because the Transaction would not result in a significant impediment to effective competition under any of the plausible product market segmentations, namely regardless of whether the market be segmented by (i) issuer-type (i.e. between corporate bonds and government (non-EGB) bonds), (ii) trading channel (i.e. between the D2C and the D2D channels), as claimed by the Notifying Party,[96] or by (iii) execution method (i.e. between voice and electronic).

3.2.3. Relevant geographic market definition

3.2.3.1. Previous Commission decisions

(56) The Commission did not previously assess the relevant geographic market for the provision of trading services for bonds specifically.

(57) However, the Commission previously assessed the relevant geographic market for the provision of clearing services for bonds. In *Deutsche Börse/NYSE Euronext*,[97] the Commission considered whether the geographic market for cash bond clearing services could be at least EEA-wide but ultimately left this question open. In *Deutsche Börse/London Stock Exchange Group*,[98] the Commission however considered that the market for cash bond clearing was EEA-wide.

3.2.3.2. The Notifying Party's view

(58) The Notifying Party considers that the conclusions on the geographic market definition in the above-mentioned Commission's precedents regarding cash bond clearing are consistent with the Parties' experience in cash bonds trading, and its

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95 Minutes of a call with MarketAxess on 6 January 2020 at 05:00 PM CET, Doc ID 523.

96 See Section 3.2.2.2 above.

97 Commission decision of 1 February 2012 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 90.

98 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraph 172.

potential sub-segments.[99] According to the Notifying Party, this is because investors and their intermediaries residing in a specific country also use trading venues in other countries.[100] However, the Notifying Party considers that it would ultimately not be necessary for the Commission to reach a definitive view on geographic market definition.[101]

(59) As mentioned in recital (27) above, the Notifying Party did not respond to the Commission's preliminary views set out in the decision pursuant to Article 6(1)(c) and in the Statement of Objections regarding the electronic trading of EGBs, and therefore did not provide further comments on, nor challenged, the Commission's preliminary view that the market for the provision of electronic EGB trading (and its possible D2C and D2D sub) is at least EEA-wide in scope.

3.2.3.3. The Commission's assessment

A. The provision of electronic trading services for EGBs

(60) On the basis of the market investigation results and the evidence available to it, the Commission considers that the provision of electronic trading services for EGBs is at least EEA-wide in scope.

(61) The Commission takes this view for the following reasons.

(62) *First*, suppliers and customers of EGB trading services indicate that (i) the vast majority of customers are located in the EEA, although some customers also have trading desks located outside Europe, (ii) providers of EGB trading services are active in the EEA, some with a national footprint and others also outside the EEA, and (iii) suppliers typically set trading fees at EEA level, although global players may set their fees at the worldwide level.[102]

(63) *Second*, the Commission considers that the question of whether the geographic scope of electronic EGB trading services is EEA-wide or worldwide can be ultimately left open as it does not affect the Commission's assessment.[103] As indicated in Section 4.4.2 below, indeed, the Commission considers that the Transaction would not result in a significant impediment to effective competition due to horizontal effects regardless of whether the relevant geographic market is EEA-wide or worldwide.

B. The provision of trading services for other bonds than EGBs

(64) Based on the results of the market investigation and the evidence available to it, the Commission considers that the question of the precise geographic market definition for the provision of trading services for bonds other than EGBs can be left open. This is because the Transaction would not result in a significant impediment to effective competition under any of the plausible geographic market segmentation, namely regardless of whether the market for the trading of bonds other than EGBs, and its

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99 Form CO, paragraph B.170.

100 Form CO, paragraph B.170.

101 Form CO, paragraph B.171.

102 Question 16, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Question 8, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; and Question 8, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

103 As indicated in Section 4.4.1, the Commission considers that the Transaction would significantly impede effective competition due to horizontal effects in the supply of EGB trading services. The Transaction would result in a significant impediment to effective competition due to horizontal effects in the supply of EGB trading services regardless of whether the relevant geographic market is EEA-wide or worldwide.

possible sub-segments (by issuer-type, trading channel, and execution method), is EEA-wide or worldwide.

3.2.4. Conclusion

(65) Based on the above and the evidence available to it, the Commission considers that there is a separate relevant market for the provision of electronic trading services of EGBs, which is possibly further segmented by trading channel (between D2C and D2D) and which is at least EEA-wide in scope. However, the Commission concludes that the question of whether the market for the provision of EGB trading services should be segmented by trading channel and/or should be defined as EEA-wide or global, can be ultimately left open for the purposes of this Decision because the Transaction would significantly impede effective competition due to horizontal concerns regardless of whether or not the market for the electronic provision of EGB trading services should be further segmented by trading channel and/or should be defined as EAA-wide or worldwide.

(66) In addition, based on the above and the evidence available to it, the Commission considers that the provision of trading services for bonds other than EGB is a separate market, which is possibly further segmented by issuer-type (between government bonds and non-governments), trading channel (between D2C and D2D), and execution method (between electronic and voice trading) which is EEA-wide or worldwide. However, the Commission concludes that the question of whether the market for the provision of trading services for non-EGB bonds should be segmented by issuer-type, trading channel, and execution method and/or should be defined as EEA-wide or global, can be ultimately left open for the purposes of this Decision because the Transaction does not significantly impede effective competition under any of these possible market segmentations.

3.3. Provision of Clearing Services for Cash Bonds

3.3.1. Relevant product market definition

3.3.1.1. Previous Commission decisions

(67) The Commission has previously considered the product market definition of the provision of clearing services for cash instruments and cash bonds in *Deutsche Börse/NYSE Euronext*,[104] and *Deutsche Börse/London Stock Exchange Group*.[105]

(68) In *Deutsche Börse/NYSE Euronext*, the Commission considered whether clearing services for cash instruments (comprising securities and bonds) provided by CCPs form a separate product market, but ultimately left this question open.[106]

(69) In *Deutsche Börse/London Stock Exchange Group*, the Commission considered that clearing of bonds form a separate product market from CCP clearing of other asset classes,[107] and that CCP clearing of bonds and other forms of "*risk management*" of bonds do not form part of the same market.[108] In *Deutsche Börse/London Stock*

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104 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext.

105 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group.

106 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 89.

107 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraphs 145-152.

108 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraphs 153- 166.

Exchange Group, the Commission has further considered whether the product market of CCP cash bond clearing services should be further sub-segmented on the basis of the other potential segmentations, for example the type and liquidity of the bond (for example German government bonds) that is cleared or whether the bond that is cleared is traded D2D and D2C, but ultimately left this question open.[109]

3.3.1.2. The Notifying Party's view

(70) The Notifying Party considers that it is not necessary for the Commission to reach a definitive view on the relevant product market for cash bond clearing given that the Transaction would not give rise to any horizontal or non-horizontal competition concerns on any plausible basis, in particular because generally only D2D government bond trades are cleared (in which Tradeweb's position is very small).[110]

3.3.1.3. The Commission's assessment

(71) On the basis of the market investigation results and the evidence available to it, the Commission considers that, for the purposes of this Decision, the provision of clearing services for cash bonds form a separate product market. The Commission further considers that the question of wether this market could be sub-segmented by trading channel (D2D versus D2C), or by type of issuer (e.g. government and non-government bonds) or by liquidity can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition (via vertical effects) irrespective of whether such sub-market should apply. The Commission takes this view for the following reasons.

(72) *First*, the Commission considers that CCP clearing of cash bonds should be analysed separately from CCP clearing of other asset classes such as cash equities.[111]

(73) The market investigation in this case did not provide any evidence casting doubt on the Commission's previous findings that, from a demand-side perspective, customers' demand usually relates to the clearing of individual transactions, in this case of individual cash bonds transactions, pointing to the existence of a market limited to CCP clearing of cash bonds.

(74) Similarly, the market investigation in this case did not provide any evidence casting doubt on the Commission's previous findings that, in relation to supply-side substitutability, certain elements indicate that the degree of supply-side substitutability between CCP clearing of cash bonds and CCP clearing of other asset classes is limited. First, clearing requires specific authorisations per asset class and depends on instrument specific expertise and technology, even if the basic infrastructure would appear to be common across financial instruments. In addition, clearing houses that offer one category of instruments are unlikely to start offering clearing services for another category of instruments within a relatively short time frame and without incurring significant investment costs (including building out workflow, creating or adapting a guarantee fund, devising risk models, purchasing underlying data, adopting or creating new IT systems, establishing connections, etc.). The market investigation also indicated that from a supply-side point of view, due to

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109 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse / London Stock Exchange Group, paragraphs 167-168.

110 Form CO, B.169.

111 See also, regarding a separate product market for the clearing of cash bonds, Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraphs 145ff, and Case COMP/M.6166 – Deutsche Börse / NYSE Euronext, paragraph 89.

regulatory approval processes and technological requirements, CCPs active in one asset class need to invest 1-2 years and considerable expense in order to expand into another asset class.[112] In addition, in view of the importance of clearing houses from a systemic risk point of view, launching a new clearing service also (and importantly) requires a detailed regulatory review. Obtaining the necessary approvals for a new clearing service (i.e. for a new asset class) therefore cannot be done swiftly.

(75) *Second*, the Commission considers that the question of whether the provision of cash bond clearing services should be segmented by trading channel and/or issuer type and/or liquidity can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition (via vertical effects).

(76) With respect to a potential segmentation by trading channel and/or issuer type, the Commission notes that the market investigation provided no elements that would contradict the Notifying Party's statement that the vast majority of CCP activity for cash bonds clearing relates to D2D government bond trades (because D2D trades are typically conducted anonymously and dealers cannot identify the other counterparty to the trade to manage risk bilaterally), while D2C bond trades are almost entirely uncleared. In this regard, the Commission notes as well that, with regard to EGBs, the market investigation suggest that the vast majority of buy-side customers do not clear EGBs, but rather prefer to settle EGB trades bilaterally with their counterparty.[113] In this context, the wider market for the clearing of bonds is equivalent or very similar to the narrower market for the clearing of D2D government bonds, and the potential segmentations of the bond clearing market by trading channel and/or issuer type appears of little relevance.

(77) Finally, with respect to a potential segmentation of the bond clearing market by liquidity of the bond, the Commission notes that the market investigation provided no elements that would contradict the Notifying Party's view that such a market segmentation is not of particular relevance. In addition, as a subsidiary element, the Commission observes that as there is no measurement scale for liquidity, it seems difficult from a practical point of view to define clear cut categories encompassing various types of bonds based on their liquidity.

Conclusion

(78) Based on the above and the evidence available to it, the Commission concludes that the provision of CCP clearing services for cash bonds is a separate product market and considers that the question of whether cash bond clearing services should be segmented by trading channel or issuer type can be ultimately left open for the purposes of this Decision because the Transaction does not significantly impede effective competition (due to vertical effects) regardless of the precise market definition (i.e. of whether the market for bond clearing services forms a single market or should be segmented by trading channel or issuer or liquidity type).

3.3.2. Relevant geographic market definition

3.3.2.1. Previous Commission decisions

(79) The Commission has previously considered the geographic market definition of the provision of clearing services for cash instruments and cash bonds in *Deutsche*

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112 Question 13, Questionnaire 16 to general clearing competitors, Doc ID 6466.

113 Question 37, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

Börse/NYSE Euronext, [114] and *Deutsche Börse/London Stock Exchange Group*.[115] In *Deutsche Börse/NYSE Euronext*, the Commission has considered whether the market of clearing services for cash instruments could be at least EEA-wide but ultimately left the market definition open.[116] In *Deutsche Börse/London Stock Exchange Group*, the Commission concluded that the geographic market for cash bonds clearing services was EEA-wide, including because the market investigation showed that market participants generally purchase clearing services for bonds in the EEA.[117]

3.3.2.2. The Notifying Party's view

(80) The Notifying Party considers that it is not necessary for the Commission to reach a definitive view on geographic market definition for the clearing of cash bonds as no (non-horizontal) competition concerns arise on any plausible basis.[118]

3.3.2.3. The Commission's assessment

(81) On the basis of the market investigation results and the evidence available to it, and for the reasons detailed below, the Commission considers that, while the geographic market for bonds clearing, and its possible sub-segments by issuer type and liquidity and trading channel is likely EEA-wide, the question of whether the relevant geographic market for the provision of CCP clearing services for bonds is EEA-wide or broader (e.g. worldwide) in scope can be ultimately left open given that the Transaction does not significantly impede effective competition, due to vertical effects (input or customer foreclosure), regardless of whether the geographic market definition is EEA-wide or worldwide.

(82) The market investigation in this case did not yield any evidence that would contradict the Commission's precedent findings that the geographic scope of the market for bonds clearing services is EEA-wide.

(83) With regard to clearing services in general, including but not limited to cash bonds, the majority of CCPs that responded to the market investigation indicate that they offer clearing services within the EEA and three CCPs (representing 27% of the respondents) indicate that they offer clearing services at worldwide level. In addition, these CCPs active at worldwide or EEA level also set clearing fees at worldwide or EEA-level.[119] In terms of the competition constrains as viewed by competitors, a small majority of respondents consider that their CCP competitors are active at worldwide level.[120]

(84) With regard to EGB clearing, the CCPs that responded to the market investigation indicate that they do not provide clearing services for customers located outside the EEA,[121] and that they set prices for EGB clearing at EEA level.[122] In addition, when listing the companies that they consider to be the leading CCPs for EGBs, these

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114 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext.

115 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group.

116 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 90.

117 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraphs 169-172.

118 Form CO, paragraph B.173.

119 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

120 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

121 Question 10.1, Questionnaire 17 to EGB clearing competitors, Doc ID 6467.

122 Question 10.2, Questionnaire 17 to EGB clearing competitors, Doc ID 6467.

CCPs listed European-based clearing houses, namely LCH, Eurex, Six, and CC&G.[123]

(85) Therefore, considering the demand and supply-side substitutability, the Commission considers that the geographic scope of the relevant market for the provision of trading services for bonds, and its possible sub-segments, is at least EEA-wide.

3.3.3. Conclusion

(86) Based on the above and the evidence available to it, the Commission considers that the provision of bond clearing services constitutes a separate product market, which can be segmented between the clearing of D2C and D2D-traded bonds. However, the Commission considers that the question whether the market for the provision of bond clearing services is segmented by trading channel (i.e. between the D2C and the D2D channels), or by issuer or liquidity type, and/or whether its scope is EEA-wide or worldwide, can be ultimately left open for the purposes of this Decision because the Commission's conclusions that the Transaction does not significantly impede effective competition, due to vertical effects (customer and input foreclosure), would not change regardless of whether the market for the provision of bond clearing services is segmented by trading channel (i.e. between the D2C and the D2D channels), issuer or liquidity type and/or whether or not its scope is EEA-wide or worldwide.

3.4. Provision of Clearing Services for Repos

3.4.1. Relevant product market definition

3.4.1.1. Previous Commission decisions

(87) In *Deutsche Börse/LSEG*, the Commission analyzed the market for provision of trading and clearing services for repurchase agreements (repos).[124] The Commission considered three possible segmentations between (i) general and specific repos, (ii) non-triparty and triparty repos; and (iii) ATS-traded and bilaterally traded (non-ATS) repos.

(88) *First*, The Commission concluded that ATS-traded repos form a product market which is distinct from the one comprising non-ATS repos.[125] *Second*, the Commission decided that triparty repos and non-triparty repos are not part of the same product market.[126]

(89) With respect to ATS-traded triparty repos, the Commission noticed that the choice of collateral management is predetermined by where the repos is traded and thus, the Commission considered appropriate to examine these services as a bundle and belonging to the same product market.[127] Similarly, the Commission considers that there is a market for bundles comprising ATS trading and CCP clearing for non-

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123 Question 23, Questionnaire 17 to EGB clearing competitors, Doc ID 6467.

124 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 207ff.

125 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 243ff.

126 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 231ff.

127 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 338ff.

triparty repos. However, with respect to non-triparty repos, the Commission has not reached a decisive conclusion.[128]

(90) The Commission examined separately the markets for (i) ATS traded and CCP cleared non-triparty repos, and (ii) the market for ATS traded and CCP cleared triparty repos.[129]

3.4.1.2. The Notifying Party's view

(91) The Notifying Party agrees with the segmentation between ATS traded and non-ATS traded repos.[130] The Notifying Party agrees with the distinction between triparty and non-triparty repos.[131]

(92) Given the negligible presence of both Parties on the markets for non-ATS traded repos, the Notifying Party submits that the Commission does not need to consider further sub-segmentations into the market definition for non-ATS traded repos. According to the Notifying Party, the Parties' presence in the market would remain limited on any plausible further segmentation of the non-ATS traded repos.[132]

3.4.1.3. The Commission's assessment

(93) Based on the market investigation results and the evidence available to it, the Commission considers that the relevant product market is the provision for clearing services for repos, which is segmented between (i) non-triparty and triparty repos and (ii) ATS-traded and bilaterally traded (non-ATS) repos.

3.4.2. Relevant geographic market definition

3.4.2.1. Previous Commission decisions

(94) In *Deutsche Börse/London Stock Exchange Group*, the Commission considered that the relevant geographic scope of the markets for ATS traded repos is EEA-wide in scope.[133]

3.4.2.2. The Notifying Party's view

(95) The Notifying Party agrees with the findings in the Commission's precedents regarding the geographic market for ATS traded repos.[134] The Notifying Party considers that the Commission does not need to reach a view on the geographic scope of the market for non-ATS traded repos, given the limited presence of the Parties in the non-ATS repos trading and clearing.[135]

3.4.2.3. The Commission's assessment

(96) Based on the market investigation results and in line with the Notifying Party's arguments and the previous decisions, the Commission considers that the geographic market for the clearing of repos and its sub-segments thereof is EEA-wide.

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128 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraphs 367 and 368.

129 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 378.

130 M.9564_Cash_Bonds_Annex 10, paragraph 2

131 M.9564_Cash_Bonds_Annex 10, paragraph 10

132 M.9564_Cash_Bonds_Annex 10, paragraph 4

133 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 383.

134 M.9564_Cash_Bonds_Annex 10, paragraph 6

135 M.9564_Cash_Bonds_Annex 10, paragraph 6

3.4.3. Conclusion

(97) In conclusion, the Commission considers that the provision of clearing services for repos forms a relevant product market, which is segmented between (i) non-triparty and triparty repos and (ii) ATS-traded and bilaterally traded (non-ATS) repos and is EEA-wide.

3.5. Provision of Trading Services for Financial derivatives

3.5.1. Introduction to the trading and clearing of derivatives

(98) Financial derivatives[136] are bilateral contracts that do not transfer ownership of underlying financial assets but derive their value from such assets. Financial derivatives enable a transfer of risk between two counterparties without needing to invest in the underlying financial assets.

(99) There are different types of financial derivatives, such as equity derivatives, credit default swaps, FX derivatives, and IRDs. In the present case, the Transaction gives rise to vertically affected markets only with regard to IRDs and FX products. For this reason, only these two types of financial derivatives are described below.

Interest-rate derivatives

(100) Interest-rate derivatives, or IRDs, are contracts used to speculate on or hedge against a movement in interest rates, for instance by transforming a floating or variable interest-rate exposure to a fixed interest rate exposure or vice versa, depending on the respective trader's position/risk to be insured.

(101) The main types of IRD contracts are options, futures/forwards and swaps. Options are contracts between two counterparties under which the option buyer acquires the right (against the payment of a premium), but not the obligation, to buy from, or sell to, the option seller a specific amount of the underlying asset at a specific "strike price" at or before a specified date.[137] A future/forward is a contract between two counterparties under which the seller agrees to sell to the buyer a specified amount of the underlying asset (or its cash equivalent) at a specified future date at a price agreed at the time of the conclusion of the contract.[138] A swap is an agreement between two counterparties to exchange a sequence of cash flows over a period of time, for example fixed or floating interest rates in the case of interest-rate swaps.[139]

(102) Options are traded on-exchange as well as OTC, while futures are only traded on-exchange, and forwards and swaps only OTC. Hence, there is a certain overlap of the distinction by type of contract and by execution environment (i.e. exchange-traded vs OTC discussed below).

(103) "On-exchange"-traded IRDs are usually traded through a CLOB trading protocol (see recital (22), in which case they are referred to as exchange-traded IRDs or "ETD IRDs"). In the context of IRDs, OTC can refer to two execution methods: (i) IRDs traded via voice, i.e. bilaterally between two counterparties, for example, in a phone

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136 As opposed to other types of derivatives based on commodities, energy or freight, see Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 359ff.

137 Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 739.

138 Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 740.

139 Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 741.

call or chat conversation, or (ii) IRDs traded electronically via an MTF or OTF often via an RFQ trading protocol (see recital (22), above).

(104) The Parties are active in trading and clearing services for derivatives in several asset classes (equity derivatives, credit default swaps, FX derivatives and IRDs. While Refinitiv is active through Tradeweb offering OTC derivative trading services, LSEG offers only exchange-traded derivatives trading through its venues CurveGlobal and IDEM. At the clearing level, Refinitiv is not active. LSEG is active through LCH and Cassa di Compensazione e Garanzia (CC&G) in providing clearing services for both exchange-traded and OTC derivatives in the asset classes mentioned above.

Foreign exchange products

(105) FX products refer to various contracts, which are traded and possibly cleared, for the exchange of currency pairs whose payoff depends on the foreign exchange rate(s) of two (or more) currencies over time. FX products can be used for a number of reasons, e.g., to obtain currency, to provide exposure or hedge against risk with respect to changes in exchange rates over time, or for investment purposes. The most common FX products are spots, swaps, forwards, non-deliverable forwards (NDFs), futures and options.[140]

(106) FX contracts can be traded either on an exchange or OTC but the majority of FX trading takes place OTC. Most FX products are available for OTC trading; only futures and a small volume of options are traded on exchange; and market demand for exchange-traded FX products is very limited relative to OTC products. According to the Notifying Party, the daily average turnover of FX products traded OTC exceeded EUR 5.7 trillion between April 2016 and April 2019, while only EUR 0.1 trillion was traded on exchange in the same period (i.e. less than 2%).[141]

(107) With regard to the Parties' activities in FX products, Refinitiv is active upstream in trading through FXall (for D2C FX trades) and Matching (for D2D FX trades) and LSEG is active downstream in clearing through LCH's ForexClear (for OTC-traded FX products). As such, the Transaction gives rise to a vertically affected market regarding the trading and clearing of OTC FX products. As neither LSEG nor Refinitiv offers exchange-traded FX products or clearing services for such products, there is no horizontal overlap or non-horizontal relationship between the Parties in relation to exchange-traded FX products.

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140 Spots are contracts between two parties to buy one currency against selling another currency at an agreed price for settlement on the 'spot' date (usually within two days from when the trade is initiated). Swaps are contracts including forwards and NDFs involving the simultaneous purchase and sale of identical amounts of one currency for another with two different value dates; traded OTC. Forwards are contracts to exchange a pair of currencies at a set rate on a future (or 'forward') date; forwards are traded OTC as their terms and settlement dates are flexible and bespoke to the trading counterparties. NDFs are forwards for which the underlying currencies are not physically delivered but instead are cash-settled by converting profits / losses to a freely traded currency, usually USD. They are commonly used for currencies restricted from offshore delivery and traded OTC. Futures are exchange-traded versions of an FX forward, in that they are contracts that specify the price in one currency at which another currency can be bought or sold at a future date. As these products are traded on exchange, the rates and settlement dates are usually standardised, in contrast to OTC forwards. Options are contracts that give the right but not the obligation to exchange money denominated in one currency into another currency at a pre-agreed exchange rate on a specified date. Options on forwards contracts are traded OTC, whereas options on futures contracts are traded on exchange.

141 Form CO, paragraph C.IV.13.

3.5.2. Provision of trading services for over-the-counter interest-rate derivatives

3.5.2.1. Relevant product market definition

A. Previous Commission decisions

(108) In past decisions, the Commission considered that the provision of trading services for derivative contracts can be distinguished based on underlying asset classes, execution environment, and types of contracts.[142]

(109) *First*, regarding the type of underlying variable or asset, the Commission considered that trading services for derivatives can be categorised into trading services for equity derivatives (single stock or index based), interest rate derivatives ("IRDs"), currency derivatives, commodity derivatives, credit derivatives, and foreign exchange ("FX") derivatives.[143] In the present case, the Commission's investigation focuses on the trading services for IRDs, which is the only type of derivatives where the Transaction raises (vertical) concerns or results in an affected market.

(110) *Second*, the Commission previously identified separate relevant product markets for the provision of trading services for derivatives on exchanges (i.e. exchange-traded or "ETD" derivatives) and the trading of derivatives over-the-counter (i.e. "OTC" derivatives) in view, in particular, of their different characteristics[144] and different applicable legal framework.[145] In the present case, the Commission's investigation focuses on the provision of trading services for OTC IRDs, which is the only execution environment where the Transaction significantly impede effective competition due to vertical effects (customer foreclosure), or results in an affected market.[146]

(111) *Third*, the Commission previously segmented the provision of trading services for derivatives according to the types of contracts and considered that trading services for swaps[147] are part of a distinct product market from trading services for options[148] and futures/forwards,[149] although it left open whether trading services for futures and for options comprise separate markets as well.[150]

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142 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 727.

143 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraphs 728-731.

144 Exchange-traded IRDs are standardised products, mainly futures and option, while the OTC trading of IRDs consist of contracts, mainly swaps and forward rate agreements, with bespoke terms.

145 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraphs 732-737. See also case COMP/M.6166 - DBAG / NYSE Euronext, paragraphs 255ff and 367.

146 The Transaction does not gives rise to a vertically affected relationship with regard to the trading and clearing of exchange-traded IRDs. Although LSEG is also active in trading services for exchange-traded IRDs, the Transaction does not raise concerns in this regard as the vertical relationship with LCH already existed before the Transaction and is therefore not merger-specific.

147 A swap is an agreement between two counterparties to exchange a sequence of cash flows over a period of time. These cash flows could for example be tied to the value of fixed or floating interest rates (IRS) or to the value of foreign currencies (FX swaps).

148 An option is a contract between two counterparties under which one counterparty (the option buyer) acquires the right (against the payment of a premium), but not the obligation, to buy from, or sell to, the other counterparty (the option seller) a specific amount of the underlying asset at a specific "strike price" on or before a specified date.

149 A future/forward is a contract between two counterparties under which one party, the seller, agrees to sell to the other counterparty (the buyer) a specified amount of the underlying asset (or its cash equivalent) at a specified future date at a price agreed at the time of the conclusion of the contract. The

(112) *Fourth*, the Commission considered in past decisions that, within the provision of trading services for exchange-traded IRDs, currency was a differentiating factor determining separate product markets.[151] The Commission did not previously assess this possible sub-segmentation in the context of OTC IRDs specifically.

(113) *Lastly*, in its prior decisional practice, the Commission has not considered whether the relevant product market for the provision of trading services for IRDs, be it exchange-traded or OTC IRDs, should be further segmented based on the trading channel (D2C and D2D).[152]

B. The Notifying Party's view

(114) At the outset, it should be noted that the Notifying Party provided its view on the product market definition of IRD trading exclusively in the Form CO.[153] It did not challenge, in its response to the decision pursuant to Article 6(1)(c),[154] the Commission's preliminary view that the provision of OTC IRD trading was a separate product market that could be further sub-segmented by execution environment, trading channel, and type of contract and/or currency traded.[155]

(115) In the Form CO, the Notifying Party indicates that it considers that the provision of trading services for OTC IRDs forms a separate product market, which can be segmented by trading channel.

(116) *First*, the Notifying Party indicates that it agrees with the Commission's previous distinctions based on underlying asset class[156] and execution environment.[157] It therefore considers that the trading of OTC IRDs constitute a separate product market.

(117) *Second*, the Notifying Party indicates that, as regards OTC IRD trading services, a further distinction exists between D2D and D2C venues,[158] in particular because venues compete with each other in each of these trading channels but not across them.[159] It adds that venues are specifically dedicated to either D2C or D2D and, even where some providers (e.g. Tradition's Trad-X, Tradeweb/Dealerweb) offer trading services in both trading channels, these require distinct and specific functionalities (e.g. D2C venues require pre-trade credit checks).[160] The Notifying

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difference between a future and forward is that futures are traded on organised exchanges whereas forwards are privately negotiated.

150 Commission decision of 1 February 2012 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 443 and Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 743.

151 Commission decision of 1 February 2012 in Case M.6166 - Deutsche Börse/NYSE Euronext, paragraph 406.

152 However, the Commission did consider such distinction for the trading or clearing of other financial instruments, namely the clearing of bonds (see Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 168) and the trading of repos (see Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 279).

153 Form CO, paragraphs C.V.91 to C.V.103.

154 Notifying Party's response to the the decision pursuant to Article 6(1)(c) regarding the trading and clearing of OTC IRDs of 9 July 2020.

155 Commission's 6(1)(c) decision regarding IRDs of 22 June 2020.

156 Form CO, paragraph C.V.91.

157 Form CO, paragraph C.V.92.

158 Form CO, paragraphs C.V.93-94.

159 Form CO, paragraph C.V.93.

160 Form CO, paragraph C.V.93.

Party also considers that venues belonging to each trading channel serve a different purpose and attract different customers, in particular because they operate different trading protocols. The D2D venues generally offer CLOB trading services, which provide a more anonymous method of trading, while D2C venues generally offer RFQ functionalities, which do not offer anonymity to the liquidity takers and makers.[161]

(118) In addition, the Notifying Party explains that, although a venue such as Dealerweb permits buy-side customers to trade on its (D2D) venue, a buy-side would prefer to trade through a D2C platform for the following reasons.[162] First, some buy-side customers may lack the necessary expertise to achieve their desired outcome on a D2D venue. In the Notifying Party's view, because D2D platforms typically offer more standardised products than D2C venues, a buy-side willing to trade a tailor-made OTC IRD trade may have to take positions in a package of more standardised OTC IRD contracts, which would require an analytic expertise that some buy-side customers may lack. Second, buy-side firms would typically want to trade on a fully disclosed basis with their chosen liquidity providers with which they have a long-term relationship (while D2D venues provides anonymity in this regard).

(119) *Third*, the Notifying Party disagrees with a segmentation of the OTC IRD trading market by type of contract and/or currency.[163] It submits that OTC IRD trading venues normally offer trading services for a broad range of products. In addition, customers of IRD trading services use the various types of OTC IRDs for the same purpose, i.e. as bespoke investment products and tailored hedging instruments, in order to transform rate exposure based on their views of the likely development of rates.

(120) *Fourth*, the Notifying Party indicates that a distinction by regulatory regime (e.g. US SEF, trading obligation under MiFIR[164] / no trading obligation under MiFIR) is not appropriate.[165] In the Notifying Party's view, the fact that a market segmentation based on whether customers have a regulatory obligation to trade certain IRDs on an SEF or MTF is not appropriate is evidenced by Tradeweb's pricing, which is the same for mandated and non-mandated IRDs, and the Notifying Party's view that an increase of mandated IRD trading prices would result in an increase of non-mandated IRD trading.[166] In addition, the Notifying Party considers that market participants themselves do not decide their trading or investment strategy based on whether a particular IRD is subject to the mandatory trading obligation or not (but rather based on their overall hedging and/or investment objectives).[167] The Notifying Party further considers that a segmentation of mandated IRDs based on the regulatory authorisation of the venue (e.g. an MTF in the EEA or a SEF in the US) is also not appropriate as mandated IRDs can be traded on a RM, MTF or OTF in Europe or on a SEF in the US, in light of the equivalence granted in this respect.[168] The Notifying Party further considers that the Commission does not need to reach a view on

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161 Form CO, paragraph C.V.93.
162 Form CO, paragraph C.V.94.
163 Form CO, paragraph C.V.95.
164 Regulation (EU) No 600/2014 of the European Parliament and the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) No 648/2012, OJ L 173, 12.06.2014 ("MiFIR"), page 84.
165 Form CO, paragraphs C.V.96-101.
166 Form CO, paragraph C.V.98.
167 Form CO, paragraph C.V.99.
168 Form CO, paragraph C.V.100.

segmentations by trading channel or regulatory regime as no concerns arise regardless of those segmentations.

(121) *Fifth*, regarding the possible segmentation by execution method, between trades executed on an electronic platform or bilaterally, the Notifying Party comments that an electronic only market would be "*putative*" but that "*there are no non-horizontal concerns even on a putative 'electronic only' segmentation*".[169]

(122) The Notifying Party considers that ultimately it is not necessary for the Commission to reach a definitive view on whether the OTC IRD trading market should be further segmented (i.e. by trading channel, type of derivative, or regulatory regime applicable to the trading venue), as no material competition concerns would arise on either basis.

C. The Commission's assessment

(123) On the basis of the market investigation results and the evidence available to it, and for the reasons explained in this Section, the Commission concludes that the provision of OTC IRD trading services constitute a separate product market, which is segmented by trading channel (i.e. that the provision of trading services for D2C OTC IRD trades constitutes a separate market from the provision of trading services for D2D OTC IRD trades), and is global in scope. However, the Commission concludes that the question of whether the market for the provision of OTC IRD trading services is segmented by (i) trading channel (i.e. D2C *versus* D2D), (ii) by the execution method (i.e. through an electronic venue *versus* bilaterally via voice outside of an electronic venue), and/or (iii) by the type of IRD contract and/or currency traded can be ultimately left open for the purposes of this Decision because the Transaction would significantly impeded effective competition due to vertical effects (customer foreclosure) regardless of whether or not the market for the provision of OTC IRD trading services is segmented by trading channel, execution method, and/or type of contract or currency traded.

(124) At the outset, the Commission notes that the results of the market investigation are in line with the Commission's precedents regarding the segmentation based on underlying asset class and execution environment according to which the trading of OTC IRDs would be a separate market.[170] The Commission therefore considers that the provision of trading services for OTC IRDs constitutes a separate product market (e.g. from the provision of trading services for other types of derivatives or from the provision of trading services for exchange-traded derivatives).

Distinction by trading channel

(125) Based on the evidence on file, and for the reasons explained below, the Commission considers that the market for the provision of trading services for OTC IRDs is segmented by trading channel, therefore distinguishing the provision of (i) D2C and of (ii) D2D OTC IRD trading services. The question of whether or not the market for the provision of trading services for OTC IRDs is segmented between the D2C and the D2D channel can however be ultimately left open as the Transaction would significantly impede effective competition due to vertical effects (customer

169 Form CO, paragraph C.V. 137.

170 The Commission notes that, regarding the execution environment, customers unanimously referred to the respective competitors in the same execution environment (OTC) as the closest competitors to Tradeweb. Question 22, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 20, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

foreclosure) regardless of whether or not the market for the provision of OTC IRD trading services is segmented by trading channel.

(126) *First*, in order to assess whether a segmentation of the OTC IRD trading market by trading channel is relevant, the Commission assessed the demand-side substitutability between the provision of D2C and D2D trading services. In line with the Commission Notice on the definition of the relevant market, this assessment "*entails a determination of the range of products which are viewed as substitutes by the consumer*".[171]

(127) At the outset, the Commission notes that by definition D2C and D2D trades are not in themselves substitutable for customers given that D2C trades take place between a dealer and its client, while D2D trades occur between two dealers, who do not have a provider/client relationship. As such, there is no demand-side substitutability between these two types of OTC IRD trades. However, the Commission assessed whether the provision of trading services for OTC IRDs in the D2C and D2D channels (e.g. between trading venues focusing on the execution of D2C trades and trading venues focusing on the execution of D2D trades) are substitutable from the perspective of customers. For the reasons explained below, the Commission's in-depth investigation indicates that, while there is a degree of demand-side substitutability between the D2C and D2D trading channels from the perspective of dealers (i.e. the sell-side), the demand-side substitutability between the D2C and D2 channels is limited from the perspective of customers (i.e. the buy-side).

(128) Firstly, in order to assess the demand-side substitutability from the perspective of clients (i.e., the buy-side), the Commission considered whether customers execute D2C trades on D2D venues. In this regard, only three buy-side customers who responded to the market investigation indicate to have access to some D2D trading venues (this amounts to 10% of the responding customers).[172] The vast majority of buy-side customers, namely 77% of them, indicate that as a price taker they do not have access to D2D trading venues.[173] This indicates that demand-side substitutability between the D2C and D2D trading channels is very limited from the perspective of the clients (i.e. the buy-side). This is an important element given that, for the D2C trading channel, it is usually the client (i.e. the buy-side) who decides where to trade. In this regard, Rabobank explains: "*Clients decide where to trade. Rabobank just follows what client preference*".[174] Similarly, BBVA adds: "*Our clients decide if they execute a trade electronically or by voice. We don't have the chance of choosing the channel for the D2C activity*".[175]

(129) Secondly, in order to assess the demand-side substitutability from the perspective of dealers (i.e., the sell-side), the Commission considered whether customers execute D2D trades on D2C venues. The results of the market investigation evidence that D2D trades can occur on D2C venues.[176] A majority of sell-side customers indeed indicate that they execute D2D trades on D2C venues: 41% of sell-side customers

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171 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 15, OJ C 372, 9.12.1997, p. 5–13.

172 Question 21, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

173 Question 21, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

174 Question 19.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474, response of Rabobank.

175 Question 19.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474, response of BBVA.

176 In addition, for completeness, the Commission notes that sell-side customers have by definition access to both D2D and D2C venues as dealers are active on both segments. However, this element is not probative to assess the substitutability of D2C and D2D OTC IRD trading.

explain that they do so *"frequently"* and 36% of them explains that they do so, but "*rarely"*.[177] Rabobank explains for instance that: "*We as Rabobank Markets onboard all types of clients in Bloomberg and Tradeweb. We make no split in between D2D or D2C*". [178]

(130) More specifically, feedback from the market investigation indicate that D2D trades are executed on D2C venues when a dealer is a small bank, to trade an OTC IRD trade subject to the trading obligation, or when dealers process a trade that was agreed by voice. For instance, Société Générale explains that it executes D2D trades on D2C venues for the following reason: "*Regulatory requirement (interbank trades which have to go through D2C venues because subject to the Trading Obligation)*".[179] In addition, Lloyds Banking Group Plc indicates that "*Market making desks are prohibited from acting as a client on D2C venues in Europe so are prohibited from launching RFQ's to another market maker. D2C venues are, however, frequently used for confirming voice trades done in the interbank market as "process" trades*".[180] J.P. Morgan also explains that "[s]*ome smaller dealers are often considered clients*".[181] These elements tend to show that there is a certain degree of demand-side substitutability between the D2C and D2D trading channels from the perspective of dealers (i.e. the sell-side) for certain trades, in particular trades subject to the trading obligation and trades with small dealers than they consider as clients).

(131) Thirdly, and subsidiarily, the Commission assessed which market players are considered by customers as closely competing with the Tradeweb and Dealerweb. Customers who responded to the market investigation generally mention D2C trading venues as being close competitors to Tradeweb (a D2C venue) and D2D trading venues as being close competitors to Dealerweb (a D2D venue).[182] While taken in isolation this element indicates that venues in each trading channel primarily compete against each other, it is insufficient alone to prove that the D2C and D2D trading channels are not substitutable, and thus do not belong to the same relevant product market.

(132) *Second*, in order to assess whether a segmentation of the OTC IRD trading market by trading channel is relevant, the Commission assessed the supply-side substitutability between the provision of D2C and D2D trading services. In line with the Commission Notice on the definition of the relevant market, supply-side substitutability assessment "*may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term (4) without*

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177 Question 31, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

178 Question 31.1, Questionnaire 3 to OTC IRD sell-side customers, response of Rabobank, Doc ID 6474.

179 Question 31.1, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

180 Question 31.1, Questionnaire 3 to OTC IRD sell-side customers, response of Lloyds Banking Group Plc, Doc ID 6474.

181 Question 31.1, Questionnaire 3 to OTC IRD sell-side customers, response of J.P. Morgan, Doc ID 6474.

182 Question 22, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470. See also question 21, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

incurring significant additional costs or risks in response to small and permanent changes in relative prices".[183]

(133) Firstly, the Commission assessed whether venues active in OTC IRD trading focus on one of the two trading channels. The results of the market investigation indicate that it is the case: suppliers of OTC IRD trading services generally focus on one trading channel, either the D2C or the D2D. For instance, Tradeweb and Bloomberg focus on the D2C trading channel while BGC, TPICAP, and Dealerweb focus on the D2D trading channel.

(134) Secondly, the Commission assessed whether trading venues focusing on D2D (so-called "D2D venues") provide trading services for D2C trades. The Commission notes that it is the case for Tradition's Trad-X[184] and Tradeweb's Dealerweb,[185] which offer their services for both D2C and D2D trades. With regard to Tradition, Trad-X's offering for D2C trades is a recent market development. While Trad-X has been active in D2D OTC derivatives since 2011, as part of Tradition,[186] it has introduced in January 2020 a D2C functionality (CLOB) for D2C trades of OTC IRDs.[187] The fact that two so-called "D2D" venues offer D2C trading services shows that there is a degree of supply-side substitutability between the D2C and D2D trading channels, although it is important to note that these two trading venues represent only a small share of the D2D segment (less than [0-5]% based on number of trades (thousands) and less than [0-5]% based on notional value traded according to Table 11). The recent expansion of Trad-X to D2C trades is also an element taken into account by the Commission. However, this element is not sufficiently probative, in particular as it does not provide an indication of the cost (in time and money) that a so-called D2D trading venue would incur in order to start providing D2C OTC IRD services and to obtain a sufficient liquidity.

(135) Thirdly, the Commission assessed whether trading venues focusing on D2C trades (so-called "D2C venues") provide trading services to D2D trades. As explained in recital (129) above, some inter-dealers trades are executed on D2C venues, which indicates that so-called D2C trading venues offer trading services for D2D trades. The market investigation indeed indicates that a large majority of sell-side customers execute D2D trades on D2C venues,[188] e.g. when a dealer is a small bank, to trade OTC IRD trades subject to the trading obligation, or when dealers process a trade that was agreed by voice.

(136) Fourthly, the Commission assessed how, in its internal documents, Tradeweb views its competitors, and whether these competitors include only so-called "D2C venues", or also so-called "D2D venues".

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183 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 20, OJ C 372, 9.12.1997, p. 5–13.

184 According to its website (https://www.tradition.com, last accessed on 17 September 2020), Tradition is the interdealer broking arm of Compagnie Financière Tradition (a company listed on the Swiss stock exchange) and a global interdealer broker in over-the-counter financial and commodity related products, which is represented in over 29 countries.
Trad-X is an MTF operated by Tradition (UK) Limited, authorised and regulated by the UK Financial Services Authority.

185 Form CO, paragraph C.V.93. See also: https://www finextra.com/pressarticle/81152/trad-x-ships-dealer-to-client-electronic-trading-platform (last accessed on 23 September 2020).

186 Form CO, paragraph C.V.93. and Footnote 51

187 Question 21, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

188 Question 31, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

(137) On the one hand, Tradeweb's internal documents evidence that Bloomberg and TruEX, platforms focused on D2C trades, are viewed by Tradeweb as [Tradeweb's internal competitive analysis] (as evidenced by Figure 1 below).[189] While this element is insufficient to prove that the D2C and D2D trading channels are not substitutable, it indicates that venues in the D2C trading channel primarily compete against each other.

Figure 1

[internal document]

(138) One the other hand, Tradeweb's internal documents evidence that Tradeweb [information regarding Tradeweb's monitoring strategy] (as evidenced by Figure 2 below). This element indicates that Tradeweb faces a degree of competitive constraint from D2D venues.

Figure 2

[internal document]

(139) *Third*, and subsidiarily, the Commission assessed whether market participants consider that a convergence between the D2C and the D2D segments is occurring within OTC IRD trading, in which case this would indicate an increasing substitutability between the two trading channels. In this regard, the Commission notes that, contrary to the Commission's observations made regarding the EGB trading markets, the market investigation does not highlight any specific convergence trend between the D2C and D2D segments in OTC IRD trading, in Europe or elsewhere in the world, which suggests that the substitutability between the two trading channels is not expected to increase in the near future (and at least in the next three years).

(140) Based on the above and the evidence available to it, the Commission considers that that the market for the provision of trading services for OTC IRDs is segmented by trading channel, therefore distinguishing the provision of (i) D2C and of (ii) D2D OTC IRD trading services.

(141) In any event, the question of whether the provision of trading services for OTC IRDs should be segmented by trading channel (i.e. between the D2C and D2D channels) can be ultimately left open because the Transaction would significantly impede effective competition, due to vertical effects (customer foreclosure), regardless of whether or not the provision of trading services for D2C and for D2D trades form part of the same relevant market (as explained further in Section 4.5.36.1.B). This in particular because (i) the Commission's concerns with regard to the trading and clearing of OTC IRDs result from the combined entity's dominant position in the clearing of OTC IRDs and (ii) the combined entity could successfully leverage its dominance downstream to foreclose upstream rivals, in either the D2C and/or the D2C+D2D segment(s).

Distinction by execution method

(142) Based on the evidence on file, and for the reasons explained below, the Commission considers that the market for the provision of trading services for OTC IRDs can be segmented according to the execution method of trades, i.e. between (i) on the one hand, off-venue trades, also often called "voice trades", which refers to bilateral trades executed outside of a (electronic) trading venue, and (ii) on the other hand, on-

189 See, e.g. Doc ID 4791-29438

venue trades, also often called "electronic trades", which refer to trades that are executed on an electronic trading venue, and which may have been previously negotiated bilaterally. The question of whether or not the provision of on-venue and of off-venue OTC IRD trading services form part of the same relevant product market can however be ultimately left open as the Transaction would significantly impede effective competition, due to vertical effects (customer foreclosure), regardless of whether or not the market for the provision of OTC IRD trading services should be segmented by execution method.

(143) *First*, at the outset the Commission notes that the main difference between on-venue and off-venue trading is that on-venue trading involves the provision of a service, by a trading venue, which involves a fee payable by the customers. Indeed, as recalled by Bloomberg, "*trades on trading venues typically incur an execution fee payable to the venue by its participants / members. By contrast, off-venue voice trades do not typically involve an execution fee payable to the relevant technology provider*".[190]

(144) *Second*, in order to assess whether a segmentation of the OTC IRD trading market by execution method is relevant, the Commission assessed the demand-side substitutability between the provision of D2C and D2D trading services. In line with the Commission Notice on the definition of the relevant market, this assessment "*entails a determination of the range of products which are viewed as substitutes by the consumer*".[191]

(145) Firstly, the Commission assessed whether customers generally have a preference between on-venue and off-venue trading for OTC IRD trades. On this point, the market investigation indicates that the majority of customers (i.e. 67% of the responding customers) prefer to trade electronically, i.e. on venue, as much as possible,[192] including for trades that are not subject to the trading obligation.[193] The Commission notes that the importance of voice trading varies across customers. Indeed, half of the responding customers indicate that their voice trading of OTC IRD is limited (between 10 and 20% of the notional they traded in 2019), while the other half reports trading between 40 and 100% of their OTC IRD contracts by voice.[194]

(146) In this regard, the Commission notes that the results of the market investigation indicate that, with regard to D2C trading, the choice of trading electronically or via voice is made by the customer (not the dealer bank). As summarised by BBVA, *"It is a customer decision whether to operate by voice or electronically (when available)*."[195]

(147) Secondly, the Commission assessed whether customers execute trades on venues or bilaterally for the same types of trades. In this regard, the market investigation highlights that on-venue and off-venue trading of OTC IRD have different characteristics, which transpose into different customer choices.

(148) As a first element, the Commission assessed which factors drive the customers' preference for electronic trading. The market investigation shows that the overall

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190 Question 6, Questionnaire to Bloomberg regarding OTC IRD trading and clearing, Doc ID 5692.

191 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 15, OJ C 372, 9.12.1997, p. 5–13.

192 Question 6.1, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

193 Question 6.2, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

194 Question 7, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

195 Question 16.2, Questionnaire 3 to OTC IRD sell-side customers, response of BBVA, Doc ID 6474.

preference of customers to trade electronically as much as possible is driven by several factors, notably (i) because trading venues take care of the reporting/transparency obligations, leading to efficiencies/cost savings (according to c. 73% of customers), (ii) because on-venue trading results in more competitive quotes and is therefore less expensive than off-venue trading for most of the trades (according to c. 70% of customers), (iii) because the speed of execution is higher when trading on venue, leading to efficiencies/cost savings (according to c. 67% of customers).[196]

(149) As a second element, the Commission assessed whether the substitutability between on-venue and off-venue trading of OTC IRDs is limited by the fact that some types of trades can only be executed by customers on-venue. The market feedback confirms that certain types of OTC IRD trades have to be executed on trading venues because they are subject to the MIFIR trading obligation. From a legal standpoint, Article 28 of MiFIR provides that OTC derivatives that have been declared subject to the trading obligation must be traded on an EU trading venue, that is, a RM, MTF, or OTF, or a trading venue established in a third-country in respect of which the European Commission has adopted an equivalence decision.

(150) As summarised by Société Générale: *"Due to regulatory requirements a significant portion of trades MUST be executed on trading venues. Therefore, trading venues are in a very strong position to impose their fee schedule. We have no choice as we are forced to use them and there are only two of them."*[197] Similarly, as Bloomberg explains, "*Regulation has subsequently reinforced an already established trend. For example, various aspects of MiFID II, including, in particular, reporting obligations, have further increased demand for use of Trading Venues. The shift towards the use of automated trading tools by the buy-side has further accelerated to shift towards on-venue electronic trading*".[198]

(151) In its assessment, the Commission took account of the share of OTC IRD trades subject to the trading obligation (i.e. of the trades that cannot be executed off-venue, but rather have to be traded on a recognised trading venue) to estimate the share of on-venue trades that cannot be substituted with off-venue trades. According to the Notifying Party, the share of OTC IRD transactions executed on Tradeweb Institutional in 2019 that were subject to the MiFIR trading obligation was [20-30]% in terms of the number of transactions (and [10-20]% in terms of the value of the transactions).[199] While this figure is not representative of the share of the OTC IRD trades subject to the MiFIR trading obligation, which would be by definition lower as the denominator would include off-venue trades, this element shows that a non-negligible share of the OTC IRD market (namely the trades subject to the trading obligation) is not substitutable between on-venue and off-venue trading.

(152) As a third element, the Commission assessed whether the substitutability between on-venue and off-venue trading of OTC IRDs is limited by the fact that some types of trades can only be executed by customers off-venue. The market feedback confirms that certain types of trades can today only be executed bilaterally off-venue. These bilateral trades are for OTC IRD contracts that are not available on electronic

196 Question 6.1, Questionnaire 21 to OTC IRD customers, Doc ID 6472.
197 Question 23.1, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.
198 Question 6, Questionnaire to Bloomberg regarding OTC IRD trading and clearing, Doc ID 5692.
199 Form CO, paragraph C.V.25.

trading venues, or the OTC IRD contracts that are not sufficiently liquid on these venues.

(153) A customer explains that, regarding D2D trades, "*only a handful of products are liquid on elec platforms and large clips (above 100k DV01)*[200] *can only be executed in the voice market"*,[201] and another customer adds "*voice trading remains preferable for less liquid currencies and tenors and products*".[202] Similarly, Bloomberg explains that "[T]*here is a category of risk sensitive trades for which sell-side and buy-side participants will prefer to use off-venue voice trading, rather than a trading venue. Disclosure of information regarding such risk sensitive trades may impact a trader's exposure and market position and for this reason, the dealer will prefer to engage with counterparties directly. Simplistically, the risk sensitivity of a potential transaction is correlated to the liquidity of the instrument and the size of the intended trade. A dealer's perception of this risk is subjective. The "break points" as to when a trade's viability/desirability for trading venue execution expires for such trades are not fixed – these vary over time and by individual sensitivity to risk. Thus, there is a category of trades for which trading venues will likely not be considered alternative to off-venue voice.*"[203] Overall, the following response of AXA Investment Managers provides a summary of the feedback received during the market investigation: "*We would try and trade electronically as much as possible. However, on some types of OTC IRDs, in particular in less liquid currencies, or on bilateral OTC IRDs, dealers may not always be able to quote electronically. We would also trade via voice for highly sensitive trades*".[204] In addition, feedback from clearing competitors confirms that voice trades are generally larger, and consequently more sensitive. For instance, the Singapore-based CCP SGX explains "*OTC voice trades that are sent for clearing are typically larger in size (block trades) while the trades from electronic platforms are smaller"*.[205]

(154) These elements show that a share of the OTC IRD trading market (namely the trades for contracts not available on-venue and the illiquid trades) is not substitutable between on-venue and off-venue trading.

(155) Thirdly, the Commission assessed whether the OTC IRD trading market was subject to an electronification trend, according to which voice trading was switching towards trading more electronically.

(156) In the first place, the results of the market investigation indicate that customers have been increasingly moving towards trading OTC IRDs on-venue and that the OTC IRD trading market is still shifting towards more on-venue trading. This indicates that a share of the current off-venue trading segment could potentially be executed on trading venue in the near future.

(157) By way of example, Bloomberg explains: "*there has been a trend towards increased use of trading venues (for purposes of executing trades) as an alternative to off-*

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200 DV01 is a commonly used term for a measure of risk and stands for the Dollar Value of a one unit change in the underlying.

201 Question 16.2, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

202 Question 16.2, Questionnaire 3 to OTC IRD sell-side customers, response of ING, Doc ID 6474.

203 Question 6, Questionnaire to Bloomberg regarding OTC IRD trading and clearing, Doc ID 5692.

204 Question 17.2, Questionnaire 1 to OTC IRD buy-side customers, response of AXA Investment Managers, Doc ID 6470.

205 Question 3, Questionnaire to SGX, Doc ID 5626.

venue voice trades".[206] According to Bloomberg, "*This shift has been driven initially by the benefits that trading electronically generates for users, which include: a) typically greater visibility of and access to liquidity (including through automated discovery); b) it can facilitate automated trading, allowing for lower labour costs; c) it may ease counterparties' regulatory compliance obligations as compared to voice; and d) it can facilitate efficiencies, e.g. via audit trail capture*".[207] The shifting trend from off-venue to one-venue trading is also reflected in the responses from customers. By way of example, the Lloyds Banking Group Plc indicates that "*A large proportion of our D2C voice business has moved to electronic trading, predominantly Tradeweb and to a less[e]r degree Bloomberg*".[208] UBS adds "*We have seen an increase in voice to electronic trading due to regulatory changes*",[209] and another customer adds: *"We observe that larger transactions tend toward Voice, whereas Electronic is becoming more and more the default."*[210]

(158) The market trend whereby voice trading for OTC IRD contracts is shifting towards on-venue trading is also described in industry reports. For instance, the BIS Quarterly Review of December 2019 reports that, among the factors which drove the recent growth of OTC derivatives markets, "*one stood out: the rise in electronic and automated trading, also referred to as electronification*".[211] The report further adds that "O*TC interest rate derivatives markets, too, are shifting from voice brokers to electronic platforms*".[212] The fact that the OTC IRD trading market is currently shifting to on-venue trading shows that there is today, and until the electronification trend comes to an end, a certain degree of substitutability between on-venue and off-venue trading.

(159) Tradeweb's internal documents also confirm the trends towards electronification in OTC IRD trading. By way of example, in an internal presentation on European swaps dated March 2018, Tradeweb explains: "[discussion of market trends]".[213]

(160) In the second place, the Commission assessed the significance of the share of the voice trades that are subject to the electronification. In this regard, 70% of customers indicate that they would move some of their voice trades (cleared today with LCH SwapClear through MarkitWire) towards electronic trading venues in case LCH SwapClear was no longer connected to MarkitWire for voice trades.[214] More specifically, 40% of customers would switch to electronic trading "a *significant share of these voice trades*", and another 30% of customers would switch to electronic trading "*a limited share of these voice trades*".[215] While customers

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206 Question 5, Questionnaire to Bloomberg, Doc ID 5692.

207 Question 5, Questionnaire to Bloomberg, Doc ID 5692.

208 Question 13.1, Questionnaire 3 to OTC IRD sell-side customers, response of LLOYDS BANKING GROUP PLC, Doc ID 6474.

209 Question 13.1, Questionnaire 3 to OTC IRD sell-side customers, response of UBS, Doc ID 6474.

210 Question 16.2, Questionnaire 3 to OTC IRD sell-side customers, response of HSBC Bank plc, Doc ID 6474.

211 BIS (Bank for International Settlements) Quarterly Review by Philip Wooldridge, dated 8 December 2019, "FX and OTC derivatives markets through the lens of the Triennial Survey" (see https://www.bis.org/publ/qtrpdf/r_qt1912e htm, last accessed on 14 September 2020). See also (Bank for International Settlements) BIS Quarterly Review by Torsten Ehlers and Bryan Hardy dated 8 December 2019, "The evolution of OTC interest rate derivatives markets" (see https://www.bis.org/publ/qtrpdf/r_qt1912i.pdf, last accessed on 14 September 2020).

212 Ibidem.

213 See Doc ID 4791-29438.

214 Question 2.1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

215 Question 2.1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

answered to this question with regard to the trades cleared by LCH SwapClear through MarkitWire, this information provides a good proxy of the market trend given that the trades cleared by LCH SwapClear through MarkitWire account for approximately [a high percentage] of all OTC IRD trades, according to the data provided by the Notifying Party. [216]

(161) Fourthly, the Commission assessed whether customers of OTC IRD on-venue trading would switch towards voice trading in case of a hypothetical small (in the range 5 % to 10 %) but permanent relative price increase. Asked what portion of electronic trading they would switch to voice in the event of a permanent increase of 5-10% in the total costs of trading electronically, 16% of sell-side customers indicate that they would switch "*a sizeable portion*" and 11% of sell-side customers indicate that they would switch a small portion (47% of sell-side customers answer "*I don't know*").[217] Based on this market feedback, a share of OTC IRD voice trading seems to be substitutable with voice trading. However, the Commission recognises that this feedback from sell-side customers applies primarily to the D2D channel since the choice of the execution method generally belongs to the buy-side for D2C trades (as explained in recital (146) above).

(162) *Third*, in order to assess whether a segmentation of the OTC IRD trading market by execution method is relevant, the Commission assessed the supply-side substitutability between the provision of D2C and D2D trading services. In line with the Commission Notice on the definition of the relevant market, supply-side substitutability assessment "*may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term (4) without incurring significant additional costs or risks in response to small and permanent changes in relative prices*".[218]

(163) Firstly, the Commission assessed whether, from the perspective of the dealers that execute or provide voice trades, on-venue and off-venue trading was substitutable. Feedback collected during the market investigation indicates that, from the dealers' perspective, their voice offering does not necessarily compete with trading venues. Indeed, the majority of dealers (i) do not consider that their voice offering compete with electronic trading venues (namely 61% of them),[219] and (ii) think that their voice offering does not constrain D2C electronic trading venue fees (namely, 57% of dealers).[220]

(164) Secondly, the Commission assessed whether Tradeweb's rivals operating OTC IRD trading venues consider that voice and electronic trading compete. Asked whether it considers that the cost of voice trading influences its electronic trading fees, a rival trading venue who requested anonymity explains: "*Cost is one input into the*

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216 The OTC IRD trades cleared with LCH SwapClear through Markitwire represent a high share of the market as, according to the Notifying Party, (i) 78% of all OTC IRD trades were cleared in 2018 (Form CO, paragraph C.V.391), (ii) LCH SwapClear's market share for OTC IRD clearing amounts to c. [90-100]% (see Table 43 below) and (iii) [90-100]% of the OTC IRD trades cleared by LCH SwapClear are executed through the intermediary of MarkitWire (Notifying Party's response to the 6(1)(c) decision, paragraph 128).

217 Question 19, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

218 Commission Notice on the definition of the relevant market, paragraph 20.

219 Question 24, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

220 Question 23, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474. Only 11% respond "Yes", 26% "it depends".

considerations of our clients to trade via voice or electronically, but as noted in response to 6 above the nature of the product (bespoke vs commoditized) also plays a role, along with factors such as market convention. Therefore the pricing of voice trading is a constraint on electronic trading fees but it is not the only factor determining customer choice between voice and electronic". [221]

(165) Thirdly, the Commission assessed how, in its internal documents, Tradeweb views its competitors, and whether these competitors include the off-venue offering. Tradeweb's internal documents evidence that Tradeweb views [Tradeweb's internal competitive analysis] as part of its competitors for derivatives' trading (as evidenced by Figure 1 above).[222]

(166) Based on the above and the evidence available to it, the Commission considers that the market for the provision of trading services for OTC IRDs can be segmented according to the execution method of trades, i.e. between (i) on-venue trades and (ii) off-venue trades.

(167) In any event, the question of whether the provision of trading services for OTC IRDs should be segmented by execution method (i.e. between the on-venue trading and off-venue trading) can be ultimately left open as the Transaction would significantly impede effective competition, due to vertical effects (customer foreclosure), regardless of whether the on-venue and off-venue provision of OTC IRD trading services form part of two separate product markets or whether the on-venue and off-venue provision of OTC IRD trading services are both part of a wider OTC IRD trading market, which comprises both on-venue and off-venue trading.

Distinction by type of OTC IRD contract and/or underlying currency

(168) Based on the evidence on file, and for the reasons explained below, the Commission considers that the market for the provision of trading services for OTC IRDs can be segmented by type of OTC IRD contract and/or underlying currency. The question of whether the market for the provision of OTC IRD trading services should be segmented by type of OTC IRD (e.g. between IRS, OIS, and FRA) or underlying currency (e.g. between EUR and USD) can however be ultimately left open as the Transaction would significantly impede effective competition regardless of whether or not the market for the provision of OTC IRD trading services should be segmented by type of OTC IRD contract and/or underlying currency.

(169) *First*, in order to assess whether a segmentation of the OTC IRD trading market by type of contract or underlying currency is relevant, the Commission assessed the demand-side substitutability between the provision trading services for different type of OTC IRD contracts and/or currencies subject to these contracts.

(170) At the outset, the Commission notes that many respondents indicated that they trade several types of contracts.[223] The most traded OTC IRD contract appears to be interest rate swaps ("IRS"), distantly followed by Overnight Index Swap ("OIS").[224] In fact, most customers who responded to the market investigation trade IRS, and

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221 Question 7, Questionnaire to a rival trading venue regarding OTC IRD trading and clearing, Doc ID 6694.

222 See, e.g. Doc ID 4791-29438

223 Question 6, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

224 Question 6, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

OIS to a lesser extent.[225] While some market participants trade many different types of contracts, in particular dealers and banks,[226] some customers trade a much lower range of OTC IRDs. For example, Nippon Wealth Life Insurance Company and Crédit Suisse only trade IRS for D2C trades.[227] The majority of customers, namely 77% of buy-side customers and 74% of sell-side customers, expect the share of different OTC IRD products in their trading to remain stable in the next 2 to 3 years.[228] The Commission notes that some customers, namely Citadel, Nippon Wealth Life Insurance Company; and Pension Insurance Corporation Plc, expect OIS trades to grow due to the IBOR interest rate benchmark transitions.[229]

(171) In addition, some market feedback suggests that certain types of OTC IRD contracts are more prevalent in the D2D space (forward rate agreements), while other types of contracts are more prevalent in the D2C space (interest-rate swaps and overnight-index swaps).[230] For instance, as evidenced by Figure 4 below, Tradeweb's (excluding Dealerweb) and Bloomberg's venues do not provide trading opportunities for forward rate agreements. The fact that all customers do not trade all types of OTC IRDs (e.g. FRAs) indicates that the demand-side substitutability is limited with regard to certain type of contracts, in particular FRAs.

(172) *Second*, in order to assess whether a segmentation of the OTC IRD trading market by type of contract or underlying currency is relevant, the Commission assessed the supply-side substitutability between the provision of trading services for different types of OTC IRD contracts and/or currencies.

(173) Firstly, with regard to the current structure of supply, the Commission notes that the contracts and currencies that are most traded are available for trading in the main trading venues, as evidenced by the market share tables provided in Section 4.3.2 below. This is specifically the case of IRS and OIS, regarding the type of contracts, and USD and EUR, regarding the type of currencies. On the other hand, all types of OTC IRD contracts are not offered for trading in the different trading venues. For instance, Tradeweb and Bloomberg do not offer trading services for forward rate agreements ("FRA"), as already mentioned above in Recital (171), and evidenced as well by the market share tables provided in Section 4.3.2 below.

(174) Secondly, with regard to the possibility for trading venues to offer trading services for a wider range of OTC IRD contracts and/or currencies, the Commission notes that, while the cost (in terms of time and money) that venues would need to incur to do so would not necessarily be significant, the success of such expansion is linked to the liquidity that the venue manages to bring on its platform. As explained in more details in Section 4.5.36.1.B.1.1.4. below, the OTC IRD trading market is characterised by strong network effects and the success of a trading venue hinges on its ability to successfully capture liquidity, and therefore offer attractive bid-ask spreads for customers (including for specific types of OTC IRD contracts and/or

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225 Question 6, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

226 Question 6, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

227 Question 6, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

228 Question 6.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

229 Question 6.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 6, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

230 Minutes of a pre-notification call with Eurex on 12 March 2020, paragraphs 20 and 21, Doc ID 3566.

currencies). As such, because of these network effects, trading venues are unlikely to be able to provide trading services for a new currency "*in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices"*, which indicates that supply-side substitutability is limited [231]

(175) As a subsidiary element, the Commission notes that the main public source of information on derivatives markets (ClarusFT) reports market shares of OTC IRD venues comparing different types of contracts and currencies.[232] This suggests that a distinction by type of OTC IRD contract and currency is relevant for market players.

(176) Based on the above and the evidence available to it, the Commission considers that the market for the provision of trading services for OTC IRDs can be segmented by type of OTC IRD contract and/or underlying currency.

(177) The Commission therefore considers that the market for the provision of trading services for OTC IRDs can be segmented according to the type of contract traded (e.g. between IRS, OIS, and FRA) or the underlying currency (e.g. EUR versus USD). The question of whether the market for the provision of OTC IRD trading services should be segmented by type of OTC IRD contract (e.g. between IRS, OIS, and FRA) or underlying currency (e.g. between EUR and USD) can however be ultimately left open as the Transaction would significantly impede effective competition, due to vertical effects (customer foreclosure), regardless of whether or not the market for the provision of OTC IRD trading services should be segmented by type of OTC IRD contract and/or underlying currency.

Distinction by regulatory regime

(178) Based on the evidence on file, and for the reasons explained below, the Commission considers that the market for the provision of trading services for OTC IRDs is not segmented by regulatory regimes.

(179) *First*, in order to assess whether a segmentation of the OTC IRD trading market by regulatory regime is relevant, the Commission assessed the demand-side substitutability between the provision of trading services by trading venues subject to different regulatory regime.

(180) To that end, the Commission assessed whether customers can trade OTC IRDs based on the regulatory regime trading venues are subject to, including non-EU regulatory regime. In this respect, a distinction can be drawn between (i) trades subject to the trading obligation and (ii) trades that are not subject to the trading obligation.

(181) Firstly, regarding trades not subject to the trading obligation, the Commission notes that that from a legal standpoint these trades can be executed in any trading venue in the world, regardless of their regulatory regime. In addition, the Commission investigated where customers execute these trades. The results of the market investigation indicate that the majority of customers (62%) execute OTC IRD trades not subject to the trading obligation on venues across the world, while 19% of them execute these trades mostly in the EEA (including equivalent third country venues, i.e. the US and Singapore), and another 19% execute these trades only in EEA-based venues (including equivalent third country venues).[233] As such, only a minority of

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231 Commission Notice on the definition of the relevant market, paragraph 20.

232 See https://www.clarusft.com/2019-sef-market-share-statistics/ (last accessed on 17 September 2020).

233 Question 8.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 8.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

customers execute these trades only in the EEA (plus the US and Singapore), which provides a good indication that the market for OTC IRD trading is likely global. While the proportion of sell-side customers who only trade on EEA-based venues (and equivalent third country venues) is very limited (5% based on the result of the market investigation), this proportion is slightly larger for buy-side customers (30% based on the results of the market investigation).[234] This indicates that the worldwide nature of the OTC IRD trading market is stronger for the D2C segment.

(182) Secondly, trades subject to the trading obligation can be executed on venues from the EU, US, and Singapore. From a legal standpoint, Article 28 of MiFIR provides that OTC derivatives that have been declared subject to the trading obligation must be traded on an EU trading venue, that is, a RM, MTF, or OTF, or a trading venue established in a third-country in respect of which the European Commission has adopted an equivalence decision.[235] Currently, the European Commission adopted an equivalence decision in favour of the US (in relation to the DCMs and SEFs listed in the annex to the relevant decision) and Singapore (approved exchanges and recognised market operators listed in the annex to the relevant decision).[236] Hence, because of equivalences granted by EU authorities, EU-based customers can trade IRDs on a US SEF or DCM, or a Singapore exchange, and still comply with EU regulatory obligations. This means that there is substitutability for the trading services executed by EU, US, and Singapore venues.

(183) *Second*, in order to assess whether a segmentation of the OTC IRD trading market by regulatory regime is relevant, the Commission assessed the supply-side substitutability between the provision of trading services by trading venues subject to different regulatory regimes. In the regard, the Commission notes that trading venues such as Tradeweb and its main competitors' (Bloomberg, Tradition, BGC, and TPICAP) own venues are subject to different regulatory regimes. For instance, Tradeweb owns venues subject to the EU and US regulatory regimes. They are allowed to offer trading services to customers in the EU, in the US, and in other countries recognising their venues.

(184) In this context, the Commission concludes that the trading and clearing of OTC IRDs is not further sub-segmented by regulatory regime.

Conclusion

(185) Having regard to the market investigation results and the evidence available to it, the Commission concludes that the provision of OTC IRD trading services constitute a separate product market, which is segmented by trading channel (meaning that the provision of trading services for D2C OTC IRD trades constitutes a separate market from the provision of trading services for D2D OTC IRD trades). In addition, the Commission concludes that the question of whether the market for the provision of OTC IRD trading services should be segmented by (i) execution method (i.e. through an electronic venue *versus* bilaterally via voice outside of an electronic venue), and/or (ii) type of IRD contract and/or currency traded can be ultimately left open for

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234 Question 8.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 8.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

235 Article 28(1)(d) of MiFIR. See also Form CO, paragraph C.V.117.

236 See ESMA's "Public Register for the Trading Obligation for derivatives under MiFIR", which lists on page 6 the third-countries deemed equivalent for the purpose of the trading obligation (https://www.esma.europa.eu/sites/default/files/library/public_register_for_the_trading_obligation.pdf, last accessed on 14 September 2020).

the purposes of this Decision because the Transaction would result in a significant impediment to effective competition due to vertical effects of customer foreclosure regardless of whether or not the market for the provision of OTC IRD trading services should be further segmented by trading channel, execution method, and/or type of contract or currency traded.

3.5.2.2. Relevant geographic market definition

A. Previous Commission decisions

(186) The Commission has so far not assessed the geographic scope of OTC IRD trading markets, but previously considered that ETD derivate trading markets are likely at least EEA-wide in scope.[237]

B. The Notifying Party's view

(187) The Notifying Party submits that OTC IRD trading markets are at least EEA-wide but more likely global.[238] The Notifying Party observes that OTC derivatives are traded on a global basis with the client's domicile typically determining where they trade. Furthermore, due to an equivalence decision of the Commission with respect to venues located in the US and Singapore, European investors which are subject to the trading obligation can satisfy this obligation by trading on US and Singaporean venues.

C. The Commission's assessment

(188) On the basis of the market investigation results and the evidence available to it, and for the reasons detailed below, the Commission considers that the geographic scope of the market for the provision of OTC IRD trading services, and its possible sub-segments (by trading channel, execution method, and/or type of contract or underlying currency) is likely global in scope. However, the Commission considers that the question of whether the relevant geographic scope for the market for the provision of trading services for OTC IRDs, and its possible sub-segments by trading channel, execution method, and/or type of contract or underlying currency, is the EEA or global can be ultimately left open given that the Transaction would significantly impede effective competition, due to vertical effects (customer foreclosure), regardless of whether the geographic market definition is EEA-wide or worldwide.

(189) As described in the Commission Notice on the definition of the relevant market, "*the relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those area*".[239]

(190) *First*, in order to assess the geographic scope of the OTC IRD trading market, the Commission assessed the demand-side substitutability between the provision of OTC IRD trading services in the EEA and beyond the EEA. For the reasons explained below, the results of the market investigation indicate that, from the perspective of

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237 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 761. See also International Exchange/NYSE Euronext, para. 75

238 Form CO, paragraph CV.118.

239 Commission Notice on the definition of the relevant market, paragraph 8.

the demand, the geographic scope of the market for the provision of OTC IRD trading services (and its possible sub-segments) is largely global.

(191) Firstly, the Commission assessed where the desks of customers trading OTC IRDs were located. The results of the market investigation indicate that a majority of customers (approximately 63%) have trading desks located across the world.[240] Regarding buy-side customers, approximately 56% of them have trading desks located across the world, while 42% of them have trading desks located in the EEA and 3% of them have trading desks located mostly in the EEA (and therefore beyond the EEA in a lesser proportion).[241] Regarding sell-side customers, approximately 75% of them have trading desks located across the world, while 10% of them have trading desks located in the EEA and 15% of them have trading desks located mostly in the EEA (and therefore beyond the EEA in a lesser proportion).[242] These elements are indicative of the cross-border, and largely global, nature of OTC IRD trading for customers.

(192) Secondly, the Commission assessed where European customers tend to execute their OTC IRD trades.

(193) Regarding trades not subject to the trading obligation, the Commission notes that that from a legal standpoint, these trades can be executed in any trading venue in the world. In addition, the Commission investigated where customers execute these trades. The results of the market investigation indicate that the majority of customers (62%) execute OTC IRD trades not subject to the trading obligation on venues across the world, while 19% of them execute these trades mostly on trading venues based or recognised in the EEA (thus including equivalent third country venues, i.e. the US and Singapore), and another 19% execute these trades only in venues based in the EEA, the US, or Singapore.[243] As such, only a minority of customers execute these trades only in trading venues based or recognised in the EEA, (the US and Singapore), which provides a good indication that the market for OTC IRD trading is likely global. While the proportion of sell-side customers who only trade on EEA-based venue (and equivalent third country venues) is very limited (5% based on the result of the market investigation), this proportion is slightly larger for buy-side customers (30% based on the results of the market investigation.[244] This indicates that the worldwide nature of the OTC IRD trading is even stronger for the D2D trading channel.

(194) Regarding trades subject to the trading obligation, these can be executed by venues from the EU, US, and Singapore. From a legal standpoint, Article 28 of MiFIR provides that OTC derivatives that have been declared subject to the trading obligation must be traded on an EU trading venue, that is, a RM, MTF, or OTF, or a trading venue established in a third-country in respect of which the European Commission has adopted an equivalence decision.[245] Currently, the European Commission adopted an equivalence decision in favour of the US (in relation to the

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240 Question 8.2, Questionnaire 1 to OTC IRD trading and clearing buy-side customers, Doc ID 6470. Question 8.2, Questionnaire 3 to OTC IRD trading and clearing sell-side customers, Doc ID 6474.

241 Question 8.2, Questionnaire 1 to OTC IRD trading and clearing buy-side customers, Doc ID 6470.

242 Question 8.2, Questionnaire 3 to OTC IRD trading and clearing sell-side customers, Doc ID 6474.

243 Question 8.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 8.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

244 Question 8.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 8.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

245 Article 28(1)(d) of MiFIR. See also Form CO, paragraph C.V.117.

DCMs and SEFs listed in the annex to the relevant decision) and Singapore (approved exchanges and recognised market operators listed in the annex to the relevant decision).[246] Hence, because of equivalence granted by EU authorities, EU-based customers can trade IRDs on a US SEF or DCM, or a Singapore exchange, and still satisfy EU regulatory obligations. This means that there is substitutability for the trading services executed by EU, US, and Singapore venues for these trades.

(195) *Second*, in order to assess the geographic scope of the OTC IRD trading market, and its potential sub-segments, the Commission assessed the supply-side substitutability between the provision of OTC IRD trading services in the EEA and beyond the EEA. For the reasons explained below, the results of the market investigation indicate that, from the perspective of the supply, the geographic scope of the market for the provision of OTC IRD trading services (and its possible sub-segments) is largely global.

(196) Firstly, the Commission assessed where the OTC IRD trading venues of Tradeweb and its main competitors (Bloomberg, Tradition, BGC, and TPICAP) are based. For instance, Tradeweb owns venues subject to the EU and US regulatory regimes. They are allowed to offer trading services to customers in the EU, in the US, and in other countries recognising their venues.

(197) Secondly, the Commission investigated at which geographic level prices are set by OTC IRD trading venues. In this regard, the Commission notes that Tradeweb sets fees and conditions applicable to its venues for OTC IRDs based on the venues, not the location of customers. Therefore, Tradeweb set different fees and conditions for (i) Tradeweb's MTF, (ii) Tradeweb's SEF, and (iii) Dealerweb's platforms.[247] In addition, while Tradeweb offers special standalone subscriptions for certain currencies, these are not restricted or adapted to the location of the customers.[248] This further indicates that the geographic location of a customer has less relevance from the supply-side perspective than other factors which are taken into account to devise a given venue's pricing policy.

(198) *Thirdly*, the Commission noted that the global nature of the OTC IRD trading supply is confirmed by the information collected from trading venues. For instance, BGC describes itself as a *"global brokerage and financial technology company*".[249] Tradeweb and Bloomberg are also global players, active in OTC IRD trading services across the world, and across a wide range of currencies.[250] For instance, as illustrated by Tradeweb's internal document, Tradeweb is active for OTC IRD trading in the following regions:

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246 See ESMA's "Public Register for the Trading Obligation for derivatives under MiFIR", which lists on page 6 the third-countries deemed equivalent for the purpose of the trading obligation (https://www.esma.europa.eu/sites/default/files/library/public_register_for_the_trading_obligation.pdf, last accessed on 14 September 2020).

247 Form CO, OTC IRD Chapter, Annex 3.

248 Form CO, OTC IRD Chapter, Annex 3.

249 Question 1, Questionnaire 4 to OTC IRD trading competitors, Doc ID 6475.

250 As evidenced, e.g., by the market shares provided in Section 4.3.4.

Figure 3



(199) Based on the above and the evidence available to it, the Commission therefore considers that the geographic scope of the market for the provision of OTC IRD trading services is likely global. However, the Commission considers that the question of whether the geographic scope of the market for the provision of OTC IRD trading services (and its plausible sub-segments) is the EEA or global can be ultimately left open because the Transaction would significantly impede effective competition, due to vertical effects (customer foreclosure), under both plausible geographic market definition.

3.5.2.3. Conclusion

(200) Based on the above and the evidence available to it, Commission considers that the provision of trading services for OTC IRDs constitutes a separate product market, which is segmented by trading channel (i.e. between the provision of D2C and D2D trading service), which can be further segmented by (i) execution method (on-venue and off-venue) and (ii) type of contract or currency, and is likely global in scope (and, in any event, is at least EEA-wide). However, the Commission also considers that the question of whether the market for the provision of OTC IRD trading services (and its plausible sub-segments) should ultimately (i) be segmented either by execution method, and/or type of contract or currency and/or (ii) be EEA or global in scope, can be ultimately left open because the Commission's conclusion that the Transaction would significantly impede effective competition due to customer foreclosure would not change under any of these market definitions (i.e. regardless of whether the market for the provision of OTC IRD trading services is (i) segmented by trading channel, execution method, and/or type of contract or currency and/or (ii) is EEA-wide or global in scope).

3.5.3. Provision of trading services for over-the-counter foreign exchange products

3.5.3.1. Relevant product market definition

A. Previous Commission decisions

(201) As mentioned in recital (108) above, in past decisions, the Commission considered that the provision of trading services for derivative contracts can be distinguished based on underlying asset classes (i.e. with a separate product market for FX products), execution environment (i.e. between on-exchange trading and OTC trading), and types of contracts.[251]

(202) With regard to the FX products in particular, the Commission had previously considered *ICE/NYSE*,[252] potential segmentations by currency pair, but ultimately left

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251 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 727.

252 Commission decision of 24 June 2013 in Case M.6873 - *ICE/NYSE Euronext*, paragraph 69.

open the product market definition as that transaction did not give rise to competition concerns under any possible market definition.[253]

B. The Notifying Party's view

(203) *First*, the Notifying Party considers that a segmentation of the market for the provision of trading services for derivatives according to the underlying asset class is appropriate, and that FX derivative trading belongs to a separate market.[254] Although FX spots are technically not derivatives, the Notifying Party includes all FX trading within this market.[255]

(204) *Second*, the Notifying Party sees no reason to deviate from the Commission's previous finding that the market for FX derivatives trading should be segmented by execution environment (i.e. between exchange-traded and OTC FX trading).[256]

(205) *Third*, the Notifying Party submits that a segmentation according to trading method (i.e. voice, electronic and mixed model) is not appropriate in relation to OTC FX trading.[257] The Notifying Party notes that m FX trading is possible across a spectrum of execution methods, including voice, chat, and mixed model venues and claims that market participants monitor and negotiate FX prices across these different possibilities (often simultaneously).[258] According to the Notifying Party, the delineation between voice and electronic trading is blurred by the fact that most electronic venues allow customers to agree trade by voice (e.g. Bloomberg). [259] The Notifying Party also notes that despite a general shift towards electronification of trading in recent years, the relevance of voice trading varies across asset classes and voice continue to represent approx. [40-50]% of OTC FX trading.[260]

(206) *Fourth*, the Notifying Party considers that a segmentation by trading channel (i.e. between D2C and D2D OTC FX trading) is appropriate and accurately reflects the competitive dynamics in the market.[261] According to the Notifying Party, this is notably because (i)trading venues belonging to each respective trading channel serve a different purpose and generally attract different customer groups, as illustrated by the fact that Refinitiv has two trading venues, one focusing on D2C trades (FXall) and another one focusing on D2D trades (FX Matching) and because (ii) market-makers and primary dealers are crucial to ensure liquidity on the FX trading market given the sophisticated nature of FX pricing and risk management

(207) *Fifth*, the Notifying Party considers that a further sub-segmentation by contract type is not appropriate on the basis that the majority of customers need to execute multiple FX product types and look for execution solutions that support these different product types [262] According to the Notifying Party, from a supply-side perspective, (i) most suppliers of OTC FX trading services consider it necessary to offer a range of FX contract types (both spot and derivative products) to meet the

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253 Previously, in Mitsubishi Bank / Bank of Tokyo (Commission decision of 17 July 1995 in Case M.596 – *Mitsubishi Bank / Bank of Tokyo*, paragraph 10), the Commission considered FX trading market generally (including spots and derivatives).

254 Form CO, paragraph C.IV.72.

255 Form CO, paragraph C.IV.10ff and footnote 38.

256 Form CO, paragraphs C.IV.73-74.

257 Form CO, paragraph C.IV.75.

258 Form CO, paragraphs C.IV.75 and C.IV.77.

259 Form CO, paragraphs C.IV.75-76.

260 Form CO, paragraph C.IV.75.

261 Form CO, paragraphs C.IV.79-82.

262 Form CO, paragraph C.IV.83.

customers' demand and (ii) as most existing suppliers have the technology to expand into other FX contract types should their customers demand it, the cost of entry would be low in this regard. [263]

(208) *Sixth*, the Notifying Party also considers that a further sub-segmentation by currency pair is inappropriate because, from a demand perspective, most market participants trade FX products and require trading solution comprising multiple currency pairs and, from a supply-side perspective, providers already possess the technology to easily add further currency pairs to their existing offerings.[264]

C. The Commission's assessment

(209) On the basis of the market investigation results and the evidence available to it, the Commission considers that the provision of electronic OTC trading services for FX products constitutes a separate product market, which can be segmented by trading channel (i.e. between D2C and D2D trading), between FX derivatives and FX spots, by contract type and underlying currency, and which can be separate from trading services provided by SDPs. The Commission takes this view for the following reasons.

(210) *First*, as explained in recitals (211) and (212), the results of the market investigation are in line with the Commission's precedents regarding the segmentation of derivatives based on underlying asset class and execution environment according to which the trading of OTC FX derivatives would be a separate market.[265] The Commission therefore considers that the provision of trading services for OTC FX derivatives constitutes a separate product market from the provision of trading services for other types of derivatives or from the provision of trading services for exchange-traded derivatives. In this regard, as neither Party is active in FX trading on exchange, only OTC FX trading is considered for the purposes of this Decision.

(211) *Second*, with regard to the Notifying Party's claim that the trading of FX derivatives and FX spots are substitutable, the results of the market investigation indicate that there are differences in the competitive dynamics of the provision of trading services for these two products, in particular because FX spots are described as more liquid assets that are more traded electronically than FX derivatives. For instance, Caxton International, a customer, indicates that "[S]*ome FX products such as spot FX have plenty of participants allowing competitive electronic pricing. However some FX products are not as well established as spot FX. For example FX swap market where streaming swap points for settlement date out to 2 years would require increased CPU resource and network bandwidth and for some liquidity provider use of this resource is not justifiable for number of trades they will win this leads to reduced number of participants and reduced competition*".[266] In the same vein, Virtu Financial Ireland Ltd explains that "[I]*n FX, the SPOT market is electronified, but NDFs, deliverable forwards and other derivatives are less so*",[267] and Banca Sella

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263 Form CO, paragraph C.IV.83.

264 Form CO, paragraph C.IV.85.

265 The Commission notes that, regarding the execution environment, customers unanimously referred to the respective competitors in the same execution environment (OTC) as the closest competitors to Tradeweb. Question 22, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 20, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

266 Question 20.1, Questionnaire 14 to general trading customers, response of Caxton International, Doc ID 6464.

267 Question 20.1, Questionnaire 14 to general trading customers, response of Virtu Financial Ireland Ltd, Doc ID 6464.

Holding Spa indicates that it "*use only electronic trading for spot FX, voice for derivative FX*".[268] As a result, the Commission concludes that the provision of OTC FX trading services can be segmented between FX spots and FX derivatives, although the questions of this market segmentation can ultimately be left open as the Transaction does not significantly impede effective competition regardless of whether the market should be segmented in this way.

(212) *Third*, in line with its precedents and the submissions of the Notifying Party, the Commission considers FX trading to be distinct from trading in other asset classes and OTC trading of FX products to be separate from exchange-trading of FX products. The market investigation did not provide any indications that these segmentations are not appropriate.

(213) *Fourth*, based on the market investigation results, the Commission considers that a distinction should be made by trading method (i.e. between voice and electronic trades). In fact, the majority of end-customers do not consider the different methods substitutable and several customers highlight that these methods are complementary. For instance, ATP considers that "*Voice trading complements electronic trading*", and Citibank explains that "*Many sub-products within FX are not amenable to electronic trading because of illiquidity and lack of homogeneity in the economics of the product (for instance, curve products). On the other hand, highly liquid electronic products such as G10 spot FX are not substitutable from electronic to voice dealing because of high volumes and ticket counts*". Natwest Markets Plc further emphasizes the fact that "*There is too much volume traded via electronic platforms for it to be substituted*".[269] Moreover, some customers indicate that FX markets move too quickly to be able to systematically compare FX product prices obtained via voice to prices on electronic platforms.[270] As Refinitiv is only active in electronic trading and LSEG is not active in FX trading, only the segment of the provision of electronic FX trading services will be considered for the purposes of this Decision.

(214) *Fifth*, regarding a potential segmentation by trading channel (i.e. between D2C and D2D), the market investigation indicates that the large majority of buy-side customers cannot access D2D venues, and the large majority of sell-side customers do not transact D2D trades on D2C venues.[271] In addition, contrary to the provision of trading services for EGBs, the market investigation does not highlight any convergence trend between the D2C and D2D trading channel of FX trading. The Commission therefore considers that the markets for OTC FX trading is likely segmented between the D2C and D2D trading channels, although the question of the relevance of this possible segmentation can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition, regardless of whether the market is segmented in this way.

(215) *Sixth*, within D2C trading, some responses to the market investigation suggest that single dealer platforms (SDPs) do not compete directly with other electronic platforms. Very few end-customers named SDPs when listing the D2C venues they

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268 Question 20.1, Questionnaire 14 to general trading customers, response of Banca Sella Holding Spa, Doc ID 6464.

269 Question 20, Questionnaire 14 to general trading customers, responses of ATP, Citibank and Natwest Markets Plc, Doc ID 6464. See also Question 21, Questionnaire 15 to general trading competitors, Doc ID 6465.

270 Question 23, Questionnaire 14 to general trading customers, Doc ID 6464.

271 Questions 26-27, Questionnaire 14 to general trading customers, Doc ID 6464.

trade FX products on.[272] The Commission therefore considers that the markets for OTC FX trading by SDPs could form a separate product markets, although the question of the relevance of this possible segmentation can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition, regardless of whether the market is segmented in this way. .

(216) *Lastly*, the market investigation provides some elements to indicate that a segmentation of FX trading by contract type may be appropriate. In particular, some customers indicate that they tend to trade certain FX products on certain venues (even though all OTC venues offer trading services for all the main types of contracts).[273] For instance, BBVA indicates "*FX Swaps in 360T & Refinitiv Matching FX Spot in EBS*", while Commerzbank AG explains "*NDFs and swaps are significantly more concentrated when it comes to electronic execution (Reuters Matching for swaps, EBS for NDFs)*".[274] This is further demonstrated by Refinitiv's divergent market shares in, for instance, FX spots and FX derivatives trading markets (see Section 4.3.6). The Commission therefore considers that the markets for OTC FX trading could be segmented by type of contract, although the question of the relevance of this possible segmentation can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition, regardless of whether the market is segmented in this way.

3.5.3.2. Relevant geographic market definition

A. Previous Commission decisions

(217) Previously, in *Mitsubishi Bank / Bank of Tokyo*, the Commission found that the geographic market for FX trading was global in scope.[275] More recently in *ICE/NYSE*, the Commission left open the geographic market definitions as that transaction did not give rise to competition concerns under any possible market definition.[276] In addition, as mentioned in Section 3.5.2.2 above, the Commission has previously considered that ETD derivative trading markets are likely at least EEA-wide in scope.[277]

B. The Notifying Party's view

(218) The Notifying Party explains that the scope of the geographic market is global, on the basis that: (i) FX markets are inherently international as market participants are ultimately trading in contracts linked to different global currencies; (ii) trading takes place almost 24 hours a day with market participants worldwide trading on the same venues; and (iii) the demand-side of the market consists of major financial institutions with a global presence which use the same venues to clear trades executed in different regions.[278]

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272 Question 24, Questionnaire 14 to general trading customers, Doc ID 6464.

273 Question 28, Questionnaire 14 to general trading customers, Doc ID 6464.

274 Question 28, Questionnaire 14 to general trading customers, responses of BBVA and Commerzbank AG, Doc ID 6464.

275 Commission decision of 17 July 1995 in Case M.596 – *Mitsubishi Bank / Bank of Tokyo*, paragraph 10.

276 Commission decision of 24 June 2013 in Case M.6873 - ICE/NYSE Euronext, paragraph 78.

277 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 761. See also International Exchange/NYSE Euronext, para. 75

278 Form CO, paragraph C.IV.93ff.

C. The Commission's assessment

(219) The market investigation indicates that the majority of customers trade OTC FX products on worldwide venues and that the majority of trading competitors are active and set their fees at worldwide level.[279] As such, these elements of demand and supply-side substitutability indicate that the provision of trading services for OTC FX product appears global. Taking into account this evidence, and in line with its precedent, the Commission therefore considers that the geographic scope of the provision of OTC FX trading services is global.

3.5.3.3. Conclusion

(220) Based on the above and the evidence available to it, the Commission considers that the electronic OTC provision of trading services for FX products is a separate product market, which is global in scope, and which can be further sub-segmented by trading channel (between D2C and D2D), which can be separated for SDPs or between FX spots and FX derivatives, which may potentially be further segmented into contract types or underlying currency. However, the Commission considers that the question of whether these sub-segmentations are relevant can be ultimately left open for the purposes of this Decision given that the Transaction does not significantly impede effective competition, regardless of whether the market is segmented in these ways.

3.5.4. Provision of trading services for equity index derivatives

3.5.4.1. Relevant product market definition

A. Previous Commission decisions

(221) As mentioned in Sections 3.5.1 and 3.5.3 above, the Commission has previously considered a distinction between the trading services for different types of derivatives based on the underlying asset class.

(222) In *Deutsche Börse/NYSE Euronext*, the Commission has identified a standalone market for equity derivatives, further sub-segmented by type of underlying asset into markets for single stock equity derivatives and equity index derivatives.[280] With respect to equity index derivatives, the Commission considered that the different index derivatives are typically tied to a geographic region and, therefore, not substitutable with each other. Thus, the Commission defined separate relevant product markets for each families of existing national and pan-European equity indices.[281]

(223) In *Deutsche Börse/LSEG*, the Commission examined separately the market for single stock equity derivatives.[282] The Commission considered whether further segmentation according to the contract type, in particular between futures and options, is appropriate, but ultimately left the exact market definition open.[283]

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279 Question 19, Questionnaire 14 to general trading customers, Doc ID 6464; Question 11, Questionnaire 15 to general trading competitors, Doc ID 6465.

280 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraphs 420 and 427.

281 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraphs 420 and 427.

282 Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 751.

283 Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 743.

(224) In previous cases, the Commission has distinguished potential sub-segments in the trading of financial derivatives according to execution environment, defining separate product markets for exchange-traded and OTC-traded derivatives.[284]

B. The Notifying Party's view

(225) The Notifying Party considers that a segmentation of the market for the provision of trading services for derivatives according to the underlying asset class is appropriate, and that equity derivatives belong to a separate market.[285]

(226) The Notifying Party agrees with the further sub-segmentation of the market for equity derivatives between (i) a standalone markets for single stock equity derivatives on the one side and (ii) equity index derivatives on the other side.[286]

(227) The Notifying Party does not express a view on whether the market for equity index derivatives should be divided based on the geographic region covered by the derivative contracts. Nevertheless, taking into account the precedents, the Notifying Party submits shares for all equity index derivatives and, separately, for Italian equity index derivatives.[287]

(228) The Notifying Party agrees with the segmentation of the market for the provision of trading services for derivatives according to the execution environment. The Notifying Party accordingly submits market shares separately for exchange-traded and OTC-traded equity derivatives.[288]

(229) With respect to the trading of OTC equity derivatives, the Notifying Party contends that further separation between listed and non-listed equity derivatives is not appropriate. According to the Notifying Party, there is substitutability between listed and non-listed equity derivatives, because (i) trading venues offer trading services for (and OTC liquidity providers act as a source of liquidity for) both listed and non-listed equity derivatives and (ii) most customers typically trade both product categories without focusing on one of them in particular.[289]

(230) As regards trading services for OTC equity derivatives, the Notifying Party outlines a plausible further distinction between D2D and D2C venues, in particular because certain venues are specifically dedicated to either D2D or D2C trading and compete with each other in each of these trading channels but not across them. Nevertheless, the Notifying Party contends that the exact market definition could be left open.[290]

(231) The Notifying Party considers that further distinction between futures and options is not appropriate. According to the Notifying Party, in general, the same investors typical trade both contract types and trading venues typically facilitate the trading of both futures and options. Nevertheless, the Notifying Party submits that the exact market definition can be left open.[291]

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284 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraphs 260; and Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 737.
285 Form CO, paragraph C.II.32.
286 Form CO, paragraph C.II.39.
287 Form CO, paragraph C.II48.
288 Form CO, paragraph C.II.33.
289 Form CO, paragraph C.II.36.
290 Form CO, paragraph C.II.37.
291 Form CO, paragraph C.II.38.

C. The Commission's assessment

(232) Based on the market investigation results and the evidence available to it, the Commission concludes that the provision of trading services for exchange-traded equity index derivatives and the provision of trading services for OTC-traded equity index derivatives constitute separate product markets. The Commission takes this view for the following reasons.

(233) First, in line with its previous decisions and the submissions of the Notifying Party, the Commission considers trading services for equity derivatives to be separate from trading services provided in respect to other asset classes (e.g. IRDs, currency derivatives, commodity derivatives, credit derivatives, and FX derivatives). The market investigation did not provide any indications that these segmentations are not appropriate.

(234) Second, in line with precedents, the Commission considers that a further segmentation of equity derivatives by type of underlying asset is relevant. Equity derivatives are contracts that derive their value from price movements of the underlying equity stock. In its previous decisions, the Commission drew a classic distinction between index based equity derivatives, which are linked to a number of equities, and single stock equity derivatives, which derive their value from the price movement of one specific underlying stock. There is limited substitutability between single stock-based and index-based equity derivatives. Market participants often trade index-based derivatives to gain direct exposure to the relevant benchmark for the underlying equity investment portfolio. Market participant may adopt a strategy to arbitrage between an index and one of its components. In that case, they may trade both equity index derivatives and single stock equity derivatives, but not one type instead of the other. For the case at hand, only equity index derivatives are relevant due to their vertical relationship with the markets for the provision of UK, global, European and multi-asset equity indices.

(235) Third, despite the lack of substitutability between different families of index derivatives, the Commission considers that further segmentation of equity index derivatives based on geography is not relevant in the present case. The Notifying Party submits that only LSEG is active in the trading of exchange traded equity index derivatives. LSEG is present through Borsa Italiana's IDEM and IDEM's revenue from the trading of non-Italian equity index derivatives represents [quantity] of the total turnover for the trading of equity derivatives.

(236) Fourth, as explained in Sections 3.5.1 and 3.5.3 above, the results of the market investigation are in line with the Commission's precedents regarding the segmentations of trading services for financial derivatives based on (i) execution environment (*i.e.* between over-the-counter and exchange traded derivatives) and (ii) trading channel (*i.e.* between the provision of D2C and D2D trading service).

(237) Lastly, regarding a potential segmentation by contract type, the Commission considers that a further segmentation according to the contract type, in particular between futures and options, might be appropriate. However, the precise question of whether it is appropriate or not to draw a distinction between futures and options can be ultimately left open as the Transaction does not significantly impede effective competition, regardless of whether or not the market is divided between futures and options.

3.5.4.2. Relevant geographic market definition

A. Previous Commission decisions

(238) In *Deutsche Börse/NYSE Euronext*, the Commission considered the geographic scope of the market for the provision of trading services for exchange-traded equity index derivatives. The Commission noted that customers are located around the world, however, only European venues offer derivatives based of European equity indices. The Commission did not reach a conclusive decision whether the market for exchange traded equity index derivatives is worldwide or EEA-wide.[292]

(239) In *Deutsche Börse/LSEG*, the Commission considers that the market for the provision of trading services for single stock equity derivatives is at least EEA-wide in scope.[293]

B. The Notifying Party's view

(240) As regards exchange traded equity derivatives, the Notifying Party agrees with the Commission's findings in *Deutsche Börse/NYSE Euronext*. The Notifying Party submits that the same findings are applicable to OTC-traded equity derivatives as well. The Notifying Party submits market shares at EEA level as the narrowest plausible geographic market.

C. The Commission's assessment

(241) Based on the market investigation results and in line with the Notifying Party's arguments and the previous decisions, the Commission considers that the geographic scope of the market for the trading and clearing of equity index derivatives is at least EEA-wide, and possibly worldwide, although the precise geographic market definition can be ultimately left open as the Transaction does not significantly impede effective competition, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

3.5.4.3. Conclusion

(242) Based on the above and the evidence available to it, the Commission considers that the provision of trading services for equity index derivatives constitutes a separate product market, which is segmented by trading channel (*i.e.* between the provision of D2C and D2D trading service), execution environment (*i.e.* between over-the-counter and exchange traded derivatives) and geographic region. In addition, the provision of trading services for equity index derivativescan be further segmented by contract type (*i.e.* between futures and options) and is likely global in scope (and, in any event, is at least EEA-wide). However, the Commission also considers that the questions of (i) whether the market for the provision of trading services for equity index derivatives (and its plausible sub-segments) should ultimately be segmented by contract type (*i.e.* between futures and options) and (ii) whether it should be considered as EEA or worldwide in scope can ultimately be left open for the purposes of this Decision, because the Transaction does not significantly impede effective competition, regardless of whether or not the market is divided between futures and options and/or whether its scope is EEA-wide or worldwide.

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292 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraphs 461 and 462.

293 Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 770.

3.6. Provision of Clearing Services for Financial derivatives

3.6.1. Provision of clearing services for over-the-counter interest-rate derivatives

3.6.1.1. Relevant product market definition

A. Previous Commission decisions

(243) The Commission has previously defined separate product markets for the clearing of derivatives by underlying asset class (e.g. IRDs), execution environment (exchange-traded and OTC), type of customer and type of contract (defining swaps as separate from futures and options, while leaving open whether future and options constitute separate markets in terms of clearing or not).[294]

B. The Notifying Party's view

(244) The Notifying Party agrees with a segmentation of clearing by underlying asset class and execution environment. Authorisations by supervisory authorities in the EU (ESMA) to provide clearing services are granted on a per asset class and per execution environment basis, i.e. distinguishing between "exchange-traded" and "OTC".[295]

(245) The Notifying Party further submits that a distinction by currency and different types of OTC IRDs is not appropriate for the following reasons. From a supply side perspective, there are no significant barriers for CCPs to offer clearing for additional types of IRDs or other currencies. From a demand side perspective, customers clear a broad range of IRDs in different currencies, including foreign currencies (i.e. EU-based customers do not only trade Euro-denominated IRDs, etc.).

(246) Furthermore, the Notifying Party does not consider a distinction by trading channel (D2C vs. D2D) as relevant at the clearing level. The Notifying Party claims that CCPs are unable to reliably identify the trading venue (or channel) where a trade was executed when the middleware provider MarkitWire is used, as the trading venue field is not relevant for clearing purposes.

C. The Commission's assessment

(247) Having regards to the market investigation results and the evidence available to it, the Commission considers that the provision of OTC IRD clearing services constitutes a separate product market, which is not sub-segmented by trading channel (D2C versus D2D), but which can be sub-segmented according to the type of OTC IRD contract and/or currency. However, the Commission concludes that the question of whether the relevant product market for the provision of OTC IRD trading services should be segmented by type of OTC IRD contract and/or underlying currency can be ultimately left open for the purposes of this Decision as the Transaction would result in a significant impediment to effective competition due to vertical effects of customer foreclosure irrespective of whether the provision of OTC IRD clearing services should be segmented by types of OTC IRD contracts and/or underlying currencies or not.

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294 Commission decision of 1 February 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 444 and Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 748, 750.

295 See ESMA's List of Central Counterparties authorised to offer services and activities in the Union: https://www.esma.europa.eu/sites/default/files/library/ccps_authorised_under_emir.pdf, dated 9 April 2020 (last accessed on 23 September 2020).

The provision of OTC IRD clearing services

(248) *First*, the Commission considers that the provision of clearing services for OTC IRDs forms a separate product market as the market investigation did not provide any evidence casting doubt on the Commission's findings from previous cases that separate relevant markets for the clearing of derivatives trades exist depending on the underlying asset class and execution environment.

Distinction between the clearing of D2C and D2D OTC IRD

(249) *Second*, the Commission assessed whether a segmentation of the OTC IRD clearing market by trading channel is relevant. In this regard, the Commission's in-depth investigation confirms the Notifying Party's view that a distinction by trading channel (D2C vs. D2D) is not warranted at the clearing level. Market feedback indeed indicates that there is a large degree of substitutability in the provision of CCP clearing services for OTC IRDs, regardless of whether the trade was executed between a dealer and a customer (D2C), or between dealers (D2D).

(250) Firstly, in order to assess whether a segmentation of the OTC IRD clearing market by trading channel is relevant, the Commission considered the demand-side substitutability between the provision of D2C and D2D clearing services. In line with the Commission Notice on the definition of the relevant market, this assessment "*entails a determination of the range of products which are viewed as substitutes by the consumer*".[296]

(251) In the first place, the Commission considered whether customers clear OTC IRD trades in similar proportion in the D2C and D2D channels. The results of the market investigation reveal that the vast majority of both clients and dealers clear all or most of their OTC IRD trades.[297] More specifically, 82% of buy-side customers clear their OTC IRD trades "*always*" or "*most of the time*",[298] while 90% of sell-side customers clear their OTC IRD trades "*always*" or "*most of the time*".[299] These elements indicate that none of the trading channels has a noticeably stronger preference for clearing, which suggests that neither trading channel would be particularly more important for CCPs (i.e. the D2C channel is not more important than the D2D channel, and vice versa).

(252) In the second place, the Commission considered whether one trading channel was more affected by the clearing obligation, in the sense that customers trading in one channel would trade more OTC IRD contracts subject to the clearing obligation. From a legal standpoint, the clearing obligation applies to both channels. This element, taken together with (i) what was exposed in recital (251), (ii) the fact that 78% of all OTC IRD trades were cleared in 2018, and (iii) the fact that [90-100]% of the OTC IRD trades cleared by LCH SwapClear and that originated on an SEF, OTF or MTF, are subject to mandatory clearing,[300] suggests that a large majority of both D2C and D2D OTC IRD trades are subject to clearing. This indicates that a trading channel would not be particularly more commercially important for CCPs than

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296 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 15, OJ C 372, 9.12.1997, p. 5–13.

297 Question 29, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 36, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

298 Question 29, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

299 Question 36, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

300 Form CO, C.V.37.

another (i.e. the D2C channel is not more important than the D2D channel, and vice versa).

(253) For completeness, and noting that this does not put in dispute the substitutability between D2C and D2D clearing services, the Commission observes that there may be some differences in clearing preferences between the sell-side and buy-side customers (and consequently differences in clearing preferences between the D2C, where buy-side customers tend to decide whether and how to clear, and the D2D markets, where such decisions are into the dealers' hands).[301] Indeed, sell-side customers are usually connected to more CCPs,[302] which can be explained by (i) the fact that they have to be connected to the different CCPs chosen by their various clients and (ii) the best execution obligation they have to fulfil for their clients. In the same vein, and for similar reasons, a more limited proportion of sell-side customers clear all their trades in one CCP (namely 6% of dealers while 37% of buy-side customers intend to clear in one CCP only).[303] Despite this, the market dynamics may make buy-side customers generally more open to clearing in different CCPs if this can lead to better prices (vs. trying to concentrate all their trades in one CCPs). This is because, as explained in Section 4.5.36.1.B below, unlike dealers, clients do not directly benefit from the effects of clearing all trades in the same CCP regarding, e.g. compression and margin requirements (although clients may indirectly benefit from these effects too as dealers would typically pass-on additional costs to customers).

(254) Secondly, in order to assess whether a segmentation of the OTC IRD clearing market by trading channel is relevant, the Commission considered the supply-side substitutability between the provision of D2C and D2D clearing services. In line with the Commission Notice on the definition of the relevant market, a supply-side substitutability assessment "*may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term (4) without incurring significant additional costs or risks in response to small and permanent changes in relative prices*".[304]

(255) As a first element, the Commission assessed whether CCPs for OTC IRDs offer clearing services to both trading channels. The major CCPs of OTC IRDs seem to clear OTC IRDs regardless of whether they come from the D2C or a D2D trading channel (e.g. LCH SwapClear, Eurex, and JSCC). For instance, buy-side and sell-side customers explain that they rely on the following CCPs to clear their trades: LCH SwapClear, Eurex, CME, Japan Securities Clearing Corp (JSCC), Korea Exchange IRS Clearing (KRX), OTC Clear Hong Kong Limited (OTC CLEAR), BME Swaps, CS International London, JP Morgan.[305] The fact that numerous CCPs provide CCP clearing services for D2C and D2D OTC IRD trades provides strong

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301 Question 36.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474; Question 29.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

302 Question 36.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474; Question 29.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

303 Question 32, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 39, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

304 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 20, OJ C 372, 9.12.1997, p. 5–13.

305 Question 2, Questionnaire to CME regarding OTC IRD, Doc ID 5434.

indications that the clearing of OTC IRD trade feeds coming from the D2C and D2D channels are substitutable from a supply-side perspective.

(256) As a second element, the Commission considered whether the offering of clearing services for D2C and D2D trades require similar supply features, e.g. in terms of technology or offering. The results of the market investigation indicate that the clearing of D2C and D2D OTC IRDs is largely similar for CCPs. For instance, Nasdaq explains: "*From a clearinghouse perspective, there is no difference between the trade feeds from a D2D or D2C venues"*[306] and BME indicates: "*From our perspective as a CCP, there is no difference between both kinds of trade feeds".*[307] In addition, Eurex explains that "*The processing of D2D and D2C trades is similar".*[308] This indicates that the D2C and D2D channels are largely substitutable from a supply-side perspective.

(257) In addition, while the Commission notes that for some CCPs, clearing D2C or D2D trades may involve different technical features, this element does not call into question the large degree of substitutability for suppliers between D2C and D2D trading. This is because these technical differences appear minor. Indeed, while Eurex explains that it offers different functionalities for D2C and D2D trades, Eurex further states that *"there are limited technical differences between trades from D2C and D2D feeds, Eurex does have to offer different functionality to serve D2D and D2C trade feed".*[309] Similarly, CME explains that there are minor differences between D2C and D2D trade feeds for CCP regarding the "*submission to clearing"* because *"While D2C trades are typically submitted directly to CME, D2D trades are typically submitted to clearing through a middleware provider (e.g. MarkitWire). This is because middleware providers typically feed the internal risk systems of dealers, requiring the trade to be routed via the middleware to clearing*".[310] This difference outlined by CME is further limited by the fact that, not only D2D trades, but also D2C trades (e.g. from Tradeweb) are routed through MarkitWire.[311]

(258) As a third element, the Commission assessed whether trades coming from one trading channel were more important commercially for CCPs. In this regard, the Commission notes that feedback collected from CME and BME indicate that D2C feeds as not viewed as more important than D2D feeds, or vice versa. Asked whether CCPs compete for OTC IRD D2C and D2D trade feeds indistinctly or whether there are reasons leading to increased competition for a specific type of trade feed in particular, CME explains: "It *is important for a CCP to maintain connections to relevant execution venues and trade feeds. However, trading clients determine at which CCP they will clear a trade and are the key driver of the value chain*." [312] In addition, BME explains: "*We have no preference for any of the trade feeds, as a CCP needs a continuous flow of trades wherever it may come from. Thus, it does not differ by product category/currency/other aspects".*[313] This view is shared by the

306 Question 1, Questionnaire to Nasdaq regarding OTC IRD, Doc ID 5731.
307 Question 1, Questionnaire to BME regarding OTC IRD, Doc ID 5937.
308 Question 1, Questionnaire to Eurex regarding OTC IRD, Doc ID 6063.
309 Question 1, Questionnaire to Eurex regarding OTC IRD, Doc ID 6063.
310 Question 1, Questionnaire to CME regarding OTC IRD, Doc ID 5434.
311 Question 1, Questionnaire to IHS Markit, Doc ID 6516 ; Question 28, Questionnaire 4 to OTC IRD trading competitors, Doc ID 6475.
312 Question 1, Questionnaire to IHS Markit, Doc ID 6516 ; Question 28, Questionnaire 4 to OTC IRD trading competitors, Doc ID 6475.
313 Question 1.b), Questionnaire to BME regarding OTC IRD, Doc ID 5937.

Notifying Party.[314] This indicates that the D2C and D2D channels are largely substitutable from a supply-side perspective.

(259) In addition, while the Commission notes that Eurex considers D2C trade feeds economically more attractive than D2D trade feeds, this element does not call into question the large degree of substitutability for suppliers between D2C and D2D trade feeds. Indeed, the reasons put forward by Eurex are linked to its own growth strategy, not the market structure and dynamics. Eurex indeed explains that it views D2C trade feeds economically more attractive for the three following reasons: "*CCP Clearing for D2C trading is growing*", [315] "*CCP clearing for D2C trading is more easily attracted to challenger CCP*", and "*D2C "real money" buy-side is a particularly attractive client group*",[316] therefore thinking that its prospects for growth despite LCH SwapClear's dominance and the strong network effects characterising the CCP clearing market for OTC IRDs (described in Section 4.5.36.1.B.1.1.4. below) depend on its ability to attract more D2C customers.

(260) Based on the above and the evidence available to it, the Commission considers that OTC IRD clearing services for D2C and D2D trades are substitutable, and that a segmentation of the OTC IRD clearing market per trading channel is not relevant.

Distinction by type of OTC IRD contract and/or underlying currency

(261) *Third*, the Commission assessed whether the CCP clearing market for OTC IRDs should be sub-segmented by type of OTC IRD contracts or underlying currency. For the reasons explained below, the Commission concludes that a segmentation of the market for the provision of the OTC IRD clearing services based on the type of OTC IRD contract and/or currency can be appropriate. However, the Commission concludes that the question of whether the relevant product market definition for the provision of OTC IRD trading services should be segmented by type of OTC IRD contract and/or underlying currency can be ultimately left open for the purposes of this Decision as the Transaction would result in a significant impediment to effective competition due to vertical effects of customer foreclosure irrespective of whether the provision of OTC IRD clearing services should be segmented types of OTC IRD contracts and/or underlying currencies or not.

(262) Firstly, in order to assess whether a segmentation of the OTC IRD clearing market by type of OTC IRD contract or underlying currency is relevant, the Commission considered the demand-side substitutability between the provision of clearing services for the different types of OTC IRD contracts and currencies. In line with the Commission Notice on the definition of the relevant market, this assessment "*entails a determination of the range of products which are viewed as substitutes by the consumer*".[317]

(263) As a first element, the Commission took account of the fact that, as mentioned in Section 3.5.2.1 above, all customers do not trade all types of OTC IRD contracts or underlying currencies. As a consequence, all customers do not clear OTC IRD trades based on all types of contracts or underlying currencies. As mentioned in further details above, customers usually have a preference for certain types of OTC IRD

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314 Form CO, C.V.113.

315 In this regard, Eurex adds that "*"new" D2C clearing volumes that are expected to enter CCP clearing in the coming years*" (Question 1, Questionnaire to Eurex regarding OTC IRD, Doc ID 6063).

316 Questionnaire to Eurex regarding OTC IRD trading and clearing, paragraph 3, Doc ID 6063

317 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 15, OJ C 372, 9.12.1997, p. 5–13.

products (e.g. buy-side customers generally do not trade FRAs) or currencies (e.g. customers located in a certain region generally trade more in their own currency).[318]

(264) As a second element, the Commission considered whether the type of contract or underlying currency traded impact the choice of customers to clear. In this regard, the Commission notes that, from a legal standpoint, a number of types of OTC IRD contracts are subject to a legal clearing obligation under EMIR. These OTC IRD contracts subject to the clearing obligation under EMIR are listed in ESMA's public register.[319] They include some types of basis swaps, fixed-to-float interest rate swap classes, FRAs, and OISs (depending, e.g., on their maturity, and settlement currency). According to the Notifying Party, currently more than [90-100]% of the trades cleared by LCH SwapClear that originated on an SEF, OTF or MTF, are subject to mandatory clearing.[320] This indicates that the vast majority of OTC IRD cleared contracts are subject to mandatory clearing. Against this background, certain types of OTC IRD contracts (i.e. those not subject to the mandatory clearing obligation) are cleared in very little proportions, while the type of contract subject to the clearing obligation has to be cleared. As such, this indicates that there is a limited degree of demand-side substitutability between the types of OTC IRD contracts that are subject to the clearing obligation, and the types of OTC IRD contracts that are not subject to the clearing obligation.

(265) As a third element, the Commission assessed whether the type of contract or underlying currency impact the choice of CCP. In this regard, the market investigation reveals that different types of product and/or different currencies may matter in the choice of CCP. Indeed, CCPs' liquidity can vary across different OTC IRD contracts and/or currencies. Some customers mention that they clear certain products or currencies in a specific CCP, due to liquidity being higher there than in other CCPs.[321] For instance, Banco Santander explains "*The decision is based on liquidity access, for EUR Derivatives 95% of liquidity goes through LCH. This situation could be different in other currencies where other CCPs have a dominant position*".[322] In the same vein, CCP competitors such as Eurex,[323] OTC HK,[324] and JSCC,[325] state that certain CCPs have a particular competitive strength in particular currencies/geographic regions or products. In addition, this is confirmed by the market share estimates provided by the Notifying Party (See Section 4.3.3.2).[326]

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318 The Commission notes that, despite constituting an indication of the relevance of a potential segmentation of OTC IRD clearing by type of contracts or currency, this element does not reveal an absence of substitutability between CCP clearing services for different type of OTC IRD contracts and/or underlying currencies. Indeed, the choice of the OTC IRD contract and/or underlying currency is made by customers at the trading level (not at the clearing level).

319 See https://www.esma.europa.eu/sites/default/files/library/public_register_for_the_clearing_obligation_under_emir.pdf (last accessed on 18 September 2020).

320 Form CO, C.V.37.

321 Question 21, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474; Question 36.2, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

322 Question 21, Questionnaire 3 to OTC IRD sell-side customers, response of Banco Santander, Doc ID 6474.

323 Questions 17 and 20, Questions to Eurex, Doc ID 6063.

324 Question 23, Questionnaire 2 to CCP competitors, Doc ID 6473 (response of OTC HK).

325 Question 18, Questionnaire to JSCC, Doc 5364.

326 These market share estimates evidence that (i) Eurex's market position is higher for EUR-denominated OTC IRDs than for other underlying currencies, (ii) CME's market position is higher for USD-denominated OTC IRDs than for other underlying currencies, and that its market position is slightly

While this implies that some CCPs have a stronger market position for certain types of contracts or underlying currencies, it does not negate that CCPs compete against each other for these products.

(266) As a fourth element, the market investigation did not reveal whether customers would switch to the trading and clearing of certain types of OTC IRD contracts and/or underlying currency in case of a permanent price increase of 5-10%.

(267) Secondly, in order to assess whether a segmentation of the OTC IRD clearing market according to the type of OTC IRD contract or underlying currency is relevant, the Commission considered the supply-side substitutability between the provision of D2C and D2D trading services. In line with the Commission Notice on the definition of the relevant market, supply-side substitutability assessment "*may also be taken into account when defining markets in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term (4) without incurring significant additional costs or risks in response to small and permanent changes in relative prices*".[327]

(268) As a first element, the Commission considered whether all types of OTC IRD contracts or currencies are available for clearing in the different OTC IRD CCPs. The Commission notes that it is not the case: not all CCPs offer to clear all OTC IRD products, which indicates that the supply-side substitutability between OTC IRD trades is somewhat limited for certain types of OTC IRD contracts and currencies. This is evidenced by Figure 4 below, which provides an overview of the offering by LCH SwapClear, CME, and Eurex.[328] As it can be seen from Figure 4 below, CME and Eurex are not active in the clearing of Non Deliverable Interest Rate Swap ("NDIRS"), Basis Overnight/IBOR, and VNS (while CME is also not active in inflation zero coupon and Eurex is not active in Zero Coupon).

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higher for OTC IRSs than for OTC OIsS or OTC FRAs), and that (iii) JSCC's market position is higher for JPY-denominated OTC IRDs than for other underlying currencies.

327 Commission Notice on the definition of the relevant market for the purposes of Community competition law, paragraph 20, OJ C 372, 9.12.1997, p. 5–13.

328 Form CO, paragraph C.V. 110.

Figure 4

IRD Product	CME	Eurex	LCH SwapClear
IRS	- Up to 11Y: HUF, CZK, PLN, ZAR, CNY - Up to 15Y: NZD, HKD, SGD - Up to 21Y: CLP - Up to 31Y: CAD, JPY, CHF, AUD, SEK, DKK, NOK, MXN, KRW - Up to 51Y: USD, EUR, GBP	- Up to 10Y: PLN - Up to 30Y: CHF, JPY, DKK, NOK, SEK - Up to 50Y: EUR, GBP, USD	- Up to 11Y: CZK, HKD, HUF - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK, ZAR - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Non Deliverable IRS	N/A	N/A	- Up to 5.5Y: CNY - Up to 11Y: BRL, INR, THB, TWD - Up to 15.5Y: CLP, COP, KRW
Basis	- Up to 30Y: Fed Funds vs Libor (USD), SOFR vs Fed Funds, SOFR vs. Libor - Up to 31Y: AUD, JPY - Up to 51Y: USD, EUR, GBP	- Up to 30Y: CHF, JPY - Up to 50Y: EUR, GBP, USD	- Up to 11Y: CZK, HKD, HUF, ZAR - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Basis Overnight / IBOR	N/A	N/A	- Up to 5.5Y: NZD - Up to 31Y: AUD, CAD, JPY - Up to 51Y: EUR, GBP, USD
OIS	- Up to 3Y: CAD - Up to 6Y: AUD - Up to 10Y: INR - Up to 20Y: COP - Up to 30Y: SOFR, USD, EUR, GBP, JPY	- Up to 30Y: EUR, GBP, USD, CHF, JPY, SEK	- Up to 5.5Y: NZD - Up to 31Y: AUD, CAD, CHF, JPY - Up to 51Y: EUR, GBP USD
Zero Coupon	- Up to 10Y: BRL - Up to 20Y: CLP - Up to 50Y: USD, EUR, GBP	N/A	- Up to 11Y: CZK, HKD, HUF - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK, ZAR - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Inflation Zero Coupon	N/A	- Up to 30Y: EUR - Up to 50Y: GBP	- Up to 30Y: EUR, FRF, USD - Up to 50Y: GBP
FRA	- 3D to 3Y: USD, EUR, GBP, JPY, AUD, CAD, CHF, CZK, DKK, HUF, JPY, NOK, NZD, PLN, SEK, SGD, ZAR	- Up to 2Y: DKK, GBP, USD - Up to 3Y: EUR, GBP, USD, CHF, JPY, SEK	- Up to 3Y, 3M: CHF, CZK, DKK, EUR (EURIBOR-Reuters index), GBP, HUF, JPY, NOK, PLN, SEK, USD - Up to 3Y: EUR (LIBOR index)
VNS	N/A	N/A	- Up to 11Y: CZK, HKD, HUF - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK, ZAR - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Swaptions	Up to 30Y: USD (inferior or equal to 2 years expiry)	N/A	N/A

(269) Regarding CCPs other than CME, Eurex, and LCH SwapClear, this is evidenced by the responses to the market investigation, which highlight that (i) JSCC is not active in FRAs and NDIRS, (ii) KDPW is not active in OIS and basis swaps, BME is only active in IRS, NASDAQ is not active in FRAs, basis swap, and NDIRS.[329]

(270) As a second element, the Commission assessed whether CCPs that do not offer clearing services for some OTC IRD contracts or underlying currencies would be able to start providing clearing services for such types of trades in the short term, without incurring significant additional costs or risks, in response to small and permanent changes in relative prices. In this regard, the Commission notes that, while the cost (in terms of time and money) that clearing houses would incur to offer new OTC IRD contracts or currencies would not necessarily be significant, the success of such expansion hinges on the level of liquidity that the clearing house manages to bring on its platform. In addition, as mentioned above in recital (265), CCPs' liquidity can vary across different OTC IRD contracts and/or currencies. Regarding the time and costs incurred for providing clearing services for new types of contracts or currencies, OTC HK observes "*Expand new product within the same asset class, it will be ranging from 3-6 months*".[330] While this is a relatively limited period of time, the switch would not be "*immediate*", as described in the Commission Notice on the definition of the relevant market. In addition, as explained in more details in Section 4.5.36.1.B.1.1.4. below, the OTC IRD clearing market is characterised by strong network effects and the success of a CCP venue is linked to its ability to successfully capture liquidity. As such, contrary to the standard set by

329 Question 5, Questionnaire 2 to CCP competitors, Doc ID 6473.

330 Question 18, Questionnaire 2 to CCP competitors, Doc ID 6473, response of OTC HK.

the Commission Notice on the definition of the relevant market, CCPs are not able *"to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices"*.[331]

Conclusion

(271) Based on the above and the evidence available to it, the Commission considers that the provision of CCP clearing services for OTC IRDs is a separate product market, which can be segmented by type of OTC IRD contract (e.g. between IRS, FRA, and OIS) or underlying currency (e.g. between EUR and USD). However, the Commission considers that the question of whether OTC IRD clearing services should be segmented by type of OTC IRD contracts or underlying currencies can be ultimately left open because the Transaction (i) would result in a significant impediment to effective competition due to vertical effects of customer foreclosure and (ii) would not significantly impede effective competition, due to vertical effects of input foreclosure regardless of the precise market definition (i.e. of whether the market for clearing services forms a single market or should be segmented by type of OTC IRD contract or underlying currency).

3.6.1.2. Relevant geographic market definition

A. Previous Commission decisions

(272) In *Deutsche Börse/London Stock Exchange Group*, the Commission considered that the relevant geographic market for CCP clearing services for OTC traded interest rate derivatives is at least EEA-wide in scope.[332] In *Deutsche Börse/London Stock Exchange Group*, the Commission noted that, while on the one hand within the EEA competition takes place within the same regulatory framework, under similar conditions and irrespective of the location of the CCP within the EEA, on the other hand, certain large CCPs clear trades across several regions and market participants at least monitor the development of other CCPs outside Europe, namely CME.[333]

B. The Notifying Party's view

(273) The Notifying Party submits that the market for OTC IRD clearing is global for the following reasons. Trading, the input for clearing, is global in nature in OTC IRD trading markets. All major competitors of LCH are authorised and offer clearing services to EU customers, including US-based CME and Hong Kong-based HKEX. In turn, LCH is also authorised to clear trades for US customers. In addition, large dealer banks in particular prefer to clear as much as possible in one CCP (rather than in several regional CCPs) to benefit from cost savings associated with offsetting trades and portfolio margining.

C. The Commission's assessment

(274) On the basis of the market investigation results and the evidence available to it, and for the reasons detailed below, the Commission concludes that the geographic market for OTC IRD clearing, and its possible sub-segments by type of contract or currency, is global in scope. However, the Commission considers that the question of whether

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331 Commission Notice on the definition of the relevant market, paragraph 20.

332 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 768.

333 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraphs 764-767.

the relevant geographic market for the provision of CCP clearing services for OTC IRDs is EEA-wide or worldwide in scope can be ultimately left open given that the Transaction (i) would significantly impede effective competition, due to vertical effects of customer foreclosure and (ii) would not significantly impede effective competition, due to vertical effects of input foreclosure, regardless of whether the geographic market definition is EEA-wide or worldwide.

(275) As described in the Commission Notice on the definition of the relevant market, "*the relevant geographic market comprises the area in which the undertakings concerned are involved in the supply and demand of products or services, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciably different in those area*".[334]

(276) *First*, in order to assess the geographic scope of the OTC IRD clearing market, the Commission assessed the demand-side substitutability between the provision of OTC IRD clearing services in the EEA and beyond the EEA. For the reasons explained below, the results of the market investigation indicate that, from the perspective of the demand, the geographic scope of the market for the provision of OTC IRD clearing services (and its possible sub-segments by type of OTC IRD contract and underlying currency) is largely global.

(277) Firstly, the Commission assessed where the trading desks of customers trading OTC IRDs were located. The results of the market investigation indicate that a majority of customers (approximately 63%) have trading desks located across the world.[335] Regarding the buy-side customers, approximately 56% of them have trading desks located across the world, while 42% of them have trading desks located in the EEA and 3% of them have trading desks located mostly in the EEA (and therefore beyond the EEA in a lesser proportion).[336] Regarding the sell-side customers, approximately 75% of them have trading desks located across the world, while 10% of them have trading desks located in the EEA and 15% of them have trading desks located mostly in the EEA (and therefore beyond the EEA in a lesser proportion).[337] These elements are indicative of the cross-border, and largely international, nature of OTC IRD clearing customers.

(278) Secondly, the Commission assessed where European customers tend to clear their OTC IRD trades.

(279) As a first step, the Commission assessed whether OTC IRD clearing customers rely on CCPs based outside the EEA. The market investigation reveals that customers do clear trades on non-EEA CCPs, which evidences the global nature of OTC IRD clearing. Specifically, a number of customers explain that they rely on the following non-EEA CCPs: (i) Chicago Mercantile Exchange Inc. ("CME"), which is a US-based CCP,[338] (ii) Nasdaq, which is US-based,[339] (iii) JSCC, which is Japan-based,[340]

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334 Commission Notice on the definition of the relevant market, paragraph 8.

335 Question 8.2, Questionnaire 1 to OTC IRD trading and clearing buy-side customers, Doc ID 6470. Question 8.2, Questionnaire 3 to OTC IRD trading and clearing sell-side customers, Doc ID 6474.

336 Question 8.2, Questionnaire 1 to OTC IRD trading and clearing buy-side customers, Doc ID 6470.

337 Question 8.2, Questionnaire 3 to OTC IRD trading and clearing sell-side customers, Doc ID 6474.

338 E.g., BBVA, BNP, UBS, BANK OF MONTREAL, LLOYDS BANKING GROUP PLC, RBC, Royal Bank of Scotland, DANSKE BANK A/S, Société Générale, UniCredit SpA, Crédit Suisse, Citibank, Nomura International, Crédit Agricole Corporate and Investment Bank, Rabobank, Barclays, HSBC, J.P. Morgan, Banco Santander.

339 E.g., DANSKE BANK A/S.

(iv) ASW, which is an Australia-based CCP, [341] (v) Korea Exchange IRS Clearing ("KRX"), which is a Korean-based CCP,[342] (vi) OTC CLEAR HONG KONG LIMITED ("OTC CLEAR"), which is a Korea-based CCP,[343] and (vii) Clearing Corporation of Indian, which is an Indian-based CCP.[344]

(280) As a second step, the Commission assessed whether OTC IRD clearing customers consider that non-EEA CCPs are closely competing with LCH SwapClear. The market investigation reveals that customers do consider that non-EEA CCPs closely compete with LCH SwapClear, which further evidences the global nature of OTC IRD clearing. Indeed, asked who are LCH's SwapClear's closest competitors, 78% of sell-side customers and 41% of buy-side customers named CME, which is a US-based CCP, and a number of customers also named other CCPs, in particular JSCC, which is Japan-based (namely two sell-side customers and three buy-side customers), and OTC Clear, which is Hong-Kong-based (namely one sell-side customer). [345]

(281) As a subsidiary element, the Commission notes that the fact that several market participants explain that they recently considered changing CCP as a contingency measure related to the withdrawal of the United Kingdom from the European Union (EU),[346] does not call into question the global nature of the OTC IRD clearing market.[347] Indeed, the fact that a change in the status of the United Kingdom's membership of the EU triggers such considerations was primarily linked to the legal uncertainties linked to Brexit and the question of whether LCH SwapClear would obtain an equivalence decision. Indeed, from a legal standpoint, EEA customers can clear OTC IRD trades subject to the clearing obligation on non-EEA CCPs provided that these CCPs are recognised in the EEA. Article 4 EMIR, which governs the clearing obligation regarding OTC IRDs, provides that "*The OTC derivative contracts that are subject to the clearing obligation pursuant to paragraph 1 shall be cleared in a CCP authorised under Article 14 or recognised under Article 25 to clear that class of OTC derivatives and listed in the register in accordance with Article 6(2)(b).*"[348] This means that the trades subject to the clearing obligation can be cleared on third-country CCPs if these CCPs are "recognised". On 9 April 2020, CCPs from three foreign countries had been authorised to clear OTC IRDs subject to the clearing obligation, namely United States of America (for CME and ICE), Japan (for JSCC), and Hong Kong (for OTC HK).[349] This last element further confirms the global nature of OTC IRD clearing customers.

(282) *Second*, in order to assess the geographic scope of the OTC IRD clearing market, and its potential sub-segments, the Commission assessed the supply-side substitutability

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340 E.g., Crédit Agricole Corporate and Investment Bank, Société Générale, UBS, Barclays.

341 E.g., UBS.

342 E.g., Crédit Agricole and ING.

343 E.g., Crédit Agricole and Barclays.

344 E.g., Barclays.

345 Question 45, Questionnaire 3 to OTC IRD trading and clearing sell-side customers, Doc ID 6474. See also Question 38, Questionnaire 1 to OTC IRD trading and clearing buy-side customers, Doc ID 6470.

346 Question 40.3, Questionnaire 3 to OTC IRD trading and clearing sell-side customers, Doc ID 6474 (see e.g. response of Bank of Montreal and Banco Santander).See also question 33.1, Questionnaire 1 to OTC IRD trading and clearing buy-side customers, Doc ID 6470 (see e.g. response of Commerzbank, UBS, Danske Bank A/S, Banco Santander, Ilmarinen Mutual Pension Insurance Company).

347 Question 40.3, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

348 EMIR, Article 4, paragraph 3.

349 See https://www.esma.europa.eu/sites/default/files/library/public_register_for_the_clearing_obligation_under_emir.pdf (last accessed on 11 September 2020).

between the provision of OTC IRD clearing services in the EEA and beyond the EEA. For the reasons explained below, the results of the market investigation indicate that, from the perspective of the supply, the geographic scope of the market for the provision of OTC IRD clearing services (and its possible sub-segments by type of OTC IRD contract and underlying currency) is largely global.

(283) Responses of CCP competitors to the market investigation indicate that a sizeable part of competition takes place on a global scale from a supply-side perspective. Indeed, CME, Eurex, and JSCC state that they offer OTC IRD clearing services globally, and that they set prices for OTC IRDs at worldwide level.[350] These three CCPs, together with LCH SwapClear, account for at least [90-100]% of the OTC IRD CCP market.[351] While the Commission notes that some respondents indicate that they offer, and set prices for, OTC IRD CCP clearing services at EEA-wide level (namely CME and NASDAQ) or national level (namely KDPW),[352] the Commission notes that these CCPs are less representative as these are small players, which account for less than [0-5]% of the worldwide supply of OTC IRD. This further confirms that the geographic market for the provision of OTC IRD clearing services is global in scope.

(284) Based on the above and the evidence available to it, the Commission therefore considers that the geographic market for OTC IRD clearing services, and its possible sub-segments by type of contract or currency, is global in scope. However, the Commission concludes that the question of whether the relevant geographic market for the provision of CCP clearing services for OTC IRDs is EEA-wide or worldwide in scope can be ultimately left open given that the Transaction (i) would significantly impede effective competition, due to vertical effects of customer foreclosure and (ii) would not significantly impede effective competition, due to vertical effects of input foreclosure, regardless of whether the geographic market definition is EEA-wide or worldwide.

3.6.1.3. Conclusion

(285) Based on the above and the evidence available to it, the Commission considers that the provision of OTC IRD clearing services constitutes a separate product market, which can be segmented by type of currency and/or OTC IRD contract, and which is likely global in scope (and, in any event, at least EEA-wide). However, the Commission considers that the question whether the market for the provision of OTC IRD clearing services is (i) segmented by type of OTC IRD contract or underlying currency, and/or whether its scope is (ii) EEA-wide or worldwide, can be ultimately left open for the purposes of this Decision because the Commission's conclusions that the Transaction (i) would significantly impede effective competition, due to vertical effects of customer foreclosure in relation to the upstream D2C segment, irrespective of the precise market definition for the provision of clearing services for OTC IRDs downstream and (ii) would not significantly impede effective competition, due to vertical effects of input foreclosure irrespective of the precise market definition for the provision of clearing services for OTC IRDs downstream, would not change regardless of whether the market for the provision of OTC IRD clearing services is (i) segmented by type of OTC IRD contract or underlying currency, and/or whether or not its scope is (ii) EEA-wide or worldwide.

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350 Questions 12 and 23, Questionnaire 2 to CCP competitors, Doc ID 6473.

351 See Table 9 below.

352 Questions 12 and 23, Questionnaire 2 to CCP competitors, Doc ID 6473.

3.6.2. Provision of Clearing Services for Over-the-Counter FX products

3.6.2.1. Relevant product market definition

A. Previous Commission decisions

(286) As explained in recital (243) above, in *Deutsche Börse/London Stock Exchange Group*, the Commission considered that clearing of OTC derivatives formed a separate product market, which should be distinguished by asset class (namely between the clearing of OTC IRDs, OTC credit derivatives, OTC FX derivatives, OTC equity derivatives and OTC commodity derivatives).[353]

B. The Notifying Party's view

(287) The Notifying Party considers that the provision of CCP clearing services for OTC FX products and the bilateral management of risks, borne by the parties to OTC FX trades, form a single and separate product market.[354] In this regard, the Notifying Party underlines that customers trading FX products can choose to either clear their trade via CCPs or to manage the risk bilaterally, as there is no clearing obligation for FX products. However, the Notifying Party considers that the demand for CCP clearing services remains limited, in particular because bilateral risk management is often less onerous and less burdensome.[355] According to the Notifying Party, as market participants are very comfortable to manage counterparty risk using only CLS, a provider of FX settlement services,[356] bilateral risk management is a genuine alternative to CCP clearing services.[357]

(288) Moreover, the Notifying Party submits that the applicability of the case cited above in recital (286) is limited given that it has not considered a potential market for clearing services – or, more appropriately, a market for counterparty risk management – in relation to FX products, while the FX segment has specific market dynamics, including the fact that bilateral management exerts a major constraint on CCP clearing in this segment.[358]

C. The Commission's assessment

(289) On the basis of the market investigation results and the evidence available to it, the Commission considers that the provision of clearing services for OTC FX products should be assessed separately from the provision of clearing services for other instruments. The Commission takes this view for the following reasons.

(290) First, the Commission considers that there are no structural elements which differentiate clearly FX clearing from clearing of other asset classes such as IRDs or

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353 Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 747ff.

354 Form CO, paragraph C.IV.87.

355 See Form CO, paragraph C.IV.88. For instance, to become a member of ForexClear, a customer has to satisfyi stringent minimum acceptance criteria, a due diligence site visit and contributing a minimum of EUR […] to a default fund.

356 See Form CO, paragraph C.IV.32. CLS was launched in 2002 as a result of regulatory concern regarding settlement risk of FX products and is currently a global provider of FX settlement services. The CLS system operates a co-operative oversight arrangement established by various central banks whose currencies are settled in the CLS system in cooperation with the Federal Reserve Bank of New York and offers various settlement solutions for FX products. Over 70 financial institutions and their clients are direct settlement members of CLS, and over 25,000 third-party clients currently use CLS' settlement service.

357 Form CO, paragraph C.IV.87.

358 Form CO, paragraph C.IV.90.

ETPs so as to warrant a wider market of bilateral risk management only in the context of FX products. Indeed, while there are mandatory clearing obligations for some IRD products, this is not the case for ETPs, for which clearing is considered separate from bilateral risk management.

(291) Second, bilateral risk management cannot be considered a service or product in the same way as clearing; it has no explicit 'cost', while central clearing involves clearing fees, margin requirements and other connectivity costs. Indeed, customers of FX clearing note that reducing both risk and capital requirements is the main reason for choosing to clear a trade rather than managing it bilaterally.[359] This suggests that bilateral risk management and clearing services are not considered as substitutes for one another by customers, and that bilateral risk management is rather an out of market alternative.

(292) The market investigation in this case did not provide any evidence casting doubt on the Commission's previous findings that, from a demand-side perspective, customers' demand usually relates to the clearing of individual transactions, in this case of individual cash equities transactions, pointing to the existence of a market limited to CCP clearing of cash equities.

(293) Similarly, the market investigation in this case did not contradict the Commission's previous findings that, in relation to supply-side substitutability, certain elements indicate that the degree of supply-side substitutability between CCP clearing of cash equities and CCP clearing of other asset classes is limited. First, clearing requires specific authorisations per asset class and depends on instrument specific expertise and technology, even if the basic infrastructure would appear to be common across financial instruments. In addition, clearing houses that offer one category of instruments are unlikely to start offering clearing services for another category of instruments within a relatively short time frame and without incurring significant investment costs (including building out workflow, creating or adapting a guarantee fund, devising risk models, purchasing underlying data, adopting or creating new IT systems, establishing connections, etc.). The market investigation also indicated that from a supply-side point of view, due to regulatory approval processes and technological requirements, CCPs active in one asset class need to invest 1-2 years and considerable expense in order to expand into another asset class.[360] In addition, in view of the importance of clearing houses from a systemic risk point of view, launching a new clearing service also (and importantly) requires a detailed regulatory review. Obtaining the necessary approvals for a new clearing service (i.e. for a new asset class) therefore cannot be done swiftly.

Conclusion

(294) Based on the above and the evidence available to it, the Commission considers that the provision of CCP clearing services for FX products constitutes a separate product market, and that no further segmentation is necessary.

3.6.2.2. Relevant geographic market definition

A. Previous Commission decisions

(295) The Commission has not previously assessed the geographic scope of the market for the provision of CCP clearing services for OTC FX products. However, with respect

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359 Question 33, Questionnaire 14 to general trading customers, Doc ID 6464.

360 Question 13, Questionnaire 16 to general clearing competitors, Doc ID 6466.

to the provision of CCP clearing services for other OTC IRDs, another type of OTC derivatives, the Commission previously concluded that the market was at least EEA-wide in scope.[361]

B. The Notifying Party's view

(296) The Notifying Party submits that the appropriate geographic scope of the market for the bilateral risk management of OTC FX trades is global, arguing the following.[362] First, the Notifying Party submits that European CCPs provide clearing services for products outside the EEA and, vice versa, a number of third-country CCPs who received an equivalence can provide clearing services to EU customers. Second, the Notifying Party insists that major financial institutions with a global presence use the same CCP to clear trades executed in different regions and that, as for trading, bilateral risk management for OTC FX products is also conducted on a global basis.

C. The Commission's assessment

(297) On the basis of the market investigation results and the evidence available to it, the Commission considers that, for the purposes of this Decision, the geographic scope of the provision of clearing services for FX productsis at least EEA-wide. The Commission further considers that the question of wether this market could be wider than the EEA, e.g. wordwilde, can be ultimately left open for the purposes of this Decision as the Transaction would not result in a a significant impediment to effective competition due to vertical effects irrespective of such precise geographic scope. The Commission takes this view for the following reasons.

(298) With regard to clearing services in general, as well as for FX clearing in particular, the majority of CCPs that responded to the market investigation indicate that they offer clearing services within the EEA.[363] In addition, while only three CCPs (representing 27% of the respondents) indicate that they offer clearing services at worldwide level, these CCPs set clearing fees at worldwide level.[364] In terms of competition constrains, a small majority of respondents consider that their CCP competitors are active at worldwide level.[365] In addition, customers who responded to the market investigation noted the importance of the EEA regulation for users of CCP clearing services in the EEA (i.e. EEA regulation or EEA-equivalent recognition).[366] As such, considering the demand and supply-side substitutability, the Commission considers that for the purposes of this Decision the geographic scope of the provision of CCP clearing services for OTC FX products is at least EEA-wide, and possibly worldwide, although the precise geographic market definition can be ultimately left open as the Transaction would not result in a a significant impediment to effective competition, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

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361 Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 768.

362 Form CO, paragraphs C.IV.96ff.

363 Question 12 (for clearing services in general) and question 12.1.2 (for FX clearing), Questionnaire 16 to general clearing competitors, Doc ID 6466.

364 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

365 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

366 Question 32, Questionnaire 14 to general trading customers, Doc ID 6464; Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

3.6.2.3. Conclusion

(299) Based on the above and the evidence available to it, the Commission considers for the purposes of this Decision that the provision of CCP clearing services for OTC FX products form a separate market, which is at least EEA-wide.

3.6.3. Provision of Clearing Services for Commodity Derivatives

3.6.3.1. Relevant product market definition

A. Previous Commission decisions

(300) As explained in recital (243) above, in *Deutsche Börse/London Stock Exchange Group*, the Commission considered that clearing of exchange-traded derivatives formed a separate product market, which should be distinguished by asset class (distinguishing between e.g. equity derivatives, IRDs, commodity derivatives, credit derivatives and FX derivatives).[367]

(301) Within commodity derivatives, the Commission has previously considered different categories of commodity derivatives.[368] For example, 'soft' agricultural commodity derivatives have been considered to be distinct from 'hard' commodity derivatives such as energy derivatives. Within these categories, the Commission has considered possible further sub-segmentations by individual commodity (e.g. cocoa, coffee, etc.).[369]

(302) Finally, in previous decisions, the Commission has assessed competition in exchange traded derivatives on markets comprising trading and clearing together (i.e. on a 'bundled' basis).[370]

B. The Notifying Party's view

(303) In line with the Commission's precendents, the Notifying Party considers that there is a distinct product market for the provision of clearing services for exchange-traded commodity derivatives.[371]

(304) The Notifying Party considers that in view of LSEG's CCP's very limited presence in the clearing of commodity derivatives, the question of any further sub-segmentation of the commodity derivatives clearing market by category of commodity derivative or individual physical underlying can be left open.[372]

(305) As regards the question of whether competition takes place on a combined trading/clearing market can be left open given that neither Refinitiv nor Tradeweb offers trading services for exchange-traded commodity derivatives.[373]

C. The Commission's assessment

(306) The Commission's market investigation didn't provide any element indicating that it should depart from its past practice of considering the provision of clearing services

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367 Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 747ff.

368 Commission decision of 24 June 2013 in Case M.6873 - *Intercontinental Exchange / NYSE Euronext*, paragraph 28.

369 Commission decision of 24 June 2013 in Case M.6873 - Intercontinental Exchange / NYSE Euronext, paragraph 31ff.

370 Commission decision of 1 December 2012 in Case M.6166 - Deutsche Börse/NYSE Euronext, paragraphs 242 and 243.

371 RFI 46 reply, paragraph 115.

372 RFI 46 reply, paragraphs 111 and 116.

373 RFI 46 reply, paragraph 116.

for exchange-traded commodity derivatives as a market disting from the provision of clearing services for other categories of financial derivatives.

(307) As regards the questions of whether a potential segmentation by category of commodity derivatives (for instance 'soft' commodities vs 'hard' commodities) or individual commodity would be appropriate and whether it would be more relevant to assess competition at the level of a combined trading/clearing market, the Commission considers that these questions can be left opent for the purposes of this Decision. This is because the Transaction would not result in a a significant impediment to effective competition under any of the plausible product market segmentations, namely regardless of whether the provision of clearing services for exchange-traded commodity derivatives is considered as a single market, or segmented by category of commodity derivatives or individual commodity or whether the competition takes place at the level of a combined trading/clearing market.

3.6.3.2. Relevant geographic market definition

A. Previous Commission decisions

(308) In *Deutsche Börse/London Stock Exchange Group*, the Commission considered that the relevant geographic market for CCP clearing services for exchange-traded commodity derivatives is at least EEA-wide in scope.[374]

B. The Notifying Party's view

(309) The Notifying Party considers that the relevant geographic market for the provision of clearing services for exchange-traded commodity derivatives is at least EEA-wide and likely global in scope.[375]

C. The Commission's assessment

(310) As mentionned above in recital (297), with regard to clearing services in general, including but not limited to FX products, the majority of CCPs that responded to the market investigation indicate that they offer clearing services within the EEA,[376] and consider themselves to be constrained by CCP competitors are active at worldwide level.[377] However, customers who responded to the market investigation noted the importance of the EEA regulation for users of CCP clearing services in the EEA.[378] As such, considering the demand and supply-side substitutability, the Commission considers that for the purposes of this Decision the geographic scope of the provision of CCP clearing services for exchange-traded commodity derivatives, and its possible sub-segments, is at least EEA-wide, and possibly worldwide, although the precise geographic market definition can be ultimately left open as the Transaction does not significantly impede effective competition, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

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374 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 761.

375 RFI 46 reply, paragraph 122.

376 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

377 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

378 Question 32, Questionnaire 14 to general trading customers, Doc ID 6464; Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

3.6.3.3. Conclusion

(311) Based on the above and the evidence available to it, the Commission considers that the provision of clearing services for exchange-traded commodity constitutes a separate product market, which can be segmented by type of commodity or individual commodity, or can be considered at the level of a combined trading/clearing market and which is likely global in scope (and, in any event, at least EEA-wide). However, the Commission considers that the question whether the market for the provision of clearing services for exchange-traded commodity is (i) segmented by type of commodity or individual commodity or (ii) considered at the level of a combined trading/clearing market, and/or whether its scope is (iii) EEA-wide or worldwide, can be ultimately left open for the purposes of this Decision because the Transaction does not significantly impede effective competition, regardless of whether or not the market is (i) segmented by type of commodity or individual commodity or (ii) considered at the level of a combined trading/clearing market, and/or (iii) whether its scope is EEA-wide or worldwide.

3.6.4. Provision of Clearing Services for Credit Default Swaps

3.6.4.1. Relevant product market definition

A. Previous Commission decisions

(312) The Commission has not previously identified a separate relevant market for provision of clearing services for credit default swaps (CDSs).

(313) As mentionned in Section 3.6.1.1 above, the Commission has previously considered a distinction in the clearing of financial derivatives based on underlying asset class (e.g. IRDs, equity derivatives, FX derivatives), execution environment (exchange-traded and OTC), type of customer and type of contract.[379]

(314) With regard to a potential distinction by type of contract, in *Deutsche Börse/NYSE Euronext,* the Commission concluded that swaps do not belong to the same product markets as future and options.[380] The Commission noted that swaps constitutes separate category due to their different characteristics, use and execution environment. Furthermore, the Commission indicated that no clearing-house offered cross-margining between futures and options, on one side, and swaps, on the other side.[381] In *Deutsche Börse/LSEG*, the Commission confirmed its finding that there is a separate product market for swaps.[382]

B. The Notifying Party's view

(315) The Notifying Party agrees that the segmentation of clearing services for derivatives should primarily be based on the underlying asset class.[383]

(316) Taking into account the Commission's previous decision, the Notifying Party provides information on a distinct market for the provision of clearing services for OTC CDS. The Notifying Party submits that further segmentation according to

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379 Commission decision of 1 February 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 444 and Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 748, 750.

380 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraph 443.

381 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraphs 439 and 440.

382 Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 743.

383 Form CO, paragraph C.III.58.

trading channel and trading method is not appropriate give the absence of differentiation between these segments at the clearing level.[384]

(317) Nevertheless, the Notifying Party considers that the Commission does not need to reach a conclusive decision on the relevant market definition, as the Transaction does not give rise to concerns under any plausible definition.[385]

C. The Commission's assessment

(318) Based on the market investigation results and the evidence available to it, the Commission considers that the provision of clearing services for CDS constitute a separate product market.

(319) As mentioned in Section 3.6.1.1 above, the Commission segments the markets for the clearing services for financial derivatives according to the asset class (e.g. IRDs, currency derivatives, commodity derivatives, credit derivatives, and FX derivatives). In particular, the Commission identifies separate market for credit derivatives.[386] The market investigation did not provide any indications that these segmentations are not appropriate.

(320) Furthermore, in line with its precedents and the Notifying Party's view, the Commission considers that a further segmentation based on the contract type is relevant in the context of the clearing of credit derivatives. In particularly, the Commission identifies a separate market for the provision of clearing services for CDS.

(321) The Commission considers that the market should not be further segmented based on the execution environment. The Commission notes that a potential further segmentation of CDS by execution environment would not change the precise market delineation and the Commission's analysis at any rate, since swap contracts are primarily traded in OTC environment. This is consistent with the Commission's findings in *Deutsche Börse/NYSE Euronext*.[387]

3.6.4.2. Relevant geographic market definition

A. Previous Commission decisions

(322) The Commission has not previously considered the geographic market for clearing of CDS.

(323) In Deutsche Börse/LSEG, the Commission concluded that the relevant geographic market for the provision of clearing services for IRDs and single stock equity derivatives is at least EEA-wide in scope.

B. The Notifying Party's view

(324) The Notifying Party does not disagree with the findings in the Commission's precedents. The Notifying Party submits market shares at EEA level. Nevertheless,

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384 Form CO, paragraph C.III.59.

385 Form CO, paragraph C.III.60.

386 See Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 747, footnote 359 – According to the Commission, OTC traded credit derivatives are predominantly in the form of Credit Default Swaps.

387 Commission decision of 29 March 2017 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraphs 439.

the Notifying Party considers that Commission does not need to reach a definitive conclusion on the exact geographic market.[388]

C. The Commission's assessment

(325) Based on the market investigation results and in line with the Notifying Party's arguments and the previous decisions, the Commission considers that the geographic scope of the relevant market is at least EEA-wide. However, the precise geographic market definition can be ultimately left open as the Transaction does not significantly impede effective competition in relation to CDS clearing, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

3.6.4.3. Conclusion

(326) Based on the above and the evidence available to it, the Commission considers that the relevant market is the market for the clearing of CDS, which is at least EEA-wide in scope.

3.6.5. Provision of Clearing Services for Equity Derivatives

3.6.5.1. Relevant product market definition

A. Previous Commission decisions

(327) As mention in Section 3.5.4.1 above, the Commission has in the past assessed competition in exchange traded equity derivatives on potential markets comprising trading and clearing together (i.e. on a 'bundled' basis).[389]

(328) The Commission has previously considered a distinction in the clearing of financial derivatives based on underlying asset class (e.g. IRDs, equity derivatives, FX derivatives), execution environment (exchange-traded and OTC), type of customer and type of contract.[390]

(329) In *Deutsche Börse/NYSE Euronext,* the Commission has identified relevant product markets for trading and clearing of single stock equity derivatives and equity index derivatives.[391]

(330) In *Deutsche Börse/LSEG*, the Commission examined the markets for the provision of trading and clearing services for single stocks equity derivatives on a separate basis, and left open whether a plausible sub-segmentation based on the nationality of the underlying would be relevant. The Commission did not consider other or further sub-segmentations of the market.[392]

B. The Notifying Party's view

(331) The Notifying Party agrees with the segmentation of the market of clearing services for derivatives according to the underlying asset class. In particular, the Notifying Party identifies a separate market for the clearing of equity derivatives. The Notifying Party submits that the assessment of the product market based on a

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388 Form CO, paragraph C.III.65 and C.III.66.

389 Commission decision of 1 December 2012 in Case M.6166 - Deutsche Börse/NYSE Euronext, paragraphs 242 and 243.

390 Commission decision of 1 February 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 444 and Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 748, 750.

391 Commission decision of 29 March 2017 in Case M.6166 – Deutsche Börse/NYSE Euronext, paragraphs 420 and 427.

392 Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 751.

combination of trading and clearing services is based on historic considerations that are no longer relevant nowadays and therefore, the market for the provision of clearing services for equity derivatives should be examined separately.[393]

(332) Contrary to the trading of equity derivatives, the Notifying Party considers that further sub-segmentation between clearing of single stock equity derivatives and clearing of equity index derivatives is not appropriate. The Notifying Party submits that CCPs typically offer clearing services for both single stock and equity index derivatives. According to the Notifying Party, there is no feature that distinguishes one offer from the other.[394]

(333) The Notifying party considers that a distinction based on the execution environment is not relevant at clearing level either. According to the Notifying Party, CCPs are not able to identify whether a given derivative was traded on an RM or OTC. Therefore, the Notifying Party contends that there is no difference between the clearing services provided with respect to exchange traded and OTC derivatives. Nevertheless, in line with the Commission's precedents, the Notifying Party provides market data for all equity derivatives and for a potential market for the clearing of OTC-traded equity derivatives only.[395]

C. The Commission's assessment

(334) Based on the market investigation results and the evidence available to it, the Commission considers that the provision of clearing services for equity derivatives forms a relevant product market, which can be segmented by execution environment (OTC, RM, etc.). However, the precise product market definition can be ultimately left open as the Transaction does not significantly impede effective competition in relation to the clearing of equity derivatives, under any assumption.

3.6.5.2. Relevant geographic market definition

A. Previous Commission decisions

(335) As mentioned in Section 3.5.4.2 above, in *Deutsche Börse/London Stock Exchange Group*, the Commission considered that the relevant geographic market for trading and clearing services for equity derivatives is at least EEA-wide in scope.[396] Similarly, the Commission found that the clearing services for OTC IRDs is at least EEA wide.[397]

B. The Notifying Party's view

(336) The Notifying Party considers that the relevant geographic market is at least EEA-wide.

C. The Commission's assessment

(337) Based on the market investigation results and in line with the Notifying Party's arguments and the previous decisions, the Commission considers that the geographic scope of the relevant market is at least EEA-wide. However, the precise geographic market definition can be ultimately left open as the Transaction does not significantly

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393 Form CO, paragraph C.II.49.
394 Form CO, paragraph C.II.51.
395 Form CO, paragraph C.II.49.
396 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 761.
397 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraph 768.

impede effective competition in relation to the clearing of equity derivatives, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

3.6.5.3. Conclusion

(338) In conclusion, the Commission considers that the provision of clearing services for equity derivatives forms a relevant product market, which can be segmented by execution environment (OTC, RM, etc.) and is at least EEA-wide. However, the precise market definition can be ultimately left open as the Transaction does not significantly impede effective competition in relation to the clearing of equity derivatives, regardless of whether the market is considered EEA-wide or worldwide or segmented according to the execution environment.

3.7. Provision of Trading Services for Cash Equities

3.7.1. Introduction to the trading and clearing of cash equities

(339) Unlike other financial instruments such as bonds or derivatives, cash equities provide to their holders, an ownership right in the company or investment vehicle to which the equity relates (which precise attributes are defined by the issuer, e.g. scope of ownership rights, rights to participate in dividends, rights to vote).

(340) Cash equities can be classified between company-issued equities, exchange traded products ("ETPs"), and structured products. In the present case, the Transaction gives rise to affected markets only with regard to company-issued equities and ETPs. For this reason, only these two types of cash equities are described below.

(341) Company-issued equities are securities issued by a company, which provide to its owner a partial ownership in the issuing company. Subject to what was determined by the issuer, such shares may grant to its owner the right to share in the company's profits through dividend payments, the right to vote in company matters, or the right to have access to certain company information.

(342) ETPs are financial instruments which derive their value from a basket of securities or underlying assets such as stocks (or 'individual entities'), bonds, commodities or indices, and are traded in a similar way to individual stocks and on the same types of venues. ETPs comprise exchange traded funds ("ETFs"), exchange traded commodities ("ETCs") and exchange traded notes ("ETNs"). ETFs are investment vehicles with shares that offer investors a proportionate share in a pool or basket of stocks, bonds, and other assets. ETFs give the purchaser investment exposure to whatever basket of underlying securities or assets that the particular ETF represents.

(343) Once listed on an RM, the listed cash equity can be admitted to trading on a trading venue. Under MiFID I and MiFID II, RMs, MTFs and SIs may admit to trading any cash equity listed on an RM in the EU.

(344) In the present case, upstream, LSEG and Refinitiv are both active in the provision of trading services for cash equities (both ETPs and company-issued stocks) through their venues LSE, Borsa Italiana, Turquoise and Tradeweb. Downstream, LSEG is active in the provision of clearing services for cash equities through its CCPs LCH Ltd, LCH SA and CC&G (and Refinitiv in not active).

3.7.2. Relevant product market definition

3.7.2.1. Previous Commission decisions

(345) The Commission has previously considered the relevant product market for the provision of trading services for cash equities.

(346) In *Deutsche Börse/NYSE Euronext*, the Commission assessed equity trading based on separate product markets according to the type of equity traded and the execution environment.[398] On the one hand, the Commission based its assessment on separate product markets for the following three types of equities: company-issued equities, ETPs,[399] and structured products.[400] Second, the Commission based its assessment on a separate product market for equity trading on regulated markets and MTFs excluding OTC trading, although it ultimately left the question of this sub-segmentation open.[401] In addition, in the same case, *Deutsche Börse/NYSE Euronext*, the Commission considered whether a further segmentation by country of listing may be appropriate, given the 'home-bias' often seen in equity trading, but ultimately left it open whether such a further distinction should be made.[402]

(347) The Commission has so far not considered a possible segmentation of the markets for cash equity (including ETPs) trading by trading channel (D2C versus D2D), trading protocol (RFQ versus order book), and execution method (voice versus electronic).

3.7.2.2. The Notifying Party's view

(348) In the outset, the Notifying Party submits that it is not necessary for the Commission to reach a definite conclusion regarding the precise product market definition for cash equities trading in this case because no competition concerns arise on any plausible basis.[403]

(349) *First*, regarding a possible segmentation by trading venue or execution environment,[404] the Notifying Party notes that, while the Commission's previous findings that MTFs and RMs compete for cash equities trading, while they do not compete with providers of OTC trading services, is consistent with the UK authorities' consideration of the markets pre-MiFID II; under MIFID II, there is no pure OTC trading for shares admitted to trading on an RM or traded on an EEA trading venue because these shares have to be traded on an RM, MTF, SI or a third-country trading venue assessed as equivalent (i.e. are subject to a trading obligation).[405] According to the Notifying Party, this led to a significant shift of OTC trading towards on-exchange trading for cash equities.[406]

(350) *Second*, in line with the Commission's decision in *Deutsche Börse/NYSE Euronext*, the Notifying Party identified limited demand-side and supply-side substitutability between trading services for company-issued equities and trading services for ETPs.[407]

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398 Commission decision of 1 December 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraphs 62ff.

399 In *Deutsche Börse/NYSE Euronext*, the Commission based its competitive assessment for ETPs predominantly on ETFs as ETFs accounted for the vast majority (around 90%) of traded ETPs.

400 Commission decision of 1 December 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 69.

401 Commission decision of 1 December 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 76.

402 Commission decision of 1 December 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 76.

403 Form CO, paragraph A.117.

404 Form CO, paragraphs A.118-121.

405 Form CO, paragraph A.118.

406 Form CO, paragraph A.118.

407 Form CO, paragraphs A.132-136.

(351) *Third*, regarding a potential segmentation by trading protocol, the Notifying Party considers that, while this segmentation may be plausible in theory, it would not neatly align with the regulatory characterization of venues, as most RMs offer RFQ protocols, some RMs offer order book protocols, and MTFs can offer on and off-order book protocols.[408] The Notifying Party also notes the order book in anonymous and may not be the preferred option of a customer looking to execute a trade with a known counterparty or a large trade with a higher degree of execution certainty, as such a customer would prefer trading via RFQs or SIs.[409]

(352) In addition, the Notifying Party does not consider that separate markets exist for RFQ-based trading of ETPs and company-issued equities for the following reasons. First, the Notifying Party considers that market participants use the wide range of trading options (e.g. CLOB on RMs and bilateral RFQs) to comply with their best execution obligations, and submits that market participant's decision as to where and how to trade is based on a number of factors, so there are no particular types of trade that would always be executed via RFQ. Further, the Notifying Party argues that it would be artificial to segment a market for RFQ-based trading without also including at least the volumes that flow through SIs directly as it considers these to be the competitive constraint on MTFs providing RFQ protocols.[410]

(353) Lastly, regarding a potential segmentation by country of listing, the Notifying Party considers that ETPs are very often listed on several exchanges in parallel, and that it is estimated that 70% of European ETPs are listed on two or more stock exchanges.[411] According to the Notifying Party, retail and small and mid-cap investors are generally biased towards their domestic market, whereas large corporates and sophisticated institutional investors generally follow liquidity and are therefore much more likely to engage in cross-border trading.[412]

3.7.2.3. The Commission's assessment

(354) At the outset, on the basis of the market investigation results and the evidence available to it, the Commission considers that the provision of trading services for cash equities constitutes a separate product market from the trading of other financial instruments, which is segmented by type of equity, therefore distinguishing the provision of trading services for ETPs from the provision of trading services for company-issued stocks. The market investigation has provided no elements to depart from precedents regarding the segmentation between ETPs, company-issued stock and structured products. The results of the market investigation did not provide any evidence casting doubt on the Commission's previous findings that the different types of cash equities may not be substitutable from a demand-side perspective and differ in terms of risk profile, the legal ownership profile, the regulatory and the tax regimes, the intra-day liquidity and the counterparty risks.

(355) With regard to ETP trading, the results of the market investigation suggest that the market may be segmented by execution environment (i.e. between RMs and MTFs vs OTC trading) and trading protocol (i.e. RFQ vs order book). The Commission takes this view for the following reasons.

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408 Form CO, paragraph A.122.
409 Form CO, paragraph A.123.
410 Form CO, paragraphs A.122-128
411 Form CO, paragraph A.144.
412 Form CO, paragraphs A.142-143.

(356) *Firstly*, regarding a potential segmentation between trading on regulated venues (RMs and MTFs) vs OTC trading (i.e. on SIs), the market investigation indicates that SI trading competes to a certain extent with RMs and MTFs so this segmentation may not be appropriate.[413] However, this point can be left open as the Transaction would not result in a a significant impediment to effective competition regardless of the precise market delineation.

(357) *Secondly*, regarding a potential segmentation by trading protocol, the Commission notes that the large majority of customers (namely 75%) consider that venues offering electronic order book protocol and venues offering RFQ protocol compete with each other.[414] Moreover, for instance, one customer, Investment Funds Direct Ltd, notes that "*Market makers quoting on RFQ are often the same as [those] who are quoting on the electronic order book*."[415] However, the Commission notes that several customers indicate that that the RFQ protocol is often used when trading larger sizes while the order book protocol is often used for smaller size trades.[416] As summarised by a customer, Instinet Europe Limited, it results from the market investigation that, "*Whilst* [RFQ and order books] *do compete, they are not like for like alternatives*".[417] In addition, several customers indicate that they exclusively trade ETFs via RFQ platforms.[418] The Commission considers that this question can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition regardless of the precise market delineation.

(358) In the same vein, the Commission notes that the large majority of customers (namely 79%) consider that venues offering RFQ protocol compete with SIs.[419]. However, some customers see important differences between RFQ and SI trading. For instance, Société Générale considers that "*Trading venues offer better competition between market makers whereas systematic internalizer allows to propose prices from only one market maker. On the systematic internalizer, the client will depend on one price whereas on a trading venue, competition will determine the price*". [420] In addition, several customers indicate that they exclusively trade ETFs via RFQ platforms.[421] The Commission however considers that this question can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition regardless of this precise market delineation in this respect.

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413 Question 10, Questionnaire 14 to general trading customers, Doc ID 6464; Question 21, Questionnaire 15 to general trading competitors, Doc ID 6465.

414 Question 9, Questionnaire 14 to general trading customers, Doc ID 6464. Asked whether ETF trading venues offering an electronic order book protocol compete with venues offering a request-for-quote (RFQ) protocol, 46% of customers answered "yes", and 29% answered "yes, to a limited extend", while only 5% answered "no".

415 Question 9, Questionnaire 14 to general trading customers, response of Investment Funds Direct Ltd, Doc ID 6464.

416 Question 9, Questionnaire 14 to general trading customers, Doc ID 6464.

417 Question 9.1, Questionnaire 14 to general trading customers, response of Instinet Europe Limited, Doc ID 6464.

418 Question 9.1, Questionnaire 14 to general trading customers, Doc ID 6464.

419 Question 10, Questionnaire 14 to general trading customers, Doc ID 6464. Asked whether ETF trading venues offering a request-for-quote (RFQ) protocol compete with systematic internalizers, 54% of customers answered "yes", and 25% answered "yes, to a limited extend", while only 10% answered "no".

420 Question 9.1, Questionnaire 14 to general trading customers, response of Société Générale, Doc ID 6464.

421 Question 10.1, Questionnaire 14 to general trading customers, response of Instinet Europe Limited, Doc ID 6464.

(359) In addition, while the market investigation did not evidence whether ETP trading should be segmented between (i) off-order book[422] and on-order book trading, or between (ii) voice and electronic trading. The Commission however considers that this question can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition regardless of this precise market delineation.

(360) *Fourthly*, regarding a potential segmentation by country of listing, the market investigation suggests that large banks (i.e. sell-side) tend to trade ETPs on RMs where they are listed and have algorithms to select the best price in case of multiple listings. However, banks respond that for their buy-side client trades they are subject to the clients' requests, and this business often comes through pan-European RFQ platforms like Bloomberg and Tradeweb.[423] As such, the Commission does not find clear evidence in support of the relevance of a potential segmentation by country of listing. The Commission notes that these findings are consistent with the Commission's conclusions in *Deutsche Börse/NYSE Euronext*.[424] As a result, the Commission considers that a potential segmentation by country of listing is not relevant.[425]

(361) *Fifthly*, while the market investigation did not evidence that the market for ETP trading should be further sub-segmented by trading channel (D2C versus D2D), or whether it should be segmented by execution environment (voice versus electronic).

(362) With regard to company-issued stocks, the Commission notes that the question of the precise market definition, in particular of whether the trading of company-issued stocks should be further segmented by execution environment (between exchange-traded and OTC), execution method (voice versus electronic), trading protocol (on-order versus off-order books or RFQ versus CLOB) can be left open for the purposes of this Decision as the Transaction does not significantly impede effective competition under any of these narrower market delineations.

Conclusion

(363) Based on the above and the evidence available to it, the Commission considers that for the purposes of this Decision the provision of trading services for company-issued stock, on the one hand, and for ETPs, on the other hand, constitute two separate product markets, which are potentially segmented by execution environment (i.e. RMs and MTFs vs OTC trading), trading protocol (RFQ vs order book or on-order vs off-order) and execution method (voice versus electronic).

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422 In this context, on-order book refers to voice (includes IM, text, e-mail and phone), bilateral electronic platform (e.g. an SI), RFQ or request for stream (RFS).

423 Question 12, Questionnaire 14 to general trading customers, Doc ID 6464.

424 See Commission decision of 1 December 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 76: *"there are strong indications that the relevant market encompasses not only the trading of ETFs with a primary listing in one particular Member State but also the trading of ETFs with other primary listing locations. Ultimately, however, the exact product market definition can be left open since no competition problems arise under any of the alternatives.*"

425 In addition, the Commission notes that Tradeweb's UK and Italian ETF volumes make up [a significant percentage] of its aggregate EEA volumes. Considering that LSE and Borsa Italiana respectively have fully UK and Italian ETF listings, the Parties' combined market shares in potential UK and Italian ETF segments would be expected to be higher than their shares in the aggregate EEA market.

3.7.3. Relevant geographic market definition

3.7.3.1. Previous Commission decisions

(364) The Commission has previously considered the geographic scope of cash equities trading in *Deutsche Börse/NYSE Euronext*.[426] In this decision, the Commission considered that equities trading markets could be EEA-wide but that, in the case of ETFs, there are strong indications for the existence of national markets, although it ultimately left open the precise geographic market definition of ETFs.[427]

3.7.3.2. The Notifying Party's view

(365) The Notifying Party considers that the geographic market definition for company-issued equities trading and for ETP trading is EEA-wide.[428] This is because (i) equities can be traded on any trading venue located in the EEA since the introduction of MiFID I that introduced a separation between listing and trading and (ii) there are no barriers to providing trading services company-issued equities within the EEA, nor are there any barriers to accessing trading venues across borders within the EEA.[429]

(366) Regarding ETPs, the Notifying Party considers the market has become EEA-wide given that (i) institutional investors, who make up the vast proportion of ETP trading in the EEA, are not subject to any 'home bias' and – as evidenced by industry data – can, and do, trade very easily in different currencies and across venues and (ii) the introduction of significant regulatory changes has made it even easier for market participants to trade, clear and settle securities cross-border in the EEA and represents a material change in the overall ETP trading landscape compared to the market structure at the time of the *Deutsche Börse/NYSE Euronext* decision.[430] In addition, the Notifying Party submits that recent market developments have reduced the costs of cross-border trades for customers, in particular the establishment and growth of international central securities depositories (ICSDs), such as Euroclear, Clearstream and SIX SIS, which have obviated the need for ETFs to be available for trading in multiple countries[431]

3.7.3.3. The Commission's assessment

(367) The market investigation confirms the Notifying Party's view that cash equities trading is at least EEA-wide. Indeed, the majority of customers trade on world-wide venues[432] and have their trading desks often located across the EEA or in certain countries in the EEA.[433] In addition, the majority of trading venues are active and set

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426 Commission decision of 1 December 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 458 and Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 762.

427 Commission decision of 1 December 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 458 and Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 762.

428 Form CO, paragraphs A.163ff and A.165ff.

429 Form CO, paragraph A.163.

430 Form CO, paragraph A.165ff

431 Form CO, paragraph A.175. According to the Notifying Party, As of April 2018, approximately 40% (by value) of European ETFs were in the ICSD model.

432 Question 8.1, Questionnaire 14 to general trading customers, Doc ID 6464.

433 Question 8.2, Questionnaire 14 to general trading customers, Doc ID 6464.

their fees at a global level, and indicate that their customers are located only or mostly in the EEA.[434]

(368) In addition, both the Parties' venues and their closest competitors offer pan-European ETP trading services. This is also the case for the Parties' rival ETP trading platforms, such as Bloomberg, Deutsche Börse, Euronext, SIX Swiss Exchange, RFQHub and the SIs.

(369) The Commission also notes that, as indicated by the Notifying Party, there are no material barriers for trading venues to provide trading services for ETPs and company-issued equities within the EEA. The Commission further notes that the recent market developments linked to the introduction and growth of ICSDs have unlocked some national barriers for customers. Therefore, considering the demand and supply-side substitutability and lack of regulatory barriers, the Commission considers that the geographic scope of the relevant market is EEA-wide for the purposes of this Decision.

3.7.4. Conclusion

(370) Based on the above and the evidence available to it, the Commission considers that for the purposes of this Decision the provision of trading services for company-issued stock, on the one hand, and for ETPs, on the other hand, constitute two separate product markets, which are EEA-wide in scope, which are potentially segmented by execution environment (i.e. RMs and MTFs vs OTC trading), trading protocol (RFQ vs order book or on-order vs off-order) and execution method (voice versus electronic).

3.8. Provision of Clearing Services for Cash Equities

3.8.1. Relevant product market definition

3.8.1.1. Previous Commission decisions

(371) In *Deutsche Börse/NYSE Euronext*, the Commission raised the possibility of a separate market for the provision of cash clearing services to third-party trading venues and venues as distinct from clearing services being considered as part of the overall service provided by a particular exchange, but ultimately left open the market definition.[435] In the Commission's latest decision on cash equities trading markets, *Deutsche Börse/London Stock Exchange Group,* the Commission did not conclude on the market definition for the clearing of cash equities, but it did conclude that CCP clearing of cash bonds should be considered separately from CCP clearing of other asset classes.[436]

3.8.1.2. The Notifying Party's view

(372) The Notifying Party considers that the Commission's reasoning in *Deutsche Börse/London Stock Exchange Group* in relation to cash bonds applies analogously to the clearing of cash equity products, and that therefore the relevant market to consider is the standalone market for the CCP clearing services of cash equity products.[437]

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434 Question 11, Questionnaire 14 to general trading customers, Doc ID 6464.

435 Commission decision of 1 December 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 88.

436 Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraph 152.

437 Form CO, paragraph A.147.

(373) The Notifying Party further submits that it is not necessary to further segment the clearing of cash equities trades into separate markets for the clearing of single-stock equities and clearing of ETPs in the EEA, because CCPs offering clearing services for the former offer similar services for the latter and vice versa – there is no particular feature that distinguishes the clearing of single-stock equities and ETPs.[438]

3.8.1.3. The Commission's assessment

(374) On the basis of the market investigation results and the evidence available to it, the Commission considers that, for the purposes of this Decision, the provision of clearing services for cash equities form a separate product market. The Commission takes this view for the following reasons.

(375) *First*, the Commission considers that CCP clearing of cash equities should be analysed separately from CCP clearing of other asset classes such as cash bonds.[439]

(376) The market investigation in this case did not provide any evidence casting doubt on the Commission's previous findings that, from a demand-side perspective, customers' demand usually relates to the clearing of individual transactions, in this case of individual cash equities transactions, pointing to the existence of a market limited to CCP clearing of cash equities.

(377) Similarly, the market investigation in this case did not contradict the Commission's previous findings that, in relation to supply-side substitutability, certain elements indicate that the degree of supply-side substitutability between CCP clearing of cash equities and CCP clearing of other asset classes is limited. First, clearing requires specific authorisations per asset class and depends on instrument specific expertise and technology, even if the basic infrastructure would appear to be common across financial instruments. In addition, clearing houses that offer one category of instruments are unlikely to start offering clearing services for another category of instruments within a relatively short time frame and without incurring significant investment costs (including building out workflow, creating or adapting a guarantee fund, devising risk models, purchasing underlying data, adopting or creating new IT systems, establishing connections, etc.). The market investigation also indicated that from a supply-side point of view, due to regulatory approval processes and technological requirements, CCPs active in one asset class need to invest 1-2 years and considerable expense in order to expand into another asset class.[440] In addition, in view of the importance of clearing houses from a systemic risk point of view, launching a new clearing service also (and importantly) requires a detailed regulatory review. Obtaining the necessary approvals for a new clearing service (i.e. for a new asset class) therefore cannot be done swiftly.

(378) *Second*, the market investigation suggests that, as argued by the Notifying Party, the market for the provision of clearing services for cash equities need not be further segmented into single-stock equity clearing and ETP clearing. For instance, CCPs' fees for ETP clearing are often the same or similar to their fees for single-stock

438 Form CO, paragraphs A.148ff.

439 See also, regarding a separate product market for the clearing of cash bonds, Commission decision of 29 March 2017 in Case M.7995 - *Deutsche Börse/London Stock Exchange Group*, paragraphs 145ff, and Case COMP/M.6166 – DBAG / NYSE Euronext, paragraph 89.

440 Question 13, Questionnaire 16 to general clearing competitors, Doc ID 6466.

equity clearing and some clearing competitors are not able to distinguish between their single-stock equity and ETP clearing volumes.[441]

Conclusion

(379) Based on the above and the evidence available to it, the Commission considers that the provision of CCP clearing services for cash equities forms a separate product market.

3.8.2. Relevant geographic market definition

3.8.2.1. Previous Commission decisions

(380) The Commission previously considered the geographic scope of the market for the provision of clearing services for cash equities in *Deutsche Börse/NYSE Euronext*.[442] In this case, while the Commission considered that CCP clearing services for cash equities could be EEA-wide, the Commission ultimately left the exact geographic definition can be left open.[443]

3.8.2.2. The Notifying Party's view

(381) As regards the geographic scope of the market for cash equities clearing services, the Notifying Party submits that this market is at least EEA-wide, given that the same clearing services are provided to customers across the EEA (or even beyond) regardless of the customer's location, and often in combination with trading services from venues in countries other than where the CCP is located.[444]

3.8.2.3. The Commission's assessment

(382) On the basis of the market investigation results and the evidence available to it, the Commission considers that, for the purposes of this Decision, the geographic scope of the market for provision of clearing services for cash equities is at least EEA-wide, and possibly worldwide, although the question of the geographic scope of this market can be ultimately left open as the Transaction does not significantly impede effective competition regardless of whether such market is EEA-wide or global in scope. The Commission takes this view for the following reasons.

(383) First, from the perspective of customers, the results of the market investigation indicate that, with regard to ETFs, the majority of customers consider that the geographic location of the CCP is not important for them when choosing a CCP.[445] It results from the feedback of market participants that, while the geographic location of a CCP is not an important factor, the rules that the CCP comply with are an important factor.[446] For instance, AXA Investment Managers, a customer, explains that "*We have to ensure that the CCPs we clear on are compatible with the relevant regulation we have to adhere to*".[447] More generally, a number of customers who responded to the market investigation noted the importance of the EEA regulation for users of CCP clearing services in the EEA (i.e. EEA regulation or EEA-equivalent

441 Question 21, Questionnaire 16 to general clearing competitors, Doc ID 6466.
442 Commission decision of 1 December 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 90.
443 Commission decision of 1 December 2012 in Case M.6166 - *Deutsche Börse/NYSE Euronext*, paragraph 90.
444 Form CO, paragraph A.183.
445 Question 12, Questionnaire 14 to general trading customers, Doc ID 6464.
446 Question 12, Questionnaire 14 to general trading customers, Doc ID 6464.
447 Question 12, Questionnaire 14 to general trading customers, response of AXA Investment Managers, Doc ID 6464.

recognition), as illustrated by the concerns raised by the consequence of Brexit in the absence of equivalence of UK CCPs.[448]

(384) In addition, from the perspective of the supply, the majority of CCPs that responded to the market investigation indicate that they offer clearing services, including but not limited to cash equities products, and for ETF clearing in particular, within the EEA.[449] However, three CCPs that responded to the market investigation (representing 27% of the respondents) explain that they offer such clearing services and set their clearing fees at worldwide level,[450] and, in terms of competition constrains, a majority of respondents consider that their CCP competitors are active at worldwide level.[451]

(385) With regard to clearing services specifically for cash equities, the Commission notes that LCH, LSEG's entity active in clearing, offers its clearing services to trading venues across the EEA and Switzerland.[452] Similarly, EuroCCP, which is the largest European clearing house that is headquartered and regulated in the Netherlands), clears trades executed on 36 trading venues across 18 European countries.[453]

(386) As such, considering the demand and supply-side substitutability, the Commission considers that for the purposes of this Decision the geographic scope of the provision of CCP clearing services for cash equities products is likely EEA-wide, although the precise geographic market definition (including whether the geographic scope of this market should be EEA-wide or worldwide) can be ultimately left open as the Transaction does not significantly impede effective competition, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

3.8.3. Conclusion

(387) Based on the above and the evidence available to it, the Commission considers that for the purposes of this Decision the provision of clearing services for cash equities forms a separate product market which is at least EEA-wide in scope. The Commission considers that the precise goegraphic market definition can be ultimately left open for the purposes of this Decision as the Transaction does not significantly impede effective competition, regardless of whether the relevant market is defined as EEA-wide or worldwide in scope.

3.9. Consolidated Real-Time Datafeeds

(388) A real-time datafeed is a virtual pipeline that supplies continually updated financial market information. Real-time datafeeds can be used as inputs for applications developed by banks and financial institutions, for example to allow for electronic or automatised algorithmic trading.[454]

(389) There are two types of real-time datafeeds: consolidated and direct. Consolidated real-time datafeeds ("CRTDs") require the aggregation of feeds from various sources

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448 Question 16, Questionnaire 14 to general trading customers, Doc ID 6464; Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

449 Question 16, Questionnaire 16 to general clearing competitors, Doc ID 6466.

450 Question 12 (for clearing services in general) and question 12.1.1 (for ETF clearing), Questionnaire 16 to general clearing competitors, Doc ID 6466.

451 Question 12, Questionnaire 16 to general clearing competitors, Doc ID 6466.

452 See https://www.lch.com/services/equityclear/equityclear-ltd/what-we-clear, last accessed on 13 November 2020.

453 Form CO, paragraph A.184.

454 Commission decision of 20 July 2018, Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 23.

including exchanges into a single source. The CRTD is then delivered to the end-customer. Direct real-time datafeeds connect an individual exchange with the end-customer.

(390) Refinitiv's main CRTD, Elektron Real-Time, consists of a combination of raw and derived content. Elektron Real-Time delivers low latency real-time datafeeds from exchange-traded and OTC markets and trade publication services. In combination with Elektron Real-Time, Refinitiv provides analytics and a distribution platform to support financial workflow applications, together marketed as the Elektron Data Platform. LSEG does not offer a CRTD.

(391) Each of the Parties offer direct real-time datafeeds for their respective venue data.

3.9.1. Relevant product market definition

3.9.1.1. Previous Commission decisions

(392) As mentioned in recital (389) above, real-time datafeeds can be classified in two categories: consolidated and direct. In *Reuters Instrument Codes*, the Commission found that CRTDs and direct real-time datafeeds belong to different product markets.[455] In the same case, the Commission found that CRTDs do not compete with desktop services.[456]

3.9.1.2. The Notifying Party's view

(393) Taking into account market practice and industry dynamics, the Notifying Party submits that there is a separate market for CRTDs, distinct from other markets of non-real-time datafeeds and desktop services.[457]

(394) The Notifying Party recalls that Refinitiv's CRTDs consist almost entirely of trading data (i.e., real-time pricing and other trade-related data) from a range of different sources, including trading venues and market participants. In addition, Refinitiv's CRTDs provide a very limited amount of other types of data (for example, real-time index data and identifying codes) on a complementary, ancillary basis only. This is consistent with the practices of other CRTD providers, which primarily provide trading data from a range of different sources, including trading venues and market participants.[458] Accordingly, the Notifying Party does not consider it appropriate or meaningful to distinguish between separate markets for CRTDs carrying only consolidated real-time trading data and separate markets for CRTDs carrying also other real-time content sets (e.g. real-time index data) for the purpose of assessing the competitive impact of the Transaction. Rather, according to the Notifying Party, Refinitiv competes in a single market for the supply of CRTDs. Regarding direct datafeeds (i.e. non-consolidated feeds from venue data providers), the Notifying Party simply submits that the most appropriate framework to analyse the competitive dynamics is by reference to packaged solutions (i.e. CRTDs).[459]

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455 Commission decision of 20 December 2012 in Case AT.39654, *Reuters Instrument Codes*, paragraph 29.

456 Commission decision of 20 December 2012 in Case AT.39654, *Reuters Instrument Codes*, paragraph 30. In *Blackstone/Thomson Reuters F&R Business*, the Commission discussed the relevant market for CRTDs but eventually left open the precise market delineation (Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraphs 23ff).

457 Form CO, Information Services, paragraph D.330 and Annex 201.

458 Form CO, Annex 201, paragraph 1.

459 Form CO, Information Services, footnote 307.

3.9.1.3. The Commission's assessment

(395) On the basis of the market investigation results and the evidence available to it, the Commission considers that CRTDs constitute a relevant market, which is separate from direct feeds and desktop services. The Commission takes this view for the following reasons.

(396) *First*, there are significant differences between CRTDs and (non-consolidated) direct real-time datafeeds:[460]

(a) CRTDs have higher latency (they are slower in their delivery of information to users);

(b) CRTDs are "cleansed" and normalised before being offered to the end-customer, which is not the case for direct real-time datafeeds;[461]

(c) Replacing a CRTD by an aggregate of direct real-time datafeeds is technically very complex and not economically viable for customers; and

(d) The data coverage of CRTDs and direct real-time datafeeds does not fully overlap. Certain data is only available through CRTDs (for example OTC data).

(397) The market investigation results confirm the lack of substitutability between CRTDs and direct real-time datafeeds. The majority of end-customer respondents state that CRTDs and direct real-time feeds are not substitutable.[462] The majority of end-customer respondents also recall that they have never switched from a consolidated to a direct real-time datafeed.[463] Several data vendor respondents state that it would not be technically feasible for end-customers to replace a CRTD with several direct real-time datafeeds.[464] In any event, according to data vendor DTN, this "*is not economically feasible for all but the largest players*."[465] Another data vendor, IRESS, confirms: "*as the number of feeds increase and the geographic location expands, the cost to source, distribute, develop & maintain feed handler software is beyond the means and experience of nearly all customers*".[466]

(398) *Second*, there is also a significant difference between CRTDs and desktop services. A desktop service delivers financial data for viewing by humans on a screen. For example, a trader uses a desktop service to view financial data on a terminal screen just before executing a trade. CRTDs, by contrast, allow data to be used for any purpose, including by applications without human intervention or viewing. For example, a CRTD can be used as an input for automated or algorithmic trading.[467]

(399) The market investigation results support the lack of substitutability between CRTDs and desktop services. The majority of data vendor respondents take the view that

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460 See Greenwich Associates Report, "Consolidated Market Data Feeds Thrive Despite Rising Data Fees", 2018, page 2, provided as Annex 2.1 to RFI 16 reply.

461 As one customer put it, "*Consolidated data feeds offer a level of data cleansing and checking and as such can identify when there are anomalies in the data or spikes in the market and send out alerts to consumers. Direct feeds do not offer the same level of service*". See Question 23, Questionnaire 9 to information services end-customers, Doc ID 6480.

462 Question 23.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

463 Question 23.2, Questionnaire 9 to information services end-customers, Doc ID 6480.

464 Question 46, Questionnaire 9 to information services end-customers, Doc ID 6480.

465 Question 46, Questionnaire 8 to data vendors, Doc ID 6479.

466 Question 46, Questionnaire 8 to data vendors, Doc ID 6479.

467 Form CO, paragraph D.172.

real-time data delivered through a desktop solution cannot replace a CRTD.[468] The vast majority of end-customer respondents agree.[469] End-customers emphasised that desktop services and CRTDs have different purposes altogether. End-customer UniCredit S.p.A. states: "[w]*hereas the desktop solutions serve individual demands, consolidated data feeds are needed for the major IT applications, by technical and licensing reasons*".[470] End-customer BNP Paribas adds that it "*is not possible to feed an application from a desktop [solution], as vendors are selling feed on enterprise wide licensing basis... desktop is [restricted] to users. It is therefore forbidden by [the] vendor to use the terminal as a consolidated real-time datafeed to feed applications*".[471]

(400) Finally, in line with the Notifying Party's submission, nothing in the market investigation or in Refinitiv internal documents suggested that separate relevant markets exist for CRTDs only covering consolidated real-time trading data and for CRTDs covering other real-time content sets (i.e. real-time datasets of a reduced category of instruments, such as real-time index data).[472]

3.9.2. Relevant geographic market definition

3.9.2.1. Previous Commission decisions

(401) In *Reuters Instrument Codes*, the Commission found that the relevant market for CRTDs is worldwide in scope.[473]

3.9.2.2. The Notifying Party's view

(402) The Notifying Party submits that the market for CRTDs is worldwide in scope.[474]

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468 Question 45, Questionnaire 8 to data vendors, Doc ID 6479.

469 Question 22, Questionnaire 9 to information services end-customers, Doc ID 6480.

470 Question 22.2, Questionnaire 9 to information services end-customers, Doc ID 6480.

471 Question 22.2, Questionnaire 9 to information services end-customers, Doc ID 6480.

472 In its Observations on the SO, data vendor McKay notes that by referring only to CRTDs, "*the market definition of real time datafeeds is incomplete*" (McKay's Observations to the SO, Doc ID 7046, page 2). According to McKay, there is a "*standalone*" market for ultra-low latency real-time datafeeds ("ULLRTDF") concerning venue data from a specific trading venue delivered to data centres outside the data centre where the trading venue is located (McKay's Observations to the SO, Doc ID 7046, page 2). As McKay puts it, competition takes place separately "*to deliver each data set to each relevant away data center*" (McKay's Observations to the SO, Doc ID 7046, page 2). However, in an earlier submission, McKay also took the view that ULLRTDF compete with Refinitiv's Elektron, suggesting that ULLRTDF form part of a broader relevant market for CRTDs ("Third-party submission of the McKay Group on LSEG Refinitiv case M-9564", Doc ID 5855, Sections II.A and II.B). The Commission's market investigation did not provide clear indications as to whether ULLRTDFs constitute a separate relevant market or whether they are part of the CRTD market. In any event, this question can be left open. If the ULLRTDFs are defined as a standalone relevant product market and LSE venue data is an upstream input for that market, the proposed Transaction does not give rise to merger specific competition concerns (for the reasons explained in fn. 972 below). If the ULLRTDFs were considered a segment of the broader market for CRTDs, ULLRTDF providers compete only remotely with Refinitiv's CRTD (which has higher latency) and thus the proposed Transaction would only impact ULLRTDF rivals to a limited extent. Moreover, the Information Services Commitments addressing competition concerns in the market for CRTDs would also remove concerns regarding ULLRTDFs.

473 Commission decision of 20 December 2012 in Case AT.39654, *Reuters Instrument Codes*, paragraphs 28ff. See also Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraphs 23-25.

474 Form CO, paragraph D.323 which refers to "*other financial information products*".

3.9.2.3. The Commission's assessment

(403) On the basis of the market investigation results and the evidence available to it, the Commission considers that the geographic scope of the relevant market is global.

(404) The Commission takes this view for the following reasons. During the market investigation, the vast majority of end-customer respondents of CRTDs and data vendor respondents confirm that the geographic scope of the relevant market is global. CRTDs are licensed by customers worldwide. Data vendors typically commercialise the same CRTDs at global level. They also set their prices at global level.[475]

3.9.3. Conclusion

(405) Based on the above and the evidence available to it, the Commission considers that there is a separate relevant market for CRTDs (excluding desktop services and direct real-time datafeeds) and that this market is worldwide in scope.

3.10. Desktop Services

(406) Desktop services enable individual users to access content including real-time and non-real-time financial data, news and analytics spanning asset classes and geographies via a software container offering a "front end" solution. The positioning and appearance of data in a desktop service is determined by the desktop service provider. A desktop service interface is aimed to be viewed by humans on a screen. Datafeeds are different from desktop services. They do not deliver data that are meant to be directly viewed by humans. Rather, datafeeds deliver data in "raw" format, from which customers can build their own internal applications or portals.[476]

(407) In addition to displaying financial data for users, desktop services often include decision support tools,[477] workflow tools,[478] and instant messaging capabilities. Desktop services sometimes offer access to trading capabilities and venues. Desktop services can take the form of either a web-delivered solution or a deployed/physical solution. Desktop services can be accessed through a PC or a mobile device.

(408) Desktop services comprise comprehensive and fully integrated desktops (premium products), or more tailored desktops with targeted content sets. In both cases, these can be referred to as "workstations" or "terminals". Content and capabilities are licensed to end customers as part of the desktop service subscription (for premium products) or as "add-ons" to an existing desktop service subscription (for more tailored desktops).

(409) Desktop services cater to different customer needs. Such needs vary significantly, for example, between (i) on-trading floor customers (e.g., traders)[479] who use desktop services to inform trading decisions in real-time and (ii) off-trading floor customers (e.g., asset managers)[480] who use desktop services to provide advisory and investment services to institutional investors (e.g., pension funds). While the

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475 Question 25, Questionnaire 9 to information services end-customers, Doc ID 6480; and question 49, Questionnaire 8 to data vendors, Doc ID 6479.

476 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 26. Regarding the differences between CRTDs and desktop services, see also recitals (398)ff above.

477 E.g. tools for risk analytics, portfolio analytics, market monitoring and idea generation applications.

478 E.g. Microsoft Excel integration and innovative charting capabilities.

479 On-trading floor users are those involved in the sales and trading of financial instruments and trade execution.

480 Off-trading floor users are those involved in research, providing advice and asset management.

principal desktop underlying all the desktop versions offered may be the same, its content is sometimes tailored by customer segment.

(410) Refinitiv's flagship desktop services product is Eikon – soon to be renamed Refinitiv Workspace. Eikon is available in its full, comprehensive version ("Eikon Premium") but also in other variants which include more limited content and functionalities.

(411) LSEG offers a "packaged solution" for desktop services, which can be accessed via a desktop interface, through its affiliate company Mergent. According to the Notifying Party, Mergent's desktop solution has a niche use case and is not a comprehensive solution similar to Refinitiv's.[481]

3.10.1. Relevant product market definition

3.10.1.1. Previous Commission decisions

(412) In *Blackstone/Thomson Reuters F&R Business*, the Commission discussed a plausible market for desktop services, which would be separate from CRTDs, non-real-time datafeeds, and discrete content datasets. The relevant product market definition was eventually left open.[482]

3.10.1.2. The Notifying Party's view

(413) The Notifying Party submits that there is a relevant product market for desktop services, which is separate from non-real-time datafeeds and CRTDs.[483] The Notifying Party includes in this market only "*comprehensive*" packaged desktop solutions.[484] Comprehensive solutions combine different types of financial information products and package them with additional functionality and/or workflow tools. The comprehensive solution fulfils the requirements of certain user segments.[485]

(414) While it does not define separate markets for desktop services targeting different types of customers, the Notifying Party submitted market share and other information for each of the two segments of desktop services for on-trading and off-trading floor customers. Moreover:

(a) Within desktop services for on-trading floor customers, the Notifying Party submitted market share and other information for customers focusing on different asset classes. These include (i) desktop services for on-trading floor customers in fixed income; (ii) desktop services for on-trading floor customers in equities; (iii) desktop services for on-trading floor customers in FX; and (iv) desktop services for on-trading floor customers in commodities.[486]

(b) The Notifying Party also submitted market share and other information for different types of off-trading floor customers. These include (i) asset managers; (ii) banking customers; and (iii) wealth managers.[487]

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481 Mergent's desktop service focuses particularly on US companies fundamentals, North American equities, and US corporate and municipal bond reference data.

482 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraphs 12, 14.

483 Form CO, Information Services, paragraph D.330 and Annex 201.

484 Form CO, Information Services, paragraph D.350.

485 Form CO, Information Services, paragraph D.168.

486 Form CO, Information Services, Annexes 200 and 207.

487 Form CO, Information Services, Annexes 200 and 207.

3.10.1.3. The Commission's assessment

A. Comprehensive desktop services

(415) For the reasons explained in recitals (398) above, desktop services and CRTDs belong to separate relevant markets. On the basis of the market investigation results and the evidence available to it, the Commission considers that the market for desktop services includes only comprehensive desktop services, combining different types of data, applications, and tools.

(416) The Commission takes this view for the following reasons.

(a) In *Blackstone/Thomson Reuters F&R Business*, the market investigation revealed that end-customers distinguished between packaged comprehensive desktop services and discrete content sets. End-customers admitted that packaged solutions lead to cost savings and allow users to be more efficient. Discrete content sets may be purchased as add-ons to a packaged solution, such as a desktop service.[488]

(b) The market investigation in the present case confirms that several end-customers consider discrete content sets as complements ("add-ons") but not substitutes to comprehensive desktop services.[489] Moreover, according to the majority of informative data vendor respondents,[490] dedicated application functionality platforms (even when they are delivered through a desktop interface) are not comparable with comprehensive desktop services.[491]

(417) Desktop services do not constitute a homogeneous category of services. There is a continuum in the desktop services available in the market. Desktop services range from premium solutions (which include all the data, tools, and applications that a vendor can offer) to mid-tier solutions and low-tier solutions, which offer a selection of data, tools, and applications – often tailored to the needs of customers. Low and mid-tier solutions are distinct from discrete content sets in that they contain tools and applications, whereas discrete content sets comprise exclusively of data. Premium solutions are more expensive than mid- and low-tier solutions.[492]

(418) However, the Commission does not consider that the market for desktop services should be further sub-segmented along these product categories. Rather, product categories constitute differentiated products within the same relevant market. In the market investigation, certain respondents pointed to the differences between premium and mid-/low-tier services,[493] but the majority of end-customers did not provide any evidence suggesting that the different solutions belong to separate relevant markets.[494] Data vendors responding to the market investigation also highlighted the differences between premium and mid-/low-tier low desktop services. However, most data vendors confirmed that the different types of desktop

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488 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

489 Regarding non-real-time data, see questions 53 and 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

490 Informative respondents include all respondents except those who replied "I do not know" to the relevant question.

491 Question 15, Questionnaire 8 to data vendors, Doc ID 6479.

492 See for instance the price differential between Eikon premium and Refinitiv's mid and low-tier equivalents in Form CO, D.504.

493 Question 12, Questionnaire 9 to information services end-customers, Doc ID 6480.

494 Questions 6ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

services could compete with each other, depending on the use case and budget of the end-customer. Notwithstanding this, the differences between premium and mid-/low-tier desktop services are taken into account below in the context of the Commission's competitive assessment.[495]

B. Customer segments and asset classes

(419) The market investigation also did not provide clear evidence that the relevant market for desktop services should be sub-segmented further across categories of customers (on-trading floor v. off-trading floor) and (for on-trading floor customers) across asset classes.

(420) The majority of data vendor respondents submitted that they propose the same desktop solutions for on-trading and off-trading floor customers. FactSet submits that it "*sells its core basic workstation to both on-trading and off-trading customers, but there are specific add-ons and tools for [on-]trading floor customers*".[496] The majority of data vendor respondents also stated that they offer the same desktop solutions for all types of off-trading floor customers.[497] There may be specific add-ons for each category of off-trading floor customers. For example, FactSet offers the Portfolio Analytics add-on for asset managers; the Research Management Solutions for banks which allows them to create their own internal research notes and news feed; and Portfolio Exposures and Advisor Dashboard for customers in the wealth segment.[498] The fact that these functionalities are offered as "add-ons" confirms that the underlying product targets all different types of customers and does not support the definition of separate relevant markets for each type of customer.

(421) As regards a possible sub-segmentation of desktop services by asset class, several end-customers and data vendor respondents stated that the same desk may choose different vendors for the different asset classes it is trading.[499] Yet, the majority of end-customer respondents do not consider that desktop services should be sub-segmented across different asset classes.[500]

3.10.2. Relevant geographic market definition

3.10.2.1. Previous Commission decisions

(422) In *Blackstone/Thomson Reuters F&R Business,* the market investigation confirmed that the relevant geographic scope for desktop services is worldwide or at least EEA-wide as both end-customers and competitors are active globally or at least regionally and the core offering remains the same throughout the world and/or the region.[501]

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495 See Sections 4.5.2 and 4.5.5 below.

496 Question 11, Questionnaire 8 to data vendors, Doc ID 6479.

497 Question 12, Questionnaire 8 to data vendors, Doc ID 6479.

498 Question 12.1, Questionnaire 8 to data vendors, Doc ID 6479.

499 Question 10.1, Questionnaire 9 to information services end-customers, Doc ID 6480 and Question 26.1, Questionnaire 8 to data vendors, Doc ID 6479.

500 When asked to indicate the top 5 players in desktop solutions in the EEA, only a minority of end-customers stated that their "*answer differs for a specific type of business activity or asset class*". See questions 10 and 10.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

501 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 19.

3.10.2.2. The Notifying Party's view

(423) The Notifying Party submits that the market for desktop services is global in scope.[502]

3.10.2.3. The Commission's assessment

(424) On the basis of the market investigation results and the evidence available to it,[503] the Commission considers that the geographic scope of the relevant market for desktop services is global.

(425) In the market investigation, the vast majority of end-customer respondents and data vendors indicates that the geographic scope of the relevant market is global. Desktop services are purchased by customers worldwide. Data vendors typically commercialise the same desktop service models at worldwide level. They also set their prices at global level.[504]

3.10.3. Conclusion

(426) Based on the above and the evidence available to it, the Commission considers that there is a separate relevant market for comprehensive desktop services (excluding discrete content sets) and that this market should not be sub-segmented across customer categories or (for off-trading floor customers) across asset classes. The Commission also considers that the geographic scope of the relevant market for desktop services is worldwide.

3.11. Provision of Venue Data

(427) Trading venues generate market data regarding the financial instruments that are traded on them ("venue data"). Put simply, venue data are a by-product of the trading activity that takes place on a venue.

(428) Based on their content, venue data can be categorised into: (i) pre-trade data (consisting of bid and ask prices and volumes for various financial instruments) and (ii) post-trade data (i.e., the price and volume ultimately agreed for a specific trade).

(429) Based on the timing of delivery, venue data can be categorised into: (i) real-time data[505] and (ii) non-real-time data. In 2018 and 2019, real-time venue data represented approximately [a very hiiigh percentage] of the total revenues of LSEG from venue data.[506] LSEG does not charge customers for access to non-real-time data from its venues unless the customer redistributes the data or uses it to create a commercial product.[507] Moreover, based on Articles 12 and 13 MiFIR, LSEG makes available a set of core elements of its venue data ("transparency data") 15 minutes after publication.[508] This is referred to as delayed data and it is made available free of charge.

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502 Form CO, paragraph D.323 which refers to "*other financial information products*".

503 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 19.

504 Question 16, Questionnaire 8 to data vendors, Doc ID 6479 and Question 9, Questionnaire 9 to information services end-customers, Doc ID 6480.

505 Namely, delivered no later than 15 minutes after its generation. In practice, real-time data is often delivered in microseconds (i.e. 1/1 000 000 of a second).

506 Form CO, Information Services, Table 12 (as updated in RFI 13 reply, question 28).

507 Form CO, Information Services, paragraph D.94.

508 As of 3 January 2021, the period within which trading venues and investment firms must make post-trade transparency data available to the public will be reduced from 15 minutes to 5 minutes.

(430) Real-time venue data are typically used by on-trading floor customers to inform real-time trading decisions. Non-real-time data are typically used by off-trading floor customers.

(431) On-trading floor and off-trading floor customers purchase licenses to access venue data.[509] For the purposes of this Decision, they will be referred to as "end-customers" of venue data. End-customers have their venue data delivered directly from trading venue such as LSE or more often, through a data vendor such as Refinitiv. Data vendors consolidate and distribute real-time venue data via desktop services or through consolidated real-time datafeeds. Non-real-time venue data is accessed by end-customers also through desktop services or through non-real time datafeeds. Data vendors need to purchase a redistribution license to be able to include real-time and non-real-time venue data in their desktop services and datafeeds.

(432) LSEG and Refinitiv are active in the generation and licensing of venue data. LSEG owns several trading venues,[510] including London Stock Exchange ("LSE"), which focuses on equities trading. Refinitiv owns FXall and Matching, which enable trading of foreign exchange ("FX") products.[511] Refinitiv also controls Tradeweb, a venue that enables trading in fixed income, derivatives, and exchange-traded funds, and other instruments.

3.11.1. Relevant product market definition

3.11.1.1. Previous Commission decisions

(433) In *Deutsche Börse/NYSE Euronext*, the market investigation demonstrated that the parties each provided exchange-specific information that was not capable of being replicated by market data services provided by other exchanges or venues. In other words, the market investigation shows that the venue data from each exchange constituted a standalone market.[512]

(434) In *Intercontinental Exchange/NYSE Euronext*, the Commission confirmed this: *"[b]oth Parties are... active in the provision of proprietary market data.... Nonetheless, since... proprietary market data... are specifically related to an individual trading venue, no overlap can be identified between the Parties' activities...".*[513]

3.11.1.2. The Notifying Party's view

(435) The Notifying Party takes the view that data generated by competing venues is generally not substitutable. Having said this, the Notifying Party also takes account of competition between trading venues. It thus recognises scope for potential competition between data generated by different trading venues for certain asset

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509 Customers will need different licenses depending on the purpose for which the data will be used. For instance, end-customers will purchase different licenses for display or non-display usage, for the usage of the data to calculate indices or other products, etc.

510 These are the London Stock Exchange, Borsa Italiana, MTS, EuroTLX, Turquoise, BondsPro and CurveGlobal.

511 FXall venue data are not yet commercialised. See Form CO, paragraph D.24.

512 Commission decision of 1 February 2012 in Case M.6.166, *Deutsche Börse/NYSE Euronext*, paragraphs 140 and 152.

513 Commission decision of 24 June 2013 in Case M.6873, *Intercontinental Exchange/NYSE Euronext*, paragraph 11.

classes (namely, where that asset class is traded widely across multiple venues, which have comparable characteristics).[514]

3.11.1.3. The Commission's assessment

(436) On the basis of the market investigation results and the evidence available to it, the Commission considers that each trading venue (especially regulated markets, like LSE) offers unique trading data sets that cannot be substituted by the trading data from other venues.[515]

(437) The Commission takes this view in line with its observations in previous cases and for the following reasons:

(a) The results of the market investigation confirm that trading data from different venues are not substitutable. The majority of end-customer respondents state that if the licensing fees for the venue data they license today permanently increased by 5-10%, they would not switch to an alternative data set from a different venue.[516] All data vendor respondents confirm that end-customers are unlikely to switch to an alternative data set from a different venue in case of such a price increase.[517] As end-customer Société Générale puts it, *"... there is no competition on market data services across trading venues. Market data from one trading venue cannot be substituted by market data from an alternative venue. Although an instrument could be traded on multiple venues, the price (and bid/ask prices and related order sizes) for this instrument differ* […] *from one venue to another. In order to get a proper understanding of the liquidity available on that instrument and ensure best execution to clients, market participants must access* [...] *real-time market data from [the] most visible trading venues*".[518]

(b) Prices of venue data have consistently increased at least after the entry into force of MiFID II,[519] as reported by several market data users responding to an European Securities and Markets Authority ("ESMA") consultation paper of July 2019. According to these respondents, one of the underlying reason for this price increase was that "*each trading venue provides indispensable real-time datasets that cannot be replaced*".[520]

(c) As confirmed in its internal documents, Refinitiv [internal analysis of competitive conditions]. In an email of 4 February 2019, [Refinitiv senior employee] stated: "[internal analysis of competitive conditions]".[521] In an email

514 Form CO, Information Services, paragraph D.329 and Annex 196, paragraphs 1 and 2.

515 The Commission considers that the relevant market for venue data of one trading venue includes both real-time and non-real-time venue data. In the market investigation, the majority of informative end-customers submits that they purchase both types of venue data (see Question 104, Questionnaire 9 to information services end-customers, Doc ID 6480).

516 Question 106, Questionnaire 9 to information services end-customers, Doc ID 6480.

517 Question 165, Questionnaire 8 to data vendors, Doc ID 6479.

518 Question 105.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

519 Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, 12.6.2014, p. 349.

520 ESMA, MiFID II/MIFIR Review Report No. 1, page 68, available at https://www.esma.europa.eu/sites/default/files/library/mifid_ii_mifir_review_report_no_1_on_prices_for_market_data_and_the_equity_ct.pdf (last accessed on 23 September 2020).

521 [internal document].

of 18 Octobere 2018, [Refinitiv senior employee] mentioned regarding SEC's regulatory action: "[internal analysis of competitive conditions]".[522]

(d) Third-party market reports confirm that venue data from different trading venues are not substitutable with each other. A JP Morgan report of March 2020 reads: "[e]*xchanges have a natural monopoly on the data generated as part of their core operations*".[523] A 2018 report from Copenhagen Economics states: "*the revenue from the trading venues stems from the sale of market data, where the trading venues still hold a monopoly. This means that trading venues still do not experience any competition on a significant share of their business*".[524]

3.11.2. Relevant geographic market definition

3.11.2.1. Previous Commission decisions

(438) In its past decisions, the Commission has not defined the geographic scope of the relevant market for venue data. In *Reuters/Telerate*, the Commission considered a broad market for the supply of real-time market data to end customers and concluded that it was at least EEA-wide in scope.[525]

3.11.2.2. The Notifying Party's view

(439) The Notifying Party submits that the market for the supply of venue data is global in scope.[526]

3.11.2.3. The Commission's assessment

(440) On the basis of the market investigation results and the evidence available to it, the Commission considers that the geographic scope of the relevant market is global.

(441) In the market investigation, the majority of end-customer respondents,[527] data vendor respondents,[528] and venue data provider respondents[529] all confirmed that the geographic scope of the relevant market is global. Venue data are licensed by customers worldwide who have an interest in receiving trading data from a specific venue. Data vendors carry trading data from venues worldwide. Finally, prices for venue data are set at global level.[530]

3.11.3. Conclusion

(442) Based on the above and the evidence available to it, the Commission considers that there are separate relevant markets for the licensing of venue data generated in each trading venue and that the geographic scope of these markets is worldwide.

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522 [internal document], Doc ID 4257-31025.

523 JP Morgan, "European Exchanges", March 2020, page 3, Doc ID 6314.

524 Copenhagen Economics, Pricing of Market Data, 2018, page 14, available at https://www.copenhageneconomics.com/dyn/resources/Publication/publicationPDF/6/466/1543587169/pricing-of-market-data.pdf (last accessed on 11 June 2020).

525 Commission decision of 23 May 2005 in Case M.3692, *Reuters/Telerate*, paragraphs 10 and 15.

526 Form CO, paragraphs D.323ff.

527 Question 107, Questionnaire 9 to information services end-customers, Doc ID 6480.

528 Question 166, Questionnaire 8 to data vendors, Doc ID 6479.

529 Question 12, Questionnaire 13 to venue data providers, Doc ID 6463.

530 See Question 107, Questionnaire 9 to information services end-customers, Doc ID 6480; Question 166, Questionnaire 8 to data vendors, Doc ID 6479; and Question 12, Questionnaire 13 to venue data providers, Doc ID 6463.

3.12. Index Licensing

(443) An index is a figure that is made publicly available and is regularly determined (i) by applying a formula or other method of calculation or making an assessment and (ii) on the basis of the value of one or more underlying assets or prices.[531] An index becomes a benchmark when it is used as a reference to determine the amount payable under a financial instrument or contract, or the value of a financial instrument; or when it is used to measure the performance of an investment fund for the purpose of tracking the return, defining the asset allocation, or computing the performance fees.[532]

(444) According to the Notifying Party, there are two types of indices: securities indices (which track the value or performance of a "basket" of financial instruments such as equities or fixed income instruments like bonds) and reference rates (which denote the prices/rates available on the market across different time horizons).[533]

(445) Indices are designed and licensed by the index provider who owns the intellectual property rights relevant to the index. The index provider may also be responsible for index administration, or may delegate it to a third party. Index administration includes among other things the calculation of the index, which requires data (often real-time) on the underlying financial instruments or rates. Index providers such as asset managers or banks may choose to outsource their index calculation services.

(446) LSEG is active in index design, licensing and calculation through FTSE Russell, with a focus on design and licencing.[534] FTSE Russell focuses on securities indices. Approximately [a high percentage] of its indices revenues in 2019 came from one type of securities indices, namely equities indices; these are indices which track the value of baskets of equities.[535] Its flagship products are FTSE 100 and the FTSE 250, which are based on UK equities. Refinitiv is also active in index design, licensing and calculation. Approximately [a high percentage] of Refinitiv's indices revenues in 2019 came from FX reference rates.[536] Its flagship products are WM/Reuters FX Benchmarks. It also offers calculation services for third-party indices, including to other index providers.[537]

3.12.1. Relevant product market definition

3.12.1.1. Previous Commission decisions

(447) In *Deutsche Börse/NYSE Euronext*, the Commission considered index licensing to be a separate product market, which could be potentially sub-divided by index type.[538] In that case, the Commission noted the lack of demand-side substitutability for individual indices, including those referring to securities at European or national levels, as they offer different exposures which market participants did not consider to

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531 See Article 3(1)(1) of the Regulation (EU) 2016/2011 of the European Parliament and the Council of 8 June 2016, on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014, OJ L 171, 29.6.2016, page 1 ("Benchmark Regulation").

532 See Article 3(1)(3) of the Benchmark Regulation.

533 Form CO, paragraph D.210.

534 Its calculation services are de minimis. Form CO, paragraph D.461.

535 Form CO, Information Services Chapter, Table 31 (as updated in RFI 13 reply, question 28).

536 Form CO, Information Services Chapter, Table 27 (as updated in RFI 13 reply, question 28).

537 Form CO, paragraph D.119.

538 Commission decision of 1 February 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 148

be substitutable among one another.[539] The Commission's investigation also highlighted that supply-side substitutability is limited due to the existence of IP rights and commercial barriers to entry across different index segments.[540]

(448) In *Intercontinental Exchange/NYSE Euronext*, the Commission has also defined separate markets for indices based on the asset class of their constituents and on geography covered, national and regional.[541]

3.12.1.2. The Notifying Party's view

(449) Within index licensing activities, the Notifying Party identifies two broad types of indices: securities indices and indices used as "reference" rates. The former include equity indices, fixed income indices, etc. while the latter denote the rates available on a market such as exchange rates and interest rates, which are calculated at one or more specific times during the day.

(450) The Notifying Party also notes that the Commission has not previously defined separate markets for benchmark administration and index calculation services. The Notifying Party submits that these should be characterised as ancillary to index licensing since they are not specialised functions and are commonly outsourced to third parties or otherwise performed in-house. Ultimately, the Parties consider that the market definition can be left open, as the Transaction will not raise competition concerns on any plausible market definition.

(451) The Notifying Party does not contest the Commission's approach in *Deutsche Börse/NYSE Euronext*,[542] and agrees with the Commission's conclusion that there could be plausible separate markets for index licensing for different types of asset classes.[543] However, concerning the approach adopted in the decision pursuant to Article 6(1)(c) in this case, the Notifying Party disagrees with the decision to identify relevant index licensing markets also by geographic exposure. It states that it does not consider it appropriate to segment indices by geographic exposure given the high degree of supply-side substitutability. It also highlights that data vendor's redistribution licences for index data will typically allow data vendors to distribute all indices within an index series (e.g. all FTSE or all Russell indices), whereas redistribution licenses which allow for redistribution of indices within a same geography are more uncommon.[544] In the Notifying Party's view, the Commission's competitive assessment in the decision pursuant to Article 6(1)(c) points to the limited relevance of segmenting by geographic exposure, as the more relevant scenario is the effect of input foreclosure relating to all FTSE Russell indices.[545]

3.12.1.3. The Commission's assessment

(452) In line with the Commission's precedents and on the basis of the market investigation results and the evidence available to it, the Commission considers that distinct plausible product markets exist for index licensing for different types of asset

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539 Commission decision of 1 February 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 428.

540 Commission decision of 1 February 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 147.

541 Commission decision of 24 June 2013 in Case M.6873, *Intercontinental Exchange/NYSE Euronext*, paragraph 65.

542 Form CO, paragraphs D.309 and D.331.

543 Response to the decision pursuant to Article 6(1)(c), paragraph 296.

544 Response to the decision pursuant to Article 6(1)(c), paragraph 297.

545 Response to the decision pursuant to Article 6(1)(c), paragraph 297.

classes (i.e. equity, FX, fixed income, commodities, multi-asset, etc.) and in certain asset classes, for reference rates as separate from other indices.

(453) *First*, there is limited demand-side and supply-side substitutability between indices across different asset classes. The market investigation reveals that end-customers identify asset class as among the top 3 parameters when selecting indices, thus making it a strong component in their decision-making process.[546] As end-customer DZ Bank put it, *"[i]ndices are not easily interchangeable due to the different asset classes or markets that lie behind them*".[547] When asked about alternatives to the Parties' UK equities indices and FX benchmarks, no data vendor or end-customer identified any indices within a different asset class.[548] An index competitor expressed that individual index providers may have a specific expertise in specific asset classes or geographies.[549] Another index competitor corroborated this view by expressing that *"[t]here are differences depending on the type of index, for example: equity indices are distributed real time whilst fixed income is typically distributed end of day (and hence frequency differs); certain index brands are recognized more in equity (e.g. MSCI, S&P) versus fixed income (e.g. IHS Markit, Bloomberg-Barclays); and whilst some indices may have broad coverage, actual usage might be heavily focused in a particular geography/asset class."*[550] Indeed, comparing the market shares for equity index licensing and fixed income index licensing reveals that only two of the top ten providers of equity indices are also top ten providers of fixed income indices.[551] Given the importance of brand recognition in index licensing (see below recital (455)(c), it would require considerable marketing efforts for index providers specialising in one asset class to create demand for their indices in a different asset class.

(454) The Notifying Party argues that data vendors' redistribution licenses of indices are usually for a variety of indices and not for a single index, which indicates that the product market definition should not include the geographic exposure of the index. This is incorrect for the delimitation of the product market definition, because the demand for specific indices comes from end-customers and not from data vendors themselves, as data vendors carry indices based on customer preferences.[552] For this reason, the relevant demand-side substitutability to take into consideration is that of end-customers, not that of data vendors.

(455) Further, in the case of equity indices, the Commission considers, in line with the precedents and confirmed by the market investigation results, that separate relevant markets exist based on geographic coverage; for the purposes of this case the Commission concludes to the existence of a separate market at least for UK equity indices, and plausible markets for European equity indices and Global equity indices. The Commission takes this view for the following reasons:

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546 Question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.

547 DZ Bank's response to Question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

548 Question 185, Questionnaire 8 to data vendors, Doc ID 6479; and, question 122, Questionnaire 9 to information services end-customers, Doc ID 6480.

549 Question 20.7, Questionnaire 10 to index competitors, Doc ID 6460.

550 Question 20.7, Questionnaire 10 to index competitors, Doc ID 6460.

551 Form CO, Table 71, page 814, and Table 76, page 819.

552 Response to question 44, Questionnaire 18 to data vendors, Doc ID 6468.

(a) First, 69% of end-customers responded that indices are not substitutable across geographies.[553] As end-customer Charles Stanley explained, "*[t]he index has to be relevant to what it is being compared against, this would include geography*"[554], while end-customer Intesa Sanpaolo expressed that "[e]*ach index is related to the geographical area. The data sources are not interchangeable*".[555] 67% of index providers concurred that equity indices are only interchangeable within the same geography, and the remaining 33% indicated that it depends on what the customers are trying to achieve, as well as on brand awareness and cost considerations.[556] End-customer Unicredit explained that "[u]*nlike Geographically linked indices, […]sector indices are more exchangeable, but as soon as there is a link to* [geographies] *(e.g. STOXX Auto) it becomes problematic again*."[557]

(b) Second, even within the same geography, it appears that certain indices cannot be substituted with rival indices under most circumstances. In particular, within a geography, "[e]*specially number 1 country benchmarks are that well known, that most of them are not interchangeable*".[558] This is confirmed by end-customer Deutsche Bank, who indicates that "[b]*randing and geographies are specifically requested by clients*".[559] Moreover, when asked about what are the most important parameters that they take into consideration when licensing indices (regardless of whether indices are accessed directly or via data vendors' products),[560] end-customers ranked geography among the top 4 most important elements they consider important in their decision-making.[561] In this context, it appears that indices within an asset class linked to a certain geography only compete with indices within the same asset class and linked to the same geography.

(c) As to the Notifying Party's argument that indices are substitutable from a supply-side perspective, evidence in the market investigation indicates that entry into some market segments might be harder than in others. This is because some markets appear to be dominated by flagship indices from renowned brands, as is the case for FTSE Russell's indices linked to UK equities. Indeed, index brand is among the top three parameters considered by end-customers when selecting indices.[562] In particular, providers of structured

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553 Question 124, Questionnaire 9 to information services end-customers, Doc ID 6480.

554 Charles Stanley's response to Question 124.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

555 Intesa Sanpaolo's response to Question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

556 Questions 14 and 14.2, Questionnaire 10 to index providers, Doc ID 6460.

557 Unicredit's response to question 124.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

558 Question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480. Further to this point, FinecoBank S.p.A. explained that "*some indices represent unique industry benchmarks and they can be obtained by only 1 single data provider, which is substantially connected with a major national trading venue*" (question 45, Questionnaire 19 to information services end-customers, Doc ID 6469).

559 Deutsche Bank's response to question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

560 Indeed, indices are licensed directly by end-customers with the index provider. End-customers wishing to access index data via a data vendor's product will need a CRTD or desktop service product license from that data vendor, and said data vendor will also have to acquire a redistribution license from the index provider to be able to supply the index data to the end-customer.

561 Question 186, Questionnaire 9 to information services end-customers, Doc ID 6480.

562 Question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.

products can count on well-known index brands making sales easier, thus favouring household names.[563] End-customer ADVFN explains that "*well known Brands are important when it comes to indices",*[564] and end-customer Citigroup further explains that "[o]*ur requirements are mostly dictated by* [our] *clients, hence indices are not interchangeable. If a client requires an index from Vendor A, we need to acquire Vendor A's index, though other providers may cover the same geography*."[565] In this context, for certain index licensing sub-segments which are dominated by a renowned index with a respected brand (such as FTSE Russell in UK equity indices), supply-side substitution is limited.

(d) Third, the importance of brand is further supported by the Commission's SSNIP test, which indicates that a significant portion of end-customers would not switch in the event of a 5-10% price increase. 23% of end-customers would not switch to an alternative index provider if subjected to a 5-10% price increase, while the majority 51% may or may not switch, depending also other factors (including the availability of alternative indices that would satisfy their needs).[566] Only 26% of informative end-customers expressed positively that they would switch to an alternative index provider if subjected to a 5-10% price increase in index costs.[567] From the data vendors' perspective, 83% of informative desktop services providers and 75% of informative CRTD providers indicated that they would not stop distributing the indices if subjected to a 5-10% price increase in the licensing costs for FTSE Russell UK equities index data.[568]

(e) The Notifying Party claims that network effects should be taken into consideration when determining the loss of sales resulting from a 5-10% increase in the price of a given index, which could widen their potential substitutability with other indices. This argument is speculative and unsubstantiated, and suggests that the potential demand substitution of indices should be observed over a prolonged period of time that it would take for the alleged network effects to take effect. In any event, if the network effects claimed by the Notifying Party are a feature of the index licensing market, there is no reason to believe that this will not have been taken into consideration by end-customers in responding to the Commission's questionnaire. Lastly, it must be reminded that the SSNIP test is only one of several elements that justify the Commission's proposed product market definitions.

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563 Question 19.2, Questionnaire 10 to index providers, Doc ID 6460.

564 ADVFN's response to question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

565 Citigroup's response to question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

566 For instance, DZ Bank indicated that flagship indices, like "*certain* [indices], *such as FTSE 100 or Euro STOXX cannot be easily replaced by another index*" (question 121, Questionnaire 9 to information services end-customers, Doc ID 6480), and end-customer Unicredit explained that "[f]*or most indices there is a lack of alteratives. Even if alternatives are in the market, then there is usually a lack of liquidity on the underlying hedges, and those are also provided by exchanges themselves, so they can make certain hedges unattractive. Generally there is a lack of competition amongst exchanges and their index provider arms, which makes most indices monopolies*" (question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480).

567 Question 130, Questionnaire 9 to information services end-customers, Doc ID 6480.

568 Questions 23 and 54, Questionnaire 18 to data vendors, Doc ID 6468.

(f) Considering the above, the Commission considers that the product markets of UK equities indices, European equity indices and Global equity indices are each separate relevant product markets because they each combine an asset class with a geography, which are two elements that are not substitutable according to the market investigation.

(456) *Second*, in the case of the asset class of FX, for the purposes of this case the Commission considers FX benchmarks to be separate from FX indices. While FX indices provide customers with exposure to the performance of specific currency pairs (or sets of currency pairs), FX benchmarks act as reference rates for financial market participants, by being used as a reference in financial contracts, in portfolio valuation, and in performance measurement, etc. There are specific regulatory requirements under the EU Benchmark Regulation for the provision of, and contribution to benchmarks. Moreover, there appears to be very limited overlap in suppliers of FX benchmarks (Refinitiv, Bloomberg and New Change being the main suppliers) and suppliers of FX indices (LSEG, Refinitiv, Bloomberg, JP Morgan, ICE, CBOE, etc.). [569] Therefore, the product market of FX benchmarks is relevant because it is a separate asset class and it is sufficiently differentiated from FX indices.

(457) *Third*, with respect to securities indices based on the asset class of fixed income instruments, i.e. financial instruments such as bonds which provide a fixed stream of income to the holder, the Commission notes that there are some indications of further segmentation by type of instrument and/or geography. For instance, convertible bonds are a certain type of bond, i.e. fixed income financial instrument, whose principle amount is conditionally convertible into equity stocks.[570] In this sense indices based on baskets of convertible bonds provide a specific type of risk exposure to the customer and may give rise to limited demand-side substitutability with other fixed income indices. As for supply-side substitutability, the Commission notes that LSEG has a negligible presence in convertible bond indices, while it is active in the broader segment of fixed income indices. Moreover, money market indices track money market instruments, which are meant for short-term investment and can easily be converted to cash. As such, they too provide a specific exposure and may give rise to limited demand-side substitutability with other fixed income indices. From a supply-side perspective, there is also limited overlap between the top 10 money market index providers and the top 10 fixed income index providers.[571] As another example, gilt benchmarks refer to UK Government Bonds, which are called gilts. Prior to 2017, the UK Debt Management Office published end-of-day gilt reference prices on behalf of the Gilt-Edged Market Makers Association (GEMMA).[572] Since they provide a very specific reference rate, gilt benchmarks could plausibly constitute a separate market segment. Nevertheless, the further segmentation of fixed income indices can be left open for the purposes of this Decision as no competition concerns arise in this market regardless of the specific segmentation.

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569 Form CO, Tables 72-85.

570 Form CO, paragraph B.11.

571 Form CO, Tables 72-85.

572 Since 2017, Tradeweb and FTSE Russell were selected to provide official end-of-day gilt reference prices; FTSE Russell as administrator and Tradeweb as licensor. Tradeweb calculates the reference prices based on executable bid and offer prices supplied by GEMMs to Tradeweb's electronic trading platform. There are a number of other providers of gilt benchmarks.

(458) *Fourth*, the Commission considers multi-asset indices to constitute a separate market from equity indices and fixed income indices, since they comprise securities across both asset classes. They provide investors with a targeted asset allocation, potentially with a geographic of sectorial focus. From a supply-side perspective, competitors have different strengths in the different asset classes than in the "multi-asset" product market, which suggests that they are not easily substitutable with the individual asset classes comprised within.[573]

(459) *Fifth*, the Commission notes that there are some indications of further segments of equity indices and fixed income indices, such as ESG indices and real estate indices. These types of indices provide customers with specific types of exposure based on company sector (real estate) or other company properties (ESG). Nevertheless, the further segmentation of equity indices and fixed income indices by these types can be left open for the purposes of this Decision as no competition concerns arise in this market regardless of the specific segmentation.

(460) *Sixth*, the Commission considers that there is a plausible product market for interest rate benchmarks. Interest rate benchmarks, similarly to FX benchmarks, act as a reference for financial market participants and are widely used as a reference in financial contracts including both derivatives and cash instruments, in the valuation of financial contracts and portfolios, and in performance measurement. They indicate the amount of interest payable for a wide range of financial products and is determined on the basis of the rate at which banks may lend to, or borrow from, other banks, or agents other than banks. From a supply-side perspective, the provision of interest-rate benchmarks is differentiated as there are specific regulatory requirements for the provision of, and contribution to interest rate benchmarks.[574]

(461) *Seventh*, the Commission considers that there is a plausible product market for commodities indices. Commodities are a differentiated asset class, and indices based on baskets of commodities are typically commercialised independently by index providers from indices based on other asset classes.[575] Moreover, from a supply-side perspective, index providers have different competitive strengths across different asset classes, as the market shares in commodities indices indicate.[576]

(462) *Last*, as regards benchmark administration and index calculation services, based on the market investigation and other evidence available to it,[577] the Commission does not consider these to constitute separate product markets but rather to be ancillary activities often performed by the same entities who design the indices; as such, for the rest of this Decision, "index licensing" should be read as including index design, benchmark administration and index calculation activities.

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573 Form CO, Tables 72-85.

574 See Article 18 and Annex I of the EU Benchmark Regulation.

575 See for instance Bloomberg's commodies indices series (available at: https://www.bloomberg.com/professional/product/indices/bloomberg-commodity-index-family/?utm_medium=Adwords&utm_campaign=Indices&utm_source=pdsrch&mpam=26469&bbgsum=DG-GP-03-20-M26469&gclid=Cj0KCQiA48j9BRC-ARIsAMQu3WTL4KljArspwI7UuCEEPVBwq1vVCz0X4wurP8ftu1vvthl6FGEAb-UaAqFIEALw_wcB, last accessed on 16/11/2020) or S&P's commodities series (available at: https://www.spglobal.com/spdji/en/indices/commodities/dow-jones-commodity-index/#overview, last accessed on 16/11/2020)

576 See Form CO, Information Services, Annex 210, Table 4.

577 None of the respondents to Q8 to data vendors, Q9 to information services end-customers, Q10 to index providers, Q18 to data vendors, Q19 to information services end-customers, Q20 to index providers indicated at any point that these markets were separate from a the index licensing market.

3.12.2. Relevant geographic market definition

3.12.2.1. Previous Commission decisions

(463) In *Deutsche Börse/NYSE Euronext*, the Commission considered whether the geographic scope of the market is national, EEA-wide or global. The precise geographic market definition was eventually left open.[578]

3.12.2.2. The Notifying Party's view

(464) The Notifying Party submits that the relevant geographic market for indices is global in scope. It notes that while certain retail investors have a preference for indices within a particular investment universe, institutional investors operate in global financial markets and licence from global index providers. It also highlights that there are no material regulatory or technical barriers that prevent customers located in one country from sourcing indices from a provider located in another.[579]

3.12.2.3. The Commission's assessment

(465) On the basis of the market investigation results and the evidence available to it, the Commission considers the geographic scope of index licensing, and in particular of the markets of UK equities indices and FX benchmarks and plausible separate markets of European equity indices, Global equity indices, fixed income indices, convertible bond indices, money market indices, gilt benchmarks, multi-asset indices, ESG indices, real-estate indices, commodities indices, FX indices, and interest rate benchmarksto be worldwide. The Commission takes this view for the following reasons:

(a) *First*, index competitors offer indices predominantly at worldwide level, and data vendors equally distribute them worldwide.[580] This is true also for the abovementioned markets . The majority of data vendors expressed that indices are distributed at worldwide level, with prices also being set at worldwide level and providers typically competing on a global scale. Index providers confirmed that equity indices and FX benchmarks are distributed at worldwide level, that prices are set globally, and that their competitors also compete on a worldwide basis.[581]

(b) *Second*, customers choose indices by comparing products at a global scale, and from the perspective of data vendors and index providers, prices are also set at worldwide level.[582] This is also true for the abovementioned markets. End-customers expressed that for these indices, they compare offers at a worldwide level, and confirmed that providers of these indices typically compete on a global scale.[583]

(c) *Third*, nothing in the market investigation suggested that the geographic scope of the abovementioned markets should be narrower than worldwide. In fact, the providers that are identified as competitors to the Parties' indices (e.g. MSCI,

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578 Commission decision of 1 February 2012 in Case M.6166 – *Deutsche Börse/NYSE Euronext*, paragraph 149.

579 Form CO, paragraphs D.323ff.

580 Questions 15, 16, 17, and 18, Questionnaire 10 to index providers, Doc ID 6460.

581 Questions 187, 188, 189, and 190, Questionnaire 8 to data vendors, Doc ID 6479, Doc ID 6479; and questions 15, 16, 17, and 18, Questionnaire 10 to index providers, Doc ID 6460.

582 Questions 126, 127, 128, and 129, Questionnaire 9 to information services end-customers, Doc ID 6480.

583 Questions 126 and 127, Questionnaire 9 to information services end-customers, Doc ID 6480.

S&P, STOXX, Nasdaq, Bloomberg, etc.)[584] are all global providers that compete in the provision of many kinds of indices on a worldwide scale.

3.12.3. Conclusion

(466) The Commission concludes that separate relevant product markets exist for UK equity indices and for FX benchmarks. In addition, the Commission concludes that there are plausible separate markets for European equity indices, Global equity indices, fixed income indices, convertible bond indices, money market indices, gilt benchmarks, multi-asset indices, ESG indices, real-estate indices, commodities indices, FX indices, and interest rate benchmarks, but that the precise market definition of these can be left open given no competition concerns arise under the plausible market definitions. The geographic scope of these markets is worldwide.

3.13. Security Identifiers

(467) A security identifier is an alphanumeric code which can be used to identify a specific security, with varying levels of uniqueness depending on the type of identifier. For instance, some identifiers are unique at market-level, specifying the instrument and the particular exchange on which it is listed, while other identifiers are unique at country-level, specifying the instrument and the country in which it is listed but without distinguishing between exchanges within the country. Within financial information, security identifiers may be considered a type of reference data as they are used to identify or retrieve certain information about a financial instrument.

(468) LSEG issues and licenses Stock Exchange Daily Official List codes ("SEDOLs"). SEDOLs serve as the national identifying number for securities issued in the UK and as such form part of the International Security Identification Numbers ("ISINs")[585] issued in the UK. SEDOLs are country-level identifiers that need to be paired with a Market Identification Code (MIC) to uniquely identify a security at market level. SEDOLs are licensed by LSEG to customers and third parties for multiple uses outside LSEG systems and processes, including trade reconciliation, clearing and settlement. While primarily equity-focused at the outset, the instrument coverage of SEDOLs has increased and currently OTC derivatives are the only type of security not covered by the SEDOL system.[586]

(469) Refinitiv's Reuters Instrument Codes ("RICs") are identifiers primarily used to refer to information within the Refinitiv data ecosystem. Each security covered by the Refinitiv data ecosystem has its own RIC and as such RICs can be used for identification purposes alongside SEDOLs and other security identifiers. RICs are primarily used by Refinitiv data product users, and are rarely licensed separately to other third parties.[587] Table 2 below provides an overview of the main security identifiers currently in use globally.

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584 Question 122, Questionnaire 9 to information services end-customers, Doc ID 6480.

585 ISINs were first used in 1981, and reached wide acceptance in 1989, when the G30 countries recommended adoption. The ISIN was endorsed a year later by the International Organisation for Standardisation ("ISO") with the ISO 6166 standard.

586 Form CO, paragraphs D.400ff.

587 Form CO, paragraphs D.400ff.

Table 2

Acronym	SEDOL	ISIN	CUSIP	FIGI	RIC
Scheme	Stock Exchange Daily Official List	International Securities Identification Number	Committee on Uniform Securities Identification Procedures	Financial Instrument Global Identifier	Refinitiv Instrument Code
Owner / Licensor / Issuer	Owned and licensed by LSEG	Issued by the NNA in whose jurisdiction the issuer is registered or domiciled	Owned by the American Bankers Association; managed by Standard & Poor's	Issued by Object Management Group	Owned and issued by Refinitiv
Monetisation	Licensed	Allocated either for free or at cost recovery only	Licensed	Open source	RICs are for the most part not licensed or commercialised separately by Refinitiv.
Scope in terms of products (coverage)	All asset classes, apart from OTC derivatives	All asset classes	Instrument coverage includes corporate, municipal, sovereign, and U.S. government debt securities as well as equity securities.	All asset classes	Data records, including data records for financial instruments in all asset classes
Geographical scope	Issued globally	Issued globally	Issued in US and Canada	Issued globally	Issued globally
Users and use-cases	Asset and portfolio valuation; Clearing and settlement; Internal reporting and reporting to authorities; Reference data management.				Retrieval of data from Refinitiv data services; Front office price discovery; Reference data management.
Can change over time	Yes	Yes	Yes	No	Yes

3.13.1. Relevant product market definition

3.12.1.1.Previous Commission decisions

(470) In *Thomson Corporation/Reuters Group*,[588] the Commission considered security identifiers (referred to as "instrument codes" in that decision) separately in the competitive assessment, while not concluding definitively on a separate product market. The decision described codes provided by data vendors like Reuters' RICs for purposes of identification within the vendors' own systems and industry-wide codes provided on a stand-alone basis like SEDOLs, ISINs and FIGIs. ISINs in particular can only be issued by National Numbering Agencies (NNAs). The majority of NNAs do not charge for ISIN allocation and fees do not apply for maintenance/renewal of allocated ISINs. In the few instances where fees are charged for ISIN allocation, this is on a cost-recovery basis only, in accordance with ISO 6166 ISIN Registration Authority obligations.[589]

(471) In *Standard & Poor's*,[590] the Commission considered security identifiers (in that case the relevant identifier being ISINs) as serving different purposes from other financial

588 Commission decision of 19 February 2008 in Case M.4726, Thomson/Reuters, paragraph 71.
589 https://www.anna-web.org/standards/isin-iso-6166/
590 Commission decision of 15 November 2011 in Case COMP/39.5922011, paragraphs 19-21.

information, and particularly being used to identify a security rather than to monitor the markets or evaluate an investment opportunity, and found their distribution distinct from the distribution of other financial information.

3.12.1.2. The Notifying Party's view

(472) The Notifying Party submits that competition in the market for financial information products generally takes place on the basis of packaged solutions and not on the basis of the component content sets. Nevertheless, taking into account the Commission's assessment in past cases, the Notifying Party identified discrete content sets and offerings, one of which was 'securities identifiers'.[591] The Notifying Party did not submit specific views with respect to the product market definition of security identifiers.

3.12.1.3. The Commission's assessment

(473) On the basis of the market investigation results and the evidence available to it, the Commission considers that the potential relevant markets are the market for all security identifiers, and individual markets for each security identifier. The Commission takes this view for the following reasons.

(474) First, the Commission considers that security identifiers constitute a separate product market from other content sets, as they serve a different function to the remainder of financial information available in the market, and play a significant role in the automated systems of market players. Société Générale, as a customer, considers that "*Security identifiers are core data into information system as they allow proper identification of every financial instruments across applications, business workflows, business activities (front, middle, back, reporting) and across data sources. They allow interoperability across different type or source of data via cross-reference securities identifiers mapping tables. Those cross-reference mapping tables are a core component of any IT system supporting within the finance industry.*"[592]

(475) Second, within the market for security identifiers, a possible further segmentation by specific identifier (e.g. SEDOLs, RICs, ISINs, CUSIPs, etc.) was indicated by some respondents to the market investigation. For instance, some market participants mentioned the use of different identifiers for different purposes along the financial market trading value chain. Commerzbank, as a customer explained "*Different identifiers are used by different applications and for different purposes in Front, Middle and Back Office."*[593] However, the market investigation was not conclusive on a precise segmentation, as demonstrated by the following responses: Nplus1 Singer Capital Markets Limited, as a customer, specified "*…in general terms ISIN is used for settlement purposes (CREST), SEDOL & RIC for trading*",[594] while Société Générale indicated "*No alternative [to SEDOL] can be actually used for clearing purposes in UK*."[595] Indeed, while some respondents stated that the ISIN together with the MIC could be a substitute for SEDOLs, half of the responding customers think that there is no alternative to using SEDOLs.[596] In this case, the relevant product market can be left open as the Commission's assessment would not differ

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591 Form CO, paragraphs D.309 and D.331.

592 Question 142, Questionnaire 9 to information services end-customers, response of Société Générale.

593 Question 142, Questionnaire 9 to information services end-customers, response of Commerzbank.

594 Question 142, Questionnaire 9 to information services end-customers, response of Nplus1 Singer Capital Markets Limited.

595 Question 147, Questionnaire 9 to information services end-customers, response of Société Générale.

596 Question 147, Questionnaire 9 to information services end-customers.

depending on whether the market for security identifiers was further differentiated on the basis of specific identifiers..

3.13.2. Relevant geographic market definition

3.12.2.1. Previous Commission decisions

(476) In *Thomson Corporation/Reuters Group*,[597] the Commission considered the geographic scope of content sets, including instrument codes, to be at least EEA-wide and probably global.

(477) In *Standard & Poor's*,[598] the Commission recognised that while often national security identifiers only cover securities issued in the respective countries, in certain exceptions including SEDOLs, the NNA responsible for issuing the security identifiers also attributes identifiers for certain internationally issued securities. Ultimately, the Commission considered the market to be global for the purposes of that decision, as US ISINs were used globally by market players.

3.12.2.2. The Notifying Party's view

(478) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including securities identifiers, is global, or at least EEA-wide, in scope.[599] However, the Notifying Party considers that the market definition can ultimately be left open.

3.12.2.3. The Commission's assessment

(479) As regards the geographic scope of the supply of security identifiers, some respondents to the market investigation did point to certain identifiers having more coverage of specific geographies. NN Group N.V., as a customer, explained "*Depending on the region of issuance, the identifiers will differ and the coverage will not be full. UK is driven by Sedol, Cusip is US identifiers and ISIN is European*," while the Fitch Group noted "*CUSIPs [cover] North America, ISINs [cover] the rest of the world*".[600] However, a large majority of end-customers stated that they compare security identifiers at a global level when selecting which to licence and that providers compete at a global level. Thus, in line with the previous decisional practice and the Notifying Party's view, the Commission considers the geographic market to be worldwide, or at least EEA-wide in scope. In particular, SEDOLs have global coverage, and they can be assigned to any security regardless of whether the trading venue is inside or outside the UK.

3.13.3. Conclusion

(480) Based on the above and the evidence available to it, the Commission considers that security identifiers constitutes a relevant market separate from other financial information content sets. The question of whether all security identifiers constitute a relevant product market, or whether they should be segmented further by specific identifier, can be left open, as the Commission's assessment would not differ under either possibility. The Commission considers that the relevant market is worldwide in scope.

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597 Commission decision of 19 February 2008 in Case M.4726, Thomson/Reuters, paragraph 106.

598 Commission decision of 15 November 2011 in Case COMP/39.592, paragraph 22.

599 Form CO, paragraphs D.86, D.335.

600 Question 143, Questionnaire 9 to information services end-customers, response of NN Group N.V and Fitch Group.

3.14. Sector Classification Schemes

(481) Sector classification schemes are systems for categorisation and comparison of companies according to their activities, industry and sector. Each scheme is composed of levels that increase the granularity of the categorisation – e.g. industry, sector or sub-sector level. A company is given an identifying code that determines its category in each level. Sector classification schemes are used in research, portfolio management, asset allocation and index creation.[601]

(482) Both LSEG and Refinitiv provide sector classification schemes. LSEG's product, Industry Classification Benchmark (ICB), is used by various third-parties such as data vendors, asset managers and providers of research reports. Refinitiv's scheme, Thomson Reuters Business Classification (TRBC), is available mainly as part of Refinitiv's datafeeds and desktop services. TRBC is rarely licensed separately to third parties.

3.14.1. Relevant product market definition

3.12.1.1. Previous Commission decisions

(483) The Commission has not previously examined sector classification schemes.

3.12.1.2. The Notifying Party's view

(484) The Notifying Party submits that competition in the market for financial information products generally takes place on the basis of packaged solutions. However, insofar as the generation of such data generally takes place separately to the collation and distribution of the data as packaged solutions, the Parties consider that there is a separate product market for the generation and supply of sector classification schemes.[602]

3.12.1.3. The Commission's assessment

(485) On the basis of the market investigation results and the evidence available to it, the Commission considers that sector classification schemes constitute a relevant market. From a demand-side perspective the market investigation suggests that information services end-customers sometimes purchase discrete content datasets, including sector classification schemes, as an add-on to the packaged solutions on the market.[603] However, from a supply-side perspective, of the schemes available in the market, two are publicly available and all other schemes but one are available to license on a standalone basis.[604] Indeed, in an internal presentation, LSEG [competitive analysis relating to sector classification schemes].[605] Since data vendors mostly generate and commercialise sector classification schemes as a standalone offering, the Commission considers that they constitute a separate product market from other information services products.

3.14.2. Relevant geographic market definition

3.12.2.1. Previous Commission decisions

(486) The Commission has not previously examinedsector classification schemes and therefore has not previously assessed the relevant geographic scope.

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601 Form CO, paragraphs D.297, D.419-423.
602 RFI 46.3 reply, paragraph 99, Table 7.
603 Question 95, Questionnaire 8 to data vendors, Doc ID 6479.
604 M.9564_IS_Annex 206_Overview of sector classification schemes.
605 Doc ID 4189-8444, [internal document].

3.12.2.2. The Notifying Party's view

(487) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including sector classification schemes, is global, or at least EEA-wide, in scope.[606] However, the Notifying Party considers that the market definition can ultimately be left open.

3.12.2.3. The Commission's assessment

(488) On the basis of the market investigation results and the evidence available to it, the Commission concludes that the geographic scope of the relevant market is global. The Commission takes this view for the following reasons.

(489) During the market investigation, the vast majority of end-customer respondents and data vendors indicates that they purchase other information service products and discrete content sets at worldwide level.[607] Data vendors also typically commercialise information services products and discrete content sets and set their prices at worldwide level.[608] Moreover, the vast majority of available sector classification schemes on the market have global coverage of securities.

3.14.3. Conclusion

(490) Based on the above and the evidence available to it, the Commission considers that sector classification schemes constitute a separate relevant product market, which is worldwide in scope.

3.15. Tick History Data

3.15.1. Relevant product market definition

(491) Historical tick datasets contain archives of historical tick-by-tick trading data drawn from real-time content. Historical tick datasets are used by financial market participants, particularly those active in trading, for back-testing the performance of their trading algorithms, for transaction cost analysis, and for market surveillance.

(492) Refinitiv offers Tick History, which includes global tick data across all asset classes, covering both OTC and exchange-traded instruments from several venues.[609]

3.15.1.1. Previous Commission decisions

(493) The Commission has not previously examined historical tick data. However, for other types of financial data content datasets, the Commission found that "*discrete content sets cannot be substituted for one another since they respond to different and well defined needs of final customers*".[610]

(494) In *Blackstone/Thomson Reuters F&R*, while the Commission ultimately left the exact market definition between discrete content sets or packaged solutions open, the market investigation showed that most end-customers buy financial information in the form of discrete content sets and not only in packaged solutions.[611]

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606 Form CO, paragraphs D.86, D.335.

607 See Questionnaire 9 to information services end-customers, Doc ID 6480.

608 See Questionnaire 8 to data vendors, Doc ID 6479.

609 See https://www.refinitiv.com/content/dam/marketing/en_us/documents/fact-sheets/tick-history-fact-sheet.pdf.

610 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 44.

611 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

3.15.1.2. The Notifying Party's view

(495) The Notifying Party submits that the competition in the market for financial information products takes place between products sold as packaged solutions rather than between discrete content datasets.[612] According to the Notifying Party, the discrete content datasets (including historical tick data) are an input into the financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[613]

(496) While it contests the existence of a separate relevant market for historical tick data, the Notifying Party submitted market information specifically for these content sets.[614]

3.15.1.3. The Commission's assessment

(497) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that historical tick data constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(498) *First*, the market investigation reveals that end-customers often purchase tick history data on a standalone basis in the form of a file delivery, or as an add-on to a packaged solution, including to a desktop solution, a consolidated real-time datafeed and a non-real time datafeed.[615] This suggests that end-customers often consider tick history data as complements to packaged solutions such as desktop services and datafeeds.

(499) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[616] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

3.15.2. Relevant geographic market definition

3.15.2.1. Previous Commission decisions

(500) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of relevant markets involving discrete *financial* data content datasets to be at least EEA-wide and probably global.[617] In *Blackstone/Thomson Reuters F&R*, the Commission considered that the market for discrete content sets is at least EEA-wide but ultimately left open the precise geographic definition for this market.[618]

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612 Form CO, paragraph D.291.

613 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

614 Form CO, Information Services, Annex 201. See also RFI 46 reply, question 2.

615 Question 53, Questionnaire 9 to information services end-customers, Doc ID 6480. Question 100, Questionnaire 8 to data vendors, Doc ID 6479.

616 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

617 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

618 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 22.

3.15.2.2. The Notifying Party's view

(501) The Notifying Party submits that the relevant geographic market for the supply of all financial information products, including historical tick data, is global or at least EEA-wide in scope.[619]

3.15.2.3. The Commission's assessment

(502) On the basis of the market investigation results and the evidence available to it, the Commission concludes that the geographic scope of the relevant market for historical tick data is global. The Commission takes this view for the following reasons.

(503) During the market investigation, the vast majority of end-customer respondents and data vendors indicated that the geographic scope of the relevant market is global. The majority of end-customers purchase historical tick data at the worldwide level.[620] Data vendors typically commercialise the same historical datasets and set their prices at worldwide level.[621]

3.15.3. Conclusion

(504) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for historical tick data (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide in scope.

3.16. Consolidated Non-Real Time Pricing and Reference Data

3.16.1. Relevant product market definition

(505) Consolidated non-real-time pricing and reference data ("CNPRD") are datasets including historical pricing, reference and descriptive data on different types of financial instruments. Whereas the pricing component of this dataset relates to the historical price at which a security was traded, the reference data provides other information relating to the security, such as the duration or terms and conditions of a bond, the notional amount or accrued interest on a bond trade, or the identifying codes attached to a security.[622]

(506) Both Parties offer CNPRD products. Refinitiv offers CNPRD primarily through Datascope, a suite of financial information products delivering Refinitiv's non-real-time pricing and reference content, available as a standard bulk delivery package or a more tailored datafeed. LSEG offers CNPRDs through Mergent.[623]

3.16.1.1. Previous Commission decisions

(507) The Commission has not previously examined whether a separate product market for CNPRDs exists. However, for other types of financial data content datasets, the Commission found that "*discrete content sets cannot be substituted for one another since they respond to different and well defined needs of final customers*".[624]

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619 Form CO, paragraph D.326.
620 Question 56, Questionnaire 9 to information services end-customers, Doc ID 6480.
621 Question 103, Questionnaire 8 to data vendors, Doc ID 6479.
622 Form CO, paragraph D.665.
623 Form CO, Information Services, Annex 202.
624 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 44.

(508) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation showed that most end-customers continue to buy financial information in the form of discrete content sets.[625]

3.16.1.2. The Notifying Party's view

(509) The Notifying Party submits that competition in the market for financial information products takes place between products sold as packaged solutions rather than between discrete content datasets.[626] According to the Notifying Party, the discrete content datasets (including CNPRDs) are an input into the financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[627]

(510) While it contests the existence of a separate relevant market for CNPRDs, the Notifying Party submitted market information specifically for these content sets.[628]

3.16.1.3. The Commission's assessment

(511) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that CNPRDs constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(512) *First*, regarding CNPRDs, the market investigation reveals that end-customers access CNPRD primarily on a standalone basis, e.g., as add-ons to a non-real time datafeed or through other means such File Transfer Protocol or flat files.[629] The fact that end-customers purchase this product separately indicates that these are complementary products.

(513) *Second*, the Commission's market investigation did not support the Notifying Party's view regarding discrete content sets. The majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content datasets, thus indicating that there is customer demand for discrete content sets as separate products. [630]

3.16.2. Relevant geographic market definition

3.16.2.1. Previous Commission decisions

(514) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of relevant markets involving discrete financial data content datasets to be at least EEA-wide and probably global.[631] In *Blackstone/Thomson Reuters F&R*, the Commission considered that the market for discrete content sets is at least EEA-wide but ultimately left open the precise geographic definition for this market.[632]

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625 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

626 Form CO, paragraph D.291.

627 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

628 Form CO, Information Services, Annex 201. See also RFI 46 reply, question 2.

629 Question 69, Questionnaire 9 to information services end-customers, Doc ID 6480.

630 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

631 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

632 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 22.

3.16.2.2. The Notifying Party's view

(515) The Notifying Party submits that the relevant geographic market for the supply of all financial information products, including CNPRD, is global or at least EEA-wide in scope.[633]

3.16.2.3. The Commission's assessment

(516) On the basis of the market investigation results and the evidence available to it, the Commission concludes that the geographic scope of the relevant market for CNPRDs is global. The Commission takes this view for the following reasons.

(517) During the market investigation, the vast majority of end-customer respondents and data vendors indicated that the geographic scope of the relevant market is global. The majority of end-customers purchase CNPRD at the worldwide level.[634] Data vendors typically commercialise the CNPRD and set their prices at the worldwide level.[635]

3.16.3. Conclusion

(518) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for CNPRDs (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide in scope.

3.17. Non-Real Time Datafeeds

3.17.1. Relevant product market definition

(519) Non-real-time data is general financial and economic information such as historical pricing and reference data, macroeconomic data, company data. It may be updated several times a day or daily, but it does not satisfy the real-time data requirements as continually updated financial market information. Non-real-time data is primarily used for research and advisory purposes. It is distributed in (i) non-real-time datafeeds, as (ii) discrete content datasets or through (iii) desktop solutions.

(520) Non-real-time datafeeds (NRTDs) combine various types of financial and economic information aggregated from various sources into a single stream of data. NRTDs may include delayed data, which is being disseminated more than 15 minutes after its generation, and/or historical data from trading venues and index providers.

(521) Both Parties provide NRTDs to customers. Refinitiv provides several NRTD products, while LSEG is active on the market only through Mergent.[636]

3.17.1.1. Previous Commission decisions

(522) In *Blackstone/Thomson Reuters F&R*, the Commission discussed a plausible market for NRTDs, which would be separate from CRTDs, and discrete content datasets. The relevant product market definition was eventually left open.[637]

3.17.1.2. The Notifying Party's view

(523) The Notifying Party contends that there is a relevant product market for NRTDs, which is separate from CRTDs and desktop services. The Notifying Party does not consider it appropriate to distinguish between sub-segments of NRTDs based on the

633 Form CO, paragraph D.326.
634 Question 70, Questionnaire 9 to information services end-customers, Doc ID 6480.
635 Question 123, Questionnaire 8 to data vendors, Doc ID 6479.
636 Form CO, Information Services, Annex 202.
637 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraphs 12, 14.

relevant asset class for which the data is supplied. From a supply-side perspective, the main data vendors cover all asset classes, while on the demand-side customers use one NRTD for various asset classes.[638]

3.17.1.3. The Commission's assessment

(524) On the basis of the market investigation results and the evidence available to it, the Commission considers that there is a separate market for NRTDs.

(525) *First*, the market investigation results confirm the lack of substitutability between NRTDs and any other financial information products, including desktop solutions. The majority of end-customer respondents and several data vendors stated that NRTDs are not substituted by other financial information products.[639]

(526) *Second*, as regards a possible sub-segmentation of NRTDs by asset class, the majority of end-customer respondents do not consider that the competitive landscape in NRTDs changes across different asset classes.[640] This suggests that there is supply-side substitutability in NRTDs across different asset classes, which indicates that sub-segmentation of NRTDs is not appropriate.

3.17.2. Relevant geographic market definition

3.17.2.1. Previous Commission decisions

(527) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of relevant markets involving discrete financial data content datasets to be at least EEA-wide and probably global.[641] In *Reuters Instrument Codes*, the Commission found that the relevant market for CRTDs is worldwide in scope.[642]

3.17.2.2. The Notifying Party's view

(528) The Notifying Party submits that the relevant geographic market for the supply of all financial information products, including NRTDs, is global or at least EEA-wide in scope.[643]

3.17.2.3. The Commission's assessment

(529) On the basis of the market investigation results and the evidence available to it, the Commission concludes that the geographic scope of the relevant market for NRTDs is global. The Commission takes this view for the following reasons.

(530) During the market investigation, the vast majority of end-customer respondents and data vendors indicated that the geographic scope of the relevant market is global. The majority of end-customers purchase NRTDs at a worldwide level.[644] Data vendors typically commercialise the NRTDs and set their prices at worldwide level.[645]

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638 Form CO, paragraph D.330.

639 Question 72, Questionnaire 8 to data vendors, Doc ID 6479; and Question 39, Questionnaire 9 to information services end-customers, Doc ID 6480.

640 When asked to indicate the top 5 players in non-real-time datafeeds in the EEA, only a minority of end-customers stated that their "*answer differs for a specific type of business activity or asset class*". See questions 42 and 42.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

641 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

642 Commission decision of 20 December 2012 in Case AT.39654, *Reuters Instrument Codes*, paragraphs 28ff. See also Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraphs 23-25.

643 Form CO, paragraph D.326.

644 Question 41, Questionnaire 9 to information services end-customers, Doc ID 6480.

645 Question 76, Questionnaire 8 to data vendors, Doc ID 6479.

3.17.3. Conclusion

(531) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for NRTDs and that this market is worldwide in scope.

3.18. Aftermarket Broker Research Reports

3.18.1. Relevant product market definition

(532) Broker Research reports provide compilations of information and analysis companies, markets or industries to support investment decision-making. The reports may contain discussions of significant events, analyses of companies' financial statements and recent stock performance, estimations of future performance on key metrics.

(533) There are two types of Broker Research reports: real-time and aftermarket Broker Research reports. Unlike real-time reports, aftermarket reports are not made available immediately to the public. Rather, they are withheld for an initial period (typically 14 days) during which they are available only to the broker's customers.[646]

(534) Both Parties distribute Broker Research reports. Refinitiv has a material presence in real-time and aftermarket Broker Research reports, including with its product Investext.[647] LSEG is not active in the compilation of these reports. LSEG, through Mergent, purchases aftermarket Broker Research reports from Refinitiv and distributes them to academic institutions.[648]

3.18.1.1. Previous Commission decisions

(535) In *Thomson Corporation/Reuters Group*, the Commission considered Broker Research reports as a discrete content dataset, separate from packaged solutions. The Commission further defined distinct relevant product markets for real-time and aftermarket Broker Research reports.[649]

(536) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[650] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[651]

3.18.1.2. The Notifying Party's view

(537) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including Broker Research reports). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[652] According to the Notifying Party, the discrete content datasets are an input into the

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646 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 76.

647 RFI 46 reply, Table 5. Investext contains research from several sources including from exclusive contributors, such as Barclays, Credit Suisse, Macquarie, and Morgan Stanley (see https://content ftserussell.com/sites/default/files/support_document/Mergent%20Online%20Investext%20Product%20Overview.pdf).

648 RFI 50 reply, question 1.

649 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 74ff and 110.

650 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

651 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

652 Form CO, paragraph D.291.

financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[653]

(538) While it contests the existence of a separate relevant market for Broker Research reports, the Notifying Party submitted market information specifically for this category of products.[654] The Notifying Party also submitted market information for the narrower market segments of real-time and aftermarket Broker Research Reports.

3.18.1.3. The Commission's assessment

(539) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that Broker Research reports do not belong in the same relevant market as packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(540) *First*, the market investigation reveals that end-customers often purchase content sets (including Broker Research reports) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[655] This suggests that end-customers often consider Broker Research reports as complements to packaged solutions such as desktop services and datafeeds.

(541) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[656] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(542) As regards the segmentation of Broker Research reports into two narrower relevant markets, namely the market for real-time Broker Research reports and the market for aftermarket Broker Research reporst, the market investigation does not provide any evidence that the relevant market definition for Broker Research reports should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

3.18.2. Relevant geographic market definition

3.18.2.1. Previous Commission decisions

(543) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of financial data content sets, including real-time and aftermarket Broker Research reports, to be at least EEA-wide and probably global.[657]

3.18.2.2. The Notifying Party's view

(544) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including Broker Research reports, is global, or at least EEA-wide, in scope.[658]

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653 Form CO, paragraph D.293. See also RFI 46 reply, question 2.
654 Form CO, Information Services, Annex 203. See also RFI 46 reply, question 2.
655 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.
656 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.
657 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.
658 Form CO, paragraph D.326.

3.18.2.3. The Commission's assessment

(545) In the market investigation, the majority of the data vendors submit that they offer financial information (including Broker Research reports) worldwide.[659] On the basis of the market investigation results and the evidence available to it and in line with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant markets for real-time and aftermarket Broker Research reports is global or at least EEA-wide.

3.18.3. Conclusion

(546) For the purposes of this Decision, the Commission concludes that there are separate relevant markets for real-time and aftermarket Broker Research reports (different for the markets for packaged solutions, e.g., desktop services) and that these markets are worldwide or at least EEA-wide in scope.

3.19. Earnings Estimates

3.19.1. Relevant product market definition

(547) Earnings Estimates present an aggregation of research analyst predictions on the amount of a company's profits and losses, typically with respect to key metrics such as annual or quarterly earnings per share.

(548) Both Parties offer Earnings Estimates. Refinitiv compiles Earnings Estimates itself and it has a material presence in these datasets with its product I/B/E/S.[660] LSEG is active in Earnings Estimates through Mergent. Mergent does not compile Earnings Estimates content sets itself.[661] It only purchases them from Refinitiv and makes them available in applications targeting academic purchasers.

3.19.1.1. Previous Commission decisions

(549) In *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product market for Earnings Estimates.[662]

(550) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[663] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[664]

3.19.1.2. The Notifying Party's view

(551) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including Earnings Estimates). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[665] According to the Notifying Party, the discrete content datasets are an input into the financial information products, comprised of many different content sets. Furthermore, the

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659 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.
660 RFI 46 reply, Table 5.
661 Form CO, paragraph D.369.
662 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 78ff and 110.
663 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
664 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
665 Form CO, paragraph D.291.

Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[666]

(552) While it contests the existence of a separate relevant market for Earnings Estimates, the Notifying Party submitted market information specifically for this category of products.[667]

3.19.1.3. The Commission's assessment

(553) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that Earnings Estimates constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(554) The market investigation does not provide any evidence that the relevant market definition for Earnings Estimates should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

(555) *First*, the market investigation reveals that end-customers often purchase content sets (including Earnings estimates) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[668] This suggests that end-customers often consider Earnings estimates as complements to packaged solutions such as desktop services and datafeeds.

(556) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[669] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(557) The Commission's market investigation did not provide indications that the relevant market for Earnings Estimates should be sub-segmented further.[670]

3.19.2. Relevant geographic market definition

3.19.2.1. Previous Commission decisions

(558) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets, including Earnings Estimates, to be at least EEA-wide and probably global.[671]

3.19.2.2. The Notifying Party's view

(559) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including Earnings Estimates, is global, or at least EEA-wide, in scope.[672]

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666 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

667 Form CO, Information Services, Annex 203. See also RFI 46 reply, question 2.

668 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

669 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

670 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

671 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

672 Form CO, paragraph D.326.

3.19.2.3. The Commission's assessment

(560) In the market investigation, the majority of the data vendors submit that they offer financial information (including Earnings Estimates) worldwide.[673] On the basis of the market investigation results and the evidence available to it and in line with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for Earnings Estimates is global or at least EEA-wide.

3.19.3. Conclusion

(561) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for Earnings Estimates (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.20. Fundamentals Data

3.20.1. Relevant product market definition

(562) Fundamentals data consists of various company-specific data such as interim and annual financial statement data, calculated financial ratios (*e.g.* annual and five-year averages for growth rates, profitability, leverage, liquidity, asset utilisation), per share data (*e.g.* earnings/book value/cash flow per share), and textual company profile data (including officers, address, web address, major shareholders, and business descriptions). Fundamentals data are generally publicly available but the data vendors aggregate and normalize them for end-users.

(563) Both Parties supply fundamentals data to customers. Refinitiv's key product in this space is Company Fundamentals Data.[674] LSEG collates fundamentals data from public company filings and supplies them through Mergent.[675]

3.20.1.1. Previous Commission decisions

(564) In *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product market for Fundamentals Data.[676]

(565) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[677] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[678]

3.20.1.2. The Notifying Party's view

(566) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including Fundamentals Data). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[679] According to the Notifying Party, the discrete content datasets are an input into the financial

673 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.
674 RFI 46 reply, Table 5.
675 Form CO, paragraphs D.374 and D.375.
676 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 82ff and 110.
677 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
678 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
679 Form CO, paragraph D.291.

information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[680]

(567) While it contests the existence of a separate relevant market for Fundamentals Data, the Notifying Party submitted market information specifically for this category of products.[681]

3.20.1.3. The Commission's assessment

(568) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that Fundamentals Data constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(569) The market investigation does not provide any evidence that the relevant market definition for Fundamentals Data should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

(570) *First*, the market investigation reveals that end-customers often purchase content sets (including Fundamentals data) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[682] This suggests that end-customers often consider Fundamentals data as complements to packaged solutions such as desktop services and datafeeds.

(571) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[683] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(572) The Commission's market investigation did not provide indications that the relevant market for Fundamentals Data should be sub-segmented further.[684]

3.20.2. Relevant geographic market definition

3.20.2.1. Previous Commission decisions

(573) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets, including Fundamentals Data, to be at least EEA-wide and probably global.[685]

3.20.2.2. The Notifying Party's view

(574) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including Fundamentals Data, is global, or at least EEA-wide, in scope.[686]

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680 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

681 Form CO, Information Services, Annex 203. See also RFI 46 reply, question 2.

682 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

683 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

684 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

685 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

686 Form CO, paragraph D.326.

3.20.2.3. The Commission's assessment

(575) In the market investigation, the majority of the data vendors submit that they offer financial information (including Fundamentals Data) worldwide.[687] On the basis of the market investigation results and the evidence available to it and in line with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for Fundamentals Data is global or at least EEA-wide.

3.20.3. Conclusion

(576) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for Fundamentals Data (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.21. Public Filings

3.21.1. Relevant product market definition

(577) Public filings contain a collection of companies' filings documents comprising annual reports, insider trading filings, and other data.

(578) Both Parties supply public filings to customers. Mergent compiles filings from the US Security and Exchange Commission ("SEC"), the Canadian equivalent of SEC (SEDAR) and company annual reports. Refinitiv offers a wide range of company SEC and international filings through its datafeed and desktop products.[688]

3.21.1.1. Previous Commission decisions

(579) In Thomson Corporation/Reuters Group, the Commission identified a separate relevant product market for Public Filings.[689]

(580) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[690] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[691]

3.21.1.2. The Notifying Party's view

(581) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including Public Filings). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[692] According to the Notifying Party, the discrete content datasets are an input into the financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[693]

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687 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.
688 Form CO, paragraph D.382.
689 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 92ff and 110.
690 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
691 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
692 Form CO, paragraph D.291.
693 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

(582) While it contests the existence of a separate relevant market for Public Filings, the Notifying Party submitted market information specifically for this category of products.[694]

3.21.1.3. The Commission's assessment

(583) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that Public Filings constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(584) The market investigation does not provide any evidence that the relevant market definition for Public Filings should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

(585) *First*, the market investigation reveals that end-customers often purchase content sets (including Public Filings) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[695] This suggests that end-customers often consider Public Filings as complements to packaged solutions such as desktop services and datafeeds.

(586) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[696] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(587) The Commission's market investigation did not provide indications that the relevant market for Public Filings should be sub-segmented further.[697]

3.21.2. Relevant geographic market definition

3.21.2.1. Previous Commission decisions

(588) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets, including Public Filings, to be at least EEA-wide and probably global.[698]

3.21.2.2. The Notifying Party's view

(589) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including Public Filings, is global, or at least EEA-wide, in scope.[699]

3.21.2.3. The Commission's assessment

(590) In the market investigation, the majority of the data vendors submit that they offer financial information (including Public Filings) worldwide.[700] On the basis of the market investigation results and the evidence available to it and in line with the

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694 Form CO, Information Services, Annex 203. See also RFI 46 reply, question 2.

695 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

696 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

697 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

698 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

699 Form CO, paragraph D.326.

700 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.

Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for Public Filings is global or at least EEA-wide.

3.21.3. Conclusion

(591) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for Public Filings (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.22. Ownership Content Data

3.22.1. Relevant product market definition

(592) Ownership Content Data covers research on global security ownership available in the financial marketplace. It primarily covers global securities, current equity and fixed income ownership information data.

(593) Both Parties supply Ownership Content Data to customers. Mergent distributes US institutional and insider holding data as presented in SEC filings primarily to the academic marketplace. Refinitiv collates and distributes global ownership content sourced from more than 70 countries including sources such as SEC filings, international declarable stakes notifications, global mutual fund and ETF portfolios, UK share registers, and more, via its desktop and datafeed services.[701]

3.22.1.1. Previous Commission decisions

(594) In *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product market for Ownership Content Data.[702]

(595) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[703] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[704]

3.22.1.2. The Notifying Party's view

(596) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including Ownership Content Data). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[705] According to the Notifying Party, the discrete content datasets are an input into the financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[706]

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701 Form CO, paragraph D.379.

702 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 92ff and 110.

703 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

704 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

705 Form CO, paragraph D.291.

706 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

(597) While it contests the existence of a separate relevant market for Ownership Content Data, the Notifying Party submitted market information specifically for this category of products.[707]

3.22.1.3. The Commission's assessment

(598) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that Ownership Content Data constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(599) The market investigation does not provide any evidence that the relevant market definition for Ownership Content Data should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

(600) *First*, the market investigation reveals that end-customers often purchase content sets (including Ownership Content Data) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[708] This suggests that end-customers often consider Ownership Content Data as complements to packaged solutions such as desktop services and datafeeds.

(601) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[709] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(602) The Commission's market investigation did not provide indications that the relevant market for Ownership Content Data should be sub-segmented further.[710]

3.22.2. Relevant geographic market definition

3.22.2.1. Previous Commission decisions

(603) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets, including Public Filings, to be at least EEA-wide and probably global.[711]

3.22.2.2. The Notifying Party's view

(604) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including Ownership Content Data, is global, or at least EEA-wide, in scope.[712]

3.22.2.3. The Commission's assessment

(605) In the market investigation, the majority of the data vendors submit that they offer financial information (including Ownership Content Data) worldwide.[713] On the basis of the market investigation results and the evidence available to it and in line

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707 Form CO, Information Services, Annex 203.

708 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

709 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

710 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

711 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

712 Form CO, paragraph D.326.

713 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.

with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for Ownership Content Data is global or at least EEA-wide.

3.22.3. Conclusion

(606) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for Ownership Content Data (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.23. Funds Data

3.23.1. Relevant product market definition

(607) Funds Data relate to fund performance, returns, daily net asset values, risk statistics, benchmarks, asset information, distributions and historical data covering various funds, such as mutual funds, closed-ends funds, exchange-traded funds, and pension funds.

(608) Both Parties supply Funds Data to customers. Refinitiv's key product in this space is Lipper Feeds which provides fund holdings data, funds performance data, fund classifications, ratings, and analytical tools.[714] LSEG offers XTF.[715]

3.23.1.1. Previous Commission decisions

(609) In its decisional practice to date, the Commission has not previously examined Funds Data.

(610) However, for other types of financial data content datasets, the Commission found that "*discrete content sets cannot be substituted for one another since they respond to different and well defined needs of final customers"*.[716]

(611) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation showed that most end-customers continue to buy financial information in the form of discrete content sets.[717]

3.23.1.2. The Notifying Party's view

(612) The Notifying Party submits that the competition in the market for financial information products takes place between products sold as packaged solutions rather than between discrete content datasets.[718] According to the Notifying Party, the discrete content datasets (including Funds Data) are an input into the financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[719]

(613) While it contests the existence of a separate relevant market for Funds Data, the Notifying Party submitted market information specifically for these content sets.[720]

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714 RFI 46 reply, question 1, paragraph 23.
715 RFI 46 reply, question 1, paragraph 23.
716 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 44.
717 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
718 Form CO, paragraph D.291.
719 Form CO, paragraph D.293.
720 Form CO, Information Services, Annex 201. See also RFI 46 reply, question 2.

3.23.1.3. The Commission's assessment

(614) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that Funds Data constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(615) *First*, the market investigation reveals that end-customers often purchase content sets (including Funds Data) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[721] This suggests that end-customers often consider Funds Data as complements to packaged solutions such as desktop services and datafeeds.

(616) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[722] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(617) The Commission's market investigation did not provide indications that the relevant market for Funds Data should be sub-segmented further.[723]

3.23.2. Relevant geographic market definition

3.23.2.1. Previous Commission decisions

(618) In its decisional practice to date, the Commission has not previously examined the relevant geographic market definition for Funds Data. However, for other types of financial data content datasets, the Commission found that the relevant geographic market is at least EEA-wide and probably global in scope.[724]

3.23.2.2. The Notifying Party's view

(619) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including Funds Data, is global, or at least EEA-wide, in scope.[725]

3.23.2.3. The Commission's assessment

(620) On the basis of the market investigation results and the evidence available to it, the Commission considers that the geographic scope of the relevant market is global or at least EEA-wide in scope. The Commission takes this view for the following reasons.

(621) The market investigation does not provide any evidence that the relevant market definition for Funds Data should depart from the Commission's decision in *Thomson Corporation/Reuters Group*. In the market investigation, the majority of the data vendors submit that they offer financial information (including Funds Data)

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721 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

722 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

723 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

724 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 22 and Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

725 Form CO, paragraph D.326.

worldwide.[726] Internal documents of both LSEG and Refinitiv confirm that both Parties see the competitive landscape for Funds Data as worldwide[727] and [competitive analysis of LSEG].[728] However, in a Refinitiv internal document [competitive analysis of Refinitiv].[729]

3.23.3. Conclusion

(622) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for Funds Data (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.24. News

3.24.1. Relevant product market definition

(623) For the purposes of this Decision, News includes financial and business-related news content that provides investors with the information they need to make swift and intelligent investment decisions. News may be comprehensive or limited to a single country, certain asset classes or particular economic sectors. News services can be provided in English or other languages.

(624) Mergent distributes News which it sources from another provider, and is not active itself in the compilation of this content set. Refinitiv distributes News through its information services products including desktop services and non real-time datafeeds.[730]

3.24.1.1. Previous Commission decisions

(625) In *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product market for News.[731]

(626) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[732] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[733]

3.24.1.2. The Notifying Party's view

(627) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including News). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[734] According to the Notifying Party, the discrete content datasets are an input into the financial information products, comprised of many different content sets. Furthermore, the

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726 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.
727 [internal document], Doc ID 4189-32992 and [internal document], Doc ID 4991-28949.
728 [internal document], Doc ID 4189-2213.
729 [internal document], Doc ID 4991-28949.
730 Form CO, paragraphs D.371, D.658.
731 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 73 and 110.
732 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
733 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.
734 Form CO, paragraph D.291.

Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[735]

(628) While it contests the existence of a separate relevant market for News, the Notifying Party submitted market information specifically for this category of products.[736]

3.24.1.3. The Commission's assessment

(629) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that News constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(630) The market investigation does not provide any evidence that the relevant market definition for News should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

(631) *First*, the market investigation reveals that end-customers often purchase content sets (including News) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[737] This suggests that end-customers often consider News as complements to packaged solutions such as desktop services and datafeeds.

(632) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[738] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(633) The Commission's market investigation did not provide indications that the relevant market for News should be sub-segmented further.[739]

3.24.2. Relevant geographic market definition

3.24.2.1. Previous Commission decisions

(634) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets, including News, to be at least EEA-wide and probably global.[740]

3.24.2.2. The Notifying Party's view

(635) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including News, is global, or at least EEA-wide, in scope.[741]

3.24.2.3. The Commission's assessment

(636) In the market investigation, the majority of the data vendors submit that they offer financial information (including News) worldwide.[742] On the basis of the market

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735 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

736 Form CO, Information Services, Annex 203. See also RFI 46 reply, question 2.

737 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

738 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

739 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

740 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

741 Form CO, paragraph D.326.

investigation results and the evidence available to it and in line with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for News is global or at least EEA-wide.

3.24.3. Conclusion

(637) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for News (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.25. APA Data

3.25.1. Relevant product market definition

(638) Under Articles 20 and 21 MiFIR, investment firms shall publish information regarding their transactions through an approved publication arrangement ("APA"). An APA is a person authorised to provide the service of publishing trade reports on behalf of investment firms, thus ensuring compliance with MiFIR.[743] APA data contains information about volume, price and time of transactions, concluded outside a trading venue in financial instruments that are admitted to trading on a trading venue.

(639) Based on ESMA's register,[744] there are 25 entities today which are authorised as APAs. 6 of these entities are authorised as APAs by the UK Financial Conduct Authority ("FCA"), namely, LSE's TradEcho; Tradeweb; CBOE; Bloomberg; Abide Financial (owned by CME); and Trax (owned by MarketAxess).

3.25.1.1. Previous Commission decisions

(640) In its decisional practice to date, the Commission has not examined the generation and supply of APA data. However, in *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product markets for the discrete content sets identified in that case.[745]

(641) Moreover, as explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation showed that most end-customers continue to buy financial information in the form of discrete content sets.[746]

3.25.1.2. The Notifying Party's view

(642) The Notifying Party submits that the regulatory reporting services, including publication of APA data, are ancillary to the primary services offered by trading venues. The Notifying Party states that regulatory reporting services have very low commercial value and are offered by most of the large venues to the customers who use their trading platforms. Furthermore, the Notifying Party claims that, in general, the APAs do not charge third parties, such as data vendors, for the supply of APA data. LSEG does not commercialise the APA data it offers and Tradeweb does it to a limited extent.

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742 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.

743 See definition in Article 4(1)(52) of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, 12.6.2014, p. 349.

744 See https://registers.esma.europa.eu/publication/ (last accessed on 26 November 2020).

745 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 73 and 110.

746 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

(643) Nevertheless, taking into account UK Office of Fair Trading's decision regarding the acquisition of FSA's Transaction Reporting System by LSEG,[747] the Notifying Party identifies separate relevant markets for different regulatory reporting services, one of which being the generation and supply of of APA data.[748]

3.25.1.3. The Commission's assessment

(644) Contrary to the Notifying Party's claim, the Commission's market investigation indicates that there is a relevant market for the generation and supply of APA data, which is separate from the provision of trading services.

(645) *First*, a supplier of APA data needs a separate authorisation from a national regulatory authority in the EEA to generate and supply these data. This authorisation is independent from a supplier's operations as an execution venue offering trading services. ESMA's register includes 141 regulated market trading venues and 227 MTFs but only 25 APAs.[749]

(646) *Second*, end-customers may choose to purchase trading services from one supplier but use a different supplier as an APA. For example, in May 2019, LSEG's TradEcho had […] APA customers, […] of whom were not members of the LSE trading venue.[750]

(647) *Third*, the Parties' internal documents confirm that the generation and supply of APA data is considered as a separate market [competitive analysis of the Parties]. An LSEG presentation dated December 2018 referred to [competitive analysis of Refinitiv].[751] A Refinitiv presentation of [competitive analysis of Refinitiv].[752]

3.25.2. Relevant geographic market definition

3.25.2.1. Previous Commission decisions

(648) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets to be at least EEA-wide and probably global.[753] In *Blackstone/Thomson Reuters F&R*, the Commission considered that the geographic scope is a least EEA-wide, while ultimately leaving the definition open.[754]

3.25.2.2. The Notifying Party's view

(649) The Notifying Party submits that the relevant geographic market for the supply of regulatory reporting services, including the publishing of APA data is global, or at least EEA-wide, in scope.[755]

3.25.2.3. The Commission's assessment

(650) The market investigation did not provide any indication that the Notifying Party's view on the geographic scope is inappropriate.

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747 ME/5142/11, OFT decision on the anticipated acquisition by London Stock Exchange plc of the transaction reporting system business of the Financial Services Authority, 15 November 2011, paragraph 20.

748 Form CO, paragraph D.318 and also RFI 46.2 reply, paragraph 99.

749 See https://registers.esma.europa.eu/publication/ (last accessed on 26 November 2020).

750 Form CO, paragraph D.157.

751 [internal document], Doc ID 4189-39029, page 12.

752 [internal document], Doc ID 4257-37671, page 21.

753 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

754 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 22.

755 Form CO, paragraph D.319.

(651) Firstly, the dissemination of APA data is regulated at EU level. Subject to obtaining local authorisation, APAs can provide the same trade publication services across the EEA. The same requirements regarding the content and publication of APA data apply across all Member States.

(652) Furthermore, OTC trading of financial instruments, that triggers the reporting obligation, is offered at global or at least EEA-wide level. Nevertheless, the exact market definition can be left open, as no serious doubts arise under any plausible geographic market definition.

(653) On the basis of the market investigation results and the evidence available to it and in line with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for APA data is global or at least EEA-wide.

3.25.3. Conclusion

(654) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for APA data (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.26. Time Series of Economic Data

3.26.1. Relevant product market definition

(655) Time Series of economic data ("TS/E" data) concerns macroeconomic variables, such as GDP, unemployment, money supply, balance of trade figures and inflation rates. The data is made available in the form of individual data points, tracked over a period of years. The information is typically sourced from governmental bodies (national and supranational statistical offices or central banks) but can also include proprietary data such as data from research institutes.

(656) Both Parties supply TS/E datasets. Refinitiv is primarily active through its product Datastream. LSEG provides TS/E data through Mergent.[756]

3.26.1.1. Previous Commission decisions

(657) In *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product market for TS/E data.[757]

(658) As explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation contradicted the claim of the notifying party that financial data are typically bought as part of packaged solutions[758] and showed that most end-customers continue to buy financial information in the form of discrete content sets.[759]

3.26.1.2. The Notifying Party's view

(659) The Notifying Party disagrees with the segmentation based on each type of discrete content datasets (including TS/E data). The Notifying Party submits that the competition in the market for financial information products is between products sold as packaged solutions rather than between discrete content datasets.[760] According to

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756 Form CO, Information Services, Annex 203.

757 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 74ff and 110.

758 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

759 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

760 Form CO, paragraph D.291.

the Notifying Party, the discrete content datasets are an input into the financial information products, comprised of many different content sets. Furthermore, the Notifying Party indicates that there are limited data on the revenue, usage or market share per type of content dataset.[761]

(660) While it contests the existence of a separate relevant market for TS/E data, the Notifying Party submitted market information specifically for this category of products.[762]

3.26.1.3. The Commission's assessment

(661) On the basis of the market investigation results and in light of its decisional practice, the Commission concludes that TS/E data constitute a relevant market, separate from packaged solutions such as desktop services and datafeeds. The Commission takes this view for the following reasons.

(662) The market investigation does not provide any evidence that the relevant market definition for TS/E data should depart from the Commission's decision in *Thomson Corporation/Reuters Group*.

(663) *First*, the market investigation reveals that end-customers often purchase content sets (including TS/E data) on a standalone basis i.e., as an add-on to a packaged solution, including to a desktop solution or a non-real time datafeed.[763] This suggests that end-customers often consider TS/E data as complements to packaged solutions such as desktop services and datafeeds.

(664) *Second*, the majority of the data vendors submit that they offer financial information both as packaged solutions and as discrete content sets.[764] The fact that there are commercial offers of both types of products from the same data vendor confirms that several end-customers prefer to purchase discrete content sets on a standalone basis e.g., to integrate into their internal applications and/or use as an "add-on" to packaged solutions from a different supplier.

(665) The Commission's market investigation did not provide indications that the relevant market for TS/E data should be sub-segmented further.[765]

3.26.2. Relevant geographic market definition

3.26.2.1. Previous Commission decisions

(666) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets, including TS/E data, to be at least EEA-wide and probably global.[766]

3.26.2.2. The Notifying Party's view

(667) The Notifying Party submits that the relevant geographic market for the supply of financial information products, including TS/E data, is global, or at least EEA-wide, in scope.[767]

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761 Form CO, paragraph D.293. See also RFI 46 reply, question 2.

762 Form CO, Information Services, Annex 203. See also RFI 46 reply, question 2.

763 Question 83, Questionnaire 9 to information services end-customers, Doc ID 6480.

764 Question 97, Questionnaire 8 to data vendors, Doc ID 6479.

765 Questions 94ff, Questionnaire 8 to data vendors, Doc ID 6479 and Questions 53ff, Questionnaire 9 to information services end-customers, Doc ID 6480.

766 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

767 Form CO, paragraph D.326.

3.26.2.3. The Commission's assessment

(668) In the market investigation, the majority of the data vendors submit that they offer financial information (including TS/E data) worldwide.[768] On the basis of the market investigation results and the evidence available to it and in line with the Commission's decisional practice, the Commission considers that the geographic scope of the relevant market for TS/E is global or at least EEA-wide.

3.26.3. Conclusion

(669) For the purposes of this Decision, the Commission concludes that there is a separate relevant market for TS/E data (different for the markets for packaged solutions, e.g., desktop services) and that this market is worldwide or at least EEA-wide in scope.

3.27. Order management systems

3.27.1. Relevant product market definition

(670) Order management systems ("OMS") are tools used in the workflow for the trading of financial instruments. OMS display venue data on users' screens to inform their trading strategy. They also communicate with buy-side traders' execution management systems ("EMS") to provide instructions to trade.[769]

(671) Refinitiv offers an OMS for buy-side customers called AlphaDesk, which delivers real-time order, portfolio and operations management tools to portfoli and /fund managers. LSEG is not active in OMSs.

3.27.1.1. Previous Commission decisions

(672) The Commission has not previously examined the relevant product market definition regarding OMS.

3.27.1.2. The Notifying Party's view

(673) The Notifying Party considers that OMS fall within the broader "IT services and software" space, although it acknowledges that they provide different functionalities and have different use cases than other products in this space (e.g., EMS or market data platforms).[770] The Notifying Party submits that it is not necessary to conclusively define the relevant product market since no concerns arise on any basis.[771]

3.27.1.3. The Commission's assessment

(674) In the Commission's market investigation, there are indications that OMS form part of a product market, separate from other markets such as EMS or desktop services:

(a) Competitors often market their OMS separately from other solutions,[772] although sometimes OMS are offered in conjunction with EMS. Moreover,

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768 Question 96, Questionnaire 8 to data vendors, Doc ID 6479.

769 Form CO, paragraphs D.473 and D.604.

770 Form CO, Information Services, Annex 188, paragraph 1.

771 Form CO, paragraph D.316.

772 See for instance Refinitiv (https://www refinitiv.com/en/trading-solutions/alphadesk-order-management, last accessed on 17 November 2020) or SS&C Tech (https://www.ezesoft.com/solutions/eze-investment-suite-overview/trade-order-management-system, last accessed on 17 November 2020) .

there is little overlap among the top providers of OMS compared to the top providers of EMS at a global level;[773]

(b) According to an internal presentation last updated in April 2020, Refinitiv sees OMS and EMS as belonging to two distinct markets, considering separately the company's positioning in each market;[774] and

(c) Regarding OMS and desktop services, the Commission notes that they are complementary. While desktop services allow end-customers to visualise and manipulate financial data for a variety of purposes (e.g. trading, benchmarking, modelling, etc.), the function of OMS is more specialised, and only comes into effect when an end-customer wishes to conclude a trade. Refinitiv's OMS Alphadesk is available as an application in Refinitiv's desktop service (Eikon) but it can also be licensed on a standalone basis.[775]

(675) However, public statements by Refinitiv also suggest that the boundaries between OMS and EMS might be blurring in the future. In July 2019, the managing director and co-head of trading at Refinitiv stated: "*Clients are starting to move away from this whole best of breed approach, where they take an OMS from one place, do a[n] EMS here, do data from another place, because clients are focused on a more seamless workflow... They prefer today to deal with a single vendor for most things because it is simple for them*". He added that end-customers are switching towards a "*one-stop-shop*", with a "*seamless OMS to EMS to PMS solution*".[776]

(676) The Commission takes the view that the precise market definition for OMS can be left open as the proposed Transaction does not raise competition concerns based on the narrowest possible product market definition (namely, a relevant product market including only OMS).[777]

3.27.2. Relevant geographic market definition

3.27.2.1. Previous Commission decisions

(677) The Commission has not previously examined the relevant geographic market definition regarding OMS.

3.27.2.2. The Notifying Party's view

(678) The Notifying Party submits that the market for OMS is global in scope, which is consistent with the approach adopted by the Commission in previous decisions in which markets for discrete financial data content have been found to be at least EEA-wide and probably world-wide in scope.[778]

3.27.2.3. The Commission's assessment

(679) The Commission agrees that there are indications that the scope of the OMS market is global or at least EEA-wide in scope. OMS is typically accessed by end-customers through desktop services, a relevant market whose geographic scope is worldwide. Refinitiv's internal [internal document] concerning Alphadesk (an OMS product)

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773 Form CO, Information Services, Annex 188.

774 "Refinitiv Trading Business", last updated on 15 April 2020, Doc ID 4991-17745, page 8.

775 Form CO, paragraph D.604.

776 See https://a-teaminsight.com/alphadesk-acquisition-a-part-of-an-overall-buy-side-strategy-at-refinitiv-says-chin/?brand=tti (last accessed on 24 July 2019).

777 See sections 4.5.11, 4.5.12, 4.5.13, and 4.5.36.

778 Form CO, paragraph D.323.

[competitive analysis of Refinitiv].[779] Notwithstanding this, the Commission notes that OMS players like SimCorp and IHS Markit have a significantly stronger footprint in the EEA compared to their position in the worldwide market.[780]

3.27.3. Conclusion

(680) For the purposes of this Decision, the Commission takes the view that the precise market definition for OMS can be left open as the proposed Transaction does not raise competition concerns based on the narrowest possible product market definition (namely, a relevant product market including only OMS).[781] The geographic scope of the market is worldwide or at least EEA-wide.

3.28. Execution management systems

3.28.1. Relevant product market definition

(681) EMS are tools used in the workflow for the trading of financial instruments. EMS display real-time market data and provide analytics. They are used by buy-side traders of hedge funds and asset managers to design and execute orders in the most efficient and cost-effective manner.[782]

(682) Refinitiv offers an EMS product called REDI, which enables buy-side traders to design and execute orders by connecting them to brokers for trading in equities, futures, and options. Refinitiv's REDI is only available as part of Refinitiv's desktop service (Eikon). LSEG is not active in EMS.

3.28.1.1. Previous Commission decisions

(683) The Commission has not previously examined the relevant product market definition regarding EMS.

3.28.1.2. The Notifying Party's view

(684) The Notifying Party considers that EMS fall within the broader "IT services and software" space, although it acknowledges that they provide different functionalities and have different use cases than other products in this space (e.g., OMS or market data platforms).[783] The Notifying Party submits that it is not necessary to conclusively define the relevant product market since no concerns arise on any basis.[784]

3.28.1.3. The Commission's assessment

(685) There are indications that EMS form part of a product market, separate from other markets such as OMS or desktop services:

(a) Competitors often market their EMS separately from other solutions,[785] although sometimes they are offered in conjunction with OMS systems. Moreover, there is little overlap among the top competitors in EMS compared

779 [internal document], Doc ID 4151-33876.
780 Form CO, Information Services, Annex 188.
781 See sections 4.5.11, 4.5.12, 4.5.13, and 4.5.36.
782 Form CO, D.473 and D.605.
783 Form CO, Information Services, Annex 188, paragraph 1.
784 Form CO, paragraph D.316.
785 See for instance Refinitiv (https://solutions.refinitiv.com/redi-execution-management/, last accessed on 17/11/2020) or Flextrade (https://flextrade.com/sell-side/flextrader-ems/, last accessed on 17/11/2020) .

to the top competitors of OMS at a global level[786] (the relationship between EMS and OMS products is also discussed in recitals (674) above); and

(b) Regarding EMS and desktop services, the Commission notes that they are complementary. Refinitiv's EMS is only available as part of Refinitiv's desktop service (Eikon) but this is not the case for all EMS products. Indeed, several providers of EMS products do not offer desktop services at all. Moreover, there are Eikon variants which do not include Refinitiv's EMS.

(686) The Commission takes the view that the precise market definition for EMS can be left open as the proposed Transaction does not raise competition concerns based on the narrowest possible product market definition (namely, a relevant product market including only EMS).[787]

3.28.2. Relevant geographic market definition

3.28.2.1. Previous Commission decisions

(687) The Commission has not previously examined the relevant product market definition regarding EMS.

3.28.2.2. The Notifying Party's view

(688) The Notifying Party submits that the market for EMS is global in scope, which is consistent with the approach adopted by the Commission in previous decisions in which markets for discrete financial data content have been found to be at least EEA-wide and at probably world-wide in scope.[788]

3.28.2.3. The Commission's assessment

(689) The Commission notes that there are indications that the scope of the EMS market is global or at least EEA-wide in scope. EMS is typically accessed by end-customers through desktop services, a relevant market whose geographic scope is worldwide. With the exception of Broadridge PROactive Broker which offers services in the UK and in Europe, most EMS providers seem to be active worldwide.[789]

3.28.3. Conclusion

(690) For the purposes of this Decision, the Commission takes the view that the precise market definition for EMS can be left open as the proposed Transaction does not raise competition concerns based on the narrowest possible product market definition (namely, a relevant product market including only EMS).[790] The geographic scope of the market is worldwide or at least EEA-wide.

3.29. Regulatory Information Services

3.29.1. Relevant product market definition

(691) Regulatory information services ("RISs") facilitate the dissemination of regulatory announcements by listed companies. The Transparency Directive[791] requires issuers

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786 Form CO, Information Services, Annex 188, Tables 1 and 3.

787 See sections 4.5.11, 4.5.12, 4.5.13, and 4.5.36.

788 Form CO, paragraph D.323.

789 See https://www.celent.com/vendormatch/search?search_id=528771255 (last accessed on 29 November 2020).

790 See sections 4.5.11, 4.5.12, 4.5.13, and 4.5.36.

791 See art. 1 of Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose

to release certain periodic and ongoing regulated information to the market. The UK regulatory authority, the FCA, approves Primary Information Providers ("PIPs"), which can offer RISs. The PIPs disseminate the regulatory announcements to news vendors, which then bundle regulatory information from various sources for consumption by their users.

(692) LSEG is authorised as a PIP with respect to issuers listed on the London Stock Exchange. LSEG provides regulatory announcements through Regulatory News Service (RNS). Refinitiv is not authorised as a PIP.

3.29.1.1. Previous Commission decisions

(693) In its decisional practice to date, the Commission has not examined the relevant product market definition for the dissemination of regulatory information. However in *Thomson Corporation/Reuters Group*, the Commission identified a separate relevant product markets for the discrete content sets identified in that case.[792]

(694) Moreover, as explained in Section 3.15 above, in *Blackstone/Thomson Reuters F&R*, the Commission's market investigation showed that most end-customers continue to buy financial information in the form of discrete content sets.[793]

3.29.1.2. The Notifying Party's view

(695) Taking into account the Commission's assessment in past cases, the Notifying Party identified discrete content sets and offerings, one of which was regulatory information services. The Notifying Party considers that the generation of regulatory information takes place separately to the collation and distribution of the data as packaged solutions.

(696) The Notifying Party did not submit a specific view with respect to the precise product market definition of regulatory information services and any possible sub-segmentations, as it argued that the Transaction does not give rise to competition concerns under any segmentation.[794]

3.29.1.3. The Commission's assessment

(697) The Commission notes that there are indications of a separate market for RIS for the UK. End-customers responding to the market investigation indicated limited substitutability for the main UK RIS provider, currently LSEG's RNS, with other suppliers in the EEA. One customer explains, "*We see different local providers for different countries. Often the local primary exchanges offer such services…*" Moreover, providers are approved at the national level by the relevant national competent authority.[795] As such, the Commission considers the relevant product market for the purposes of the present case to be RIS for the UK.

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securities are admitted to trading on a regulated market and amending Directive 2001/34/EC, OJ L 390, 31.12.2004, p. 38–57.

792 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraphs 73 and 110.

793 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 17.

794 Form CO, paragraphs D.309 and D.331. RFI 46.2 reply, paragraph 99.

795 Question 162, Questionnaire 9 to information services end-customers, Doc ID 6480.

3.29.2. Relevant geographic market definition

3.29.2.1. Previous Commission decisions

(698) In *Thomson Corporation/Reuters Group*, the Commission considered the geographic scope of content sets to be at least EEA-wide and probably global.[796] In *Blackstone/Thomson Reuters F&R*, the Commission considered that the geographic scope is a least EEA-wide, while ultimately leaving the definition open.[797]

3.29.2.2. The Notifying Party's view

(699) The Notifying Party submits that the relevant geographic market for the supply of financial information products is global, or at least EEA-wide, in scope.[798]

3.29.2.3. The Commission's assessment

(700) The market investigation did not provide any indication that the Notifying Party's view on the geographic scope is inappropriate.

(701) According to the market investigation, the vast majority of data vendors distribute regulatory information and set prices at worldwide level. Furthermore, the majority of end-customers also compare prices at worldwide or EEA level.[799] The Commission notes that while RIS for UK is a separate market, customer demand for RIS relating to UK issuers is linked to investment in financial instruments issued by UK issuers and thus is wider than the UK market.

(702) Lastly, as for APA data, the requirement for issuers to release certain periodic and ongoing regulated information to the market is set at EU level by the Transparency Directive.

(703) On the basis of the market investigation results and the evidence available to it, the Commission considers that the geographic scope of the relevant market for RISs is global or at least EEA-wide.

3.29.3. Conclusion

(704) For the purposes of the present case, the Commission concludes that there is a relevant market of RIS for the UK, which is at least EEA-wide in scope.

4. COMPETITIVE ASSESSMENT

(705) Under Article 2(2) and (3) of the Merger Regulation, the Commission must assess whether a proposed concentration would significantly impede effective competition in the internal market or in a substantial part of it, in particular through the creation or strengthening of a dominant position.

(706) In this respect, a merger may entail horizontal and/or non-horizontal (namely, vertical or conglomerate) effects. Horizontal effects are those deriving from a concentration where the undertakings concerned are actual or potential competitors of each other in one or more of the relevant markets concerned. Vertical effects are those deriving from a concentration where the undertakings concerned are active on

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796 Commission decision of 19 February 2008 in Case M.4726, *Thomson/Reuters*, paragraph 106.

797 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 22.

798 Form CO, paragraph D.319.

799 Question 235, Questionnaire 8 to data vendors, Doc ID 6479. Question 163, Questionnaire 9 to information services end-customers, Doc ID 6480.

different or multiple levels of the supply chain. Conglomerate effects are those deriving from a concentration where the undertakings concerned are in a relationship which is neither horizontal nor vertical, but are active on closely related markets. A concentration may involve all three types of effects. In such a case, the Commission will appraise horizontal and non-horizontal effects in accordance with the guidance set out in the relevant notices, that is to say the Horizontal Merger Guidelines[800] and the Non-Horizontal Merger Guidelines.[801]

(707) In assessing the competitive effects of a merger, the Commission compares the competitive conditions that would result from the notified merger with the conditions that would have prevailed without the merger. In most cases the competitive conditions existing at the time of the merger constitute the relevant comparison for evaluating the effects of a merger. However, in some circumstances, the Commission may take into account future changes to the market that can reasonably be predicted.[802]

4.1. Analytical Framework – Horizontal non-coordinated effects

(708) A merger giving rise to a significant impediment of effective competition may do so as a result of the creation or strengthening of a dominant position in the relevant markets. Moreover, mergers in oligopolistic markets involving the elimination of important constraints that the parties previously exerted on each other, together with a reduction of competitive pressure on the remaining competitors, may also result in a significant impediment to effective competition, even in the absence of dominance.[803]

(709) In fact, the Horizontal Merger Guidelines describe horizontal non-coordinated effects as follows: "*A merger may significantly impede effective competition in a market by removing important competitive constraints on one or more sellers who consequently have increased market power. The most direct effect of the merger will be the loss of competition between the merging firms. For example, if prior to the merger one of the merging firms had raised its price, it would have lost some sales to the other merging firm. The merger removes this particular constraint. Non-merging firms in the same market can also benefit from the reduction of competitive pressure that results from the merger, since the merging firms' price increase may switch some demand to the rival firms, which, in turn, may find it profitable to increase their prices. The reduction in these competitive constraints could lead to significant price increases in the relevant market*."[804]

(710) The Horizontal Merger Guidelines list a number of factors which may influence whether or not significant horizontal non-coordinated effects are likely to result from a merger, such as the large market shares of the merging firms, the fact that the merging firms are close competitors, the limited possibilities for customers to switch suppliers, or the fact that the merger would eliminate an important competitive force.[805] That list of factors applies equally regardless of whether a merger would create or strengthen a dominant position, or would otherwise significantly impede

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800 Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings ("Horizontal Merger Guidelines"), OJ C31, 5.2.2004, paragraph 5.

801 Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings ("Non-Horizontal Merger Guidelines"), OJ C265, 18.10.2008.

802 Horizontal Merger Guidelines, paragraph 9; Non-Horizontal Merger Guidelines, paragraph 20.

803 Horizontal Merger Guidelines, paragraph 25.

804 Horizontal Merger Guidelines, paragraph 24.

805 Horizontal Merger Guidelines, paragraphs 27 and following.

effective competition due to non-coordinated effects. Furthermore, not all of these factors need to be present to make significant non-coordinated effects likely and it is not an exhaustive list.[806]

(711) Finally, the Horizontal Merger Guidelines describe a number of factors, which could counteract the harmful effects of the merger on competition, including the likelihood of buyer power, the entry of new competitors on the market, and efficiencies.

4.2. Analytical Framework – Vertical non-coordinated effects

(712) A merger between companies which operate at different levels of the supply chain may significantly impede effective competition if such merger gives rise to foreclosure.[807] Foreclosure occurs where actual or potential competitors' access to supplies or markets is hampered or eliminated as a result of the merger, thereby reducing those companies' ability and/or incentive to compete.[808] Such foreclosure may discourage entry or expansion of competitors or encourage their exit.[809]

(713) The Non-Horizontal Merger Guidelines distinguish between two forms of foreclosure. Input foreclosure occurs where the merger is likely to raise the costs of downstream competitors by restricting their access to an important input. Customer foreclosure occurs where the merger is likely to foreclose upstream competitors by restricting their access to a sufficient customer base.[810]

(714) Pursuant to the Non-Horizontal Merger Guidelines, input foreclosure arises where, post-merger, the new entity would be likely to restrict access to the products or services that it would have otherwise supplied absent the merger, thereby raising its downstream rivals' costs by making it harder for them to obtain supplies of the input under similar prices and conditions as absent the merger.[811]

(715) For input foreclosure to be a concern, the merged entity should have a significant degree of market power in the upstream market. Only when the merged entity has such a significant degree of market power, can it be expected that it will significantly influence the conditions of competition in the upstream market and thus, possibly, the prices and supply conditions in the downstream market.[812]

(716) In assessing the likelihood of an anticompetitive input foreclosure scenario, the Commission examines, first, whether the merged entity would have, post-merger, the ability to substantially foreclose access to inputs, second, whether it would have the incentive to do so, and third, whether a foreclosure strategy would have a significant detrimental effect on competition downstream.[813]

(717) Pursuant to the Non-Horizontal Merger Guidelines, customer foreclosure may occur when a supplier integrates with an important customer in the downstream market and because of this downstream presence, the merged entity may foreclose access to a sufficient customer base to its actual or potential rivals in the upstream market (the input market) and reduce their ability or incentive to compete, which in turn, may raise downstream rivals' costs by making it harder for them to obtain supplies of the

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806 Horizontal Merger Guidelines, paragraph 26.
807 Non-Horizontal Merger Guidelines, paragraphs 17-18.
808 Non-Horizontal Merger Guidelines, paragraph 18.
809 Non-Horizontal Merger Guidelines, paragraph 29.
810 Non-Horizontal Merger Guidelines, paragraph 30.
811 Non-Horizontal Merger Guidelines, paragraph 31.
812 Non-Horizontal Merger Guidelines, paragraph 35.
813 Non-Horizontal Merger Guidelines, paragraph 32.

input under similar prices and conditions as absent the merger. This may allow the merged entity profitably to establish higher prices on the downstream market.[814]

(718) For customer foreclosure to be a concern, a vertical merger must involve a company which is an important customer with a significant degree of market power in the downstream market. If, on the contrary, there is a sufficiently large customer base, at present or in the future, that is likely to turn to independent suppliers, the Commission is unlikely to raise competition concerns on that ground.[815]

(719) In assessing the likelihood of an anticompetitive customer foreclosure scenario, the Commission examines, first, whether the merged entity would have the ability to foreclose access to downstream markets by reducing its purchases from its upstream rivals, second, whether it would have the incentive to reduce its purchases upstream, and third, whether a foreclosure strategy would have a significant detrimental effect on consumers in the downstream market.[816]

4.3. Market Shares

4.3.1. Trading of Cash Bonds

4.3.1.1. Electronic Trading of European Government Bonds

(720) Table 3 below shows the market shares of the Parties and their main competitors in the market for EGB trading services in the EEA.[817] The market shares are based on the notional value traded, and more specifically on the average daily trading volumes ("ADTV").[818]

Table 3

Electronic trading of EGBs by ADTV (EEA-wide)								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG combined	[…]	[30-40]	[…]	[30-40]	[…]	[20-30]	[…]	[20-30]
LSEG (MTS Cash)	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]	[…]	[10-20]
LSEG (MTS BondVision)	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]
LSEG (MOT)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (EuroTLX)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]

814 Non-Horizontal Merger Guidelines, paragraph 58.

815 Non-Horizontal Merger Guidelines, paragraph 61.

816 Non-Horizontal Merger Guidelines, paragraph 59.

817 The Notifying Party indicated that (i) the Parties understand that Celent reports define the geographic EEA market by the location of the trading venues but (ii) it cannot be ruled out that some participants may include in the data they communicate to Celent European bond volumes traded on their non-European venues. According to the Notifying Party, these volumes (traded on non-European venues) are in any event small and unlikely to have a significant impact on market shares.

818 The Notifying Party was unable to provide value-based market shares (i.e. market shares based on the revenues of trading venues from the provision of EGB trading services). See Form CO, paragraph B.187.

Electronic trading of EGBs by ADTV (EEA-wide)								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (EXTRAMOT)	[…]	n/a	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Refinitiv combined	[…]	[20-30]	[…]	[20-30]	[…]	[30-40]	[…]	[40-50]
Refinitiv (Tradeweb)	[…]	[20-30]	[…]	[20-30]	[…]	[30-40]	[…]	[40-50]
Refinitiv (Dealerweb)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Parties combined	[…]	***[60-70]***	[…]	***[60-70]***	[…]	***[60-70]***	[…]	***[60-70]***
Bloomberg	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]
BrokerTec	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
'Exchanges'[819]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Single-dealer[820]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Senaf	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Retail platforms w/o LSEG[821]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
MarketAxess	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
DBAG (Eurex)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
BGC/GFI	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**

819 The Notifying Party submitted that (i) it is unclear which platforms are included in the "Exchanges" category of the Celent reports, (ii) the Parties do not have any venue grouped under this category, and (iii) it expects that this category may include venues such as Euronext's bonds platform, SIX, HDAT, and the smaller regional exchanges (Form CO, Cash Bonds Chapter, footnote 72).

820 Single-dealer platforms ("SDPs") are platforms owned by sell-side participants that allow a buy-side participant to trade directly with a single dealer counterparty on a fully disclosed basis. The Commission notes that (i) the Notifying Party included SIs within its definition SDPs in the Form CO, while (ii) as mentioned in recitals (44)-(45), the Commission considers that SIs are not part of the same product market than providers of electronic EGB trading services.

821 As explained in footnote 30, retail platforms are trading venues operated for retail trades, i.e. trades with retail clients. A retail client typically refers to a non-professional client, individual or a corporate, of limited size with limited investment experiences. Refinitiv does not own a retail platform for EGB trading.

D2C electronic trading of EGBs by ADTV (EEA-wide)								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG combined	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]
LSEG (MTS BondVision)	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]	[…]	[5-10]
LSEG (MOT)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (EuroTLX)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (EXTRAMOT)	[…]	n/a	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Refinitiv (Tradeweb)	[…]	***[40-50]***	[…]	***[40-50]***	[…]	***[40-50]***	[…]	***[40-50]***
Parties combined	[…]	***[50-60]***	[…]	***[50-60]***	[…]	***[60-70]***	[…]	***[60-70]***
Bloomberg	[…]	[30-40]	[…]	[30-40]	[…]	[30-40]	[…]	[30-40]
Single-dealer[822]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Retail platforms w/o LSEG[823]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
MarketAxess	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**
D2D electronic trading of EGBs by ADTV (EEA-wide)								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (MTS Cash)	[…]	***[70-80]***	[…]	***[70-80]***	[…]	***[70-80]***	[…]	***[70-80]***
Refinitiv (Dealerweb)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Parties combined	[…]	***[70-80]***	[…]	***[70-80]***	[…]	***[70-80]***	[…]	***[70-80]***
BrokerTec	[…]	[5-10]	[…]	[10-20]	[…]	[5-10]	[…]	[10-20]
"Exchanges"[824]	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]

822 Single-dealer platforms ("SDPs") are platforms owned by sell-side participants that allow a buy-side participant to trade directly with a single dealer counterparty on a fully disclosed basis. The Commission notes that (i) the Notifying Party included SIs within its definition SDPs in the Form CO, while (ii) as mentioned in recitals (44)-(45), the Commission considers that SIs are not part of the same product market than providers of electronic EGB trading services.

823 As explained in footnote 30, retail platforms are trading venues operated for retail trades, i.e. trades with retail clients. A retail client typically refers to a non-professional client, individual or a corporate, of limited size with limited investment experiences. Refinitiv does not own a retail platform for EGB trading.

D2D electronic trading of EGBs by ADTV (EEA-wide)								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
Senaf	[…]	[0-5]	[…]	[5-10]	[…]	[0-5]	[…]	[0-5]
DBAG (Eurex)	[…]	[0-5]	[…]	[5-10]	[…]	[0-5]	[…]	[0-5]
BGC/GFI	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**

Source: Form CO, Cash Bonds Chapter, Tables 14 and 15, as updated by RFI 13 reply, question 28 and RFI 19 reply, question 5.

(721) The Parties confirmed that their worldwide shares in these markets do not significantly differ from their EEA-wide market shares.

4.3.1.2. Trading of European non-government bonds

Table 4

D2D trading of European non-government bonds by ADTV[825] in the EEA								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (MTS Cash)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Dealerweb	[…]	[20-30]	[…]	[20-30]	[…]	[10-20]	[…]	[10-20]
Combined	[…]	***[20-30]***	[…]	***[20-30]***	[…]	***[10-20]***	[…]	***[10-20]***
BGC/GFI	[…]	[30-40]	[…]	[40-50]	[…]	[40-50]	[…]	[40-50]
ICAP*	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]
Voice (other)	[…]	[10-20]	[…]	[5-10]	[…]	[10-20]	[…]	[10-20]
"Exchanges"	[…]	n/a	[…]	n/a	[…]	[5-10]	[…]	[5-10]
Tullet	[…]	[10-20]	[…]	[5-10]	[…]	[0-5]	[…]	[0-5]
Creditex	[…]	[0-5]	[…]	n/a	[…]	n/a	[…]	n/a
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**

Source: RFI 13 reply, question 28, Cash Bonds 2019 update.

824 The Notifying Party submitted that (i) it is unclear which platforms are included in the "Exchanges" category of the Celent reports, (ii) the Parties do not have any venue grouped under this category, and (iii) it expects that this category may include venues such as Euronext's bonds platform, SIX, HDAT, and the smaller regional exchanges (Form CO, Cash Bonds Chapter, footnote 72).

825 Average daily trading volumes.

Table 5

D2C trading of European non-government bonds by ADTV in the EEA								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (MTS BondVision)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (EuroTLX)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (MOT)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (EXTRAMOT)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Tradeweb Institutional	[…]	[10-20]	[…]	[10-20]	[…]	[5-10]	[…]	[5-10]
Combined	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]
Voice (other)	[…]	[40-50]	[…]	[40-50]	[…]	[40-50]	[…]	[40-50]
Bloomberg	[…]	[20-30]	[…]	[30-40]	[…]	[30-40]	[…]	[30-40]
MarketAxess	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]
Retail platforms w/o LSEG	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Single-dealer	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Liquidnet	[…]	n/a	[…]	n/a	[…]	[0-5]	[…]	[0-5]
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**

Source: RFI 13 reply, question 28, Cash Bonds 2019 update.

Table 6

D2D electronic trading of European non-government bonds by ADTV in the EEA								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (MTS Cash)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Dealerweb	[…]	[20-30]	[…]	[20-30]	[…]	[10-20]	[…]	[10-20]
Combined	[…]	***[20-30]***	[…]	***[30-40]***	[…]	[10-20]	[…]	[10-20]
BGC/GFI	[…]	[40-50]	[…]	[40-50]	[…]	[50-60]	[…]	[40-50]
TP ICAP*	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]
"Exchanges"	[…]	n/a	[…]	n/a	[…]	[10-20]	[…]	[10-20]
Creditex	[…]	[0-5]	[…]	n/a	[…]	n/a	[…]	n/a
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100,0**

Source: RFI 13 reply, question 28, Cash Bonds 2019 update.

Table 7

D2C electronic trading of European non-government bonds by ADTV in the EEA								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (MTS BondVision)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]

D2C electronic trading of European non-government bonds by ADTV in the EEA								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	ADTV (EUR bn)	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**	**ADTV (EUR bn)**	**Share (%)**
LSEG (EuroTLX)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (MOT)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
LSEG (EXTRAMOT)	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Tradeweb Institutional	[…]	[20-30]	[…]	[20-30]	[…]	[10-20]	[…]	[10-20]
Combined	[…]	***[20-30]***	[…]	***[20-30]***	[…]	***[20-30]***	[…]	***[10-20]***
Bloomberg	[…]	[50-60]	[…]	[50-60]	[…]	[60-70]	[…]	[60-70]
MarketAxess	[…]	[10-20]	[…]	[10-20]	[…]	[5-10]	[…]	[5-10]
Retail platforms w/o LSEG	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Single-dealer	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Liquidnet	[…]	n/a	[…]	n/a	[…]	[0-5]	[…]	[0-5]
Total	[…]	**100.0**	[…]	**100.0**	[…]	**100.0**	[…]	**100,0**

Source: RFI 13 reply, question 28, Cash Bonds 2019 update.

4.3.2. *Clearing of Cash Bonds*

Table 8

CCP clearing of D2D-traded cash bonds in the EEA						
	2017		**2018**		**2019**	
Provider	**Nominal value of trades cleared (EUR bn)**	**Share (%)**	**Nominal value of trades cleared (EUR bn)**	**Share (%)**	**Nominal value of trades cleared (EUR bn)**	**Share (%)**
LSEG (LCH SA)	[…]	[60-70]%	[…]	[60-70]%	[…]	[70-80]%
LSEG (LCH Ltd)	[…]	[5-10]%	[…]	[5-10]%	[…]	[0-5]%
LSEG (CC&G)	[…]	[20-30]%	[…]	[20-30]%	[…]	[20-30]%
Total LSEG	[…]	***[90-100]%***	[…]	***[90-100]%***	[…]	***[90-100]%***
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
CCP Austria						
KDPW						
Keler						
Nasdaq OMX						
Total	[…]	**100%**	[…]	**100%**	[…]	**100%**

Source: RFI 13 reply, question 28, Cash bonds 2019 update.

4.3.3. Trading of Financial derivatives

4.3.3.1. Trading of Over-The-Counter Interest-Rate Derivatives

(722) Table 9 to Table ***32*** below show the market shares of Refinitiv's Tradeweb and Dealerweb and its main competitors in global and EEA-wide, segmented (i) between OTC IRD D2C and D2D trading markets, (ii) by type of instrument (IRS, OIS and FRA) and (iii) by currency (EUR, USD, GBP, CAD, AUD, JPY and CHF).

Table 9

Market shares for OTC D2C IRDs trading at the global level								
Trading venue	**2016**		**2017**		**2018**		**2019**	
	D2C		**D2C**		**D2C**		**D2C**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional value traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional value traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional value traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional value traded (EUR bn)**
Tradeweb	[10-20]%	[5-10]%	[10-20]%	[10-20]%	[20-30]%	[10-20]%	[20-30]%	[20-30]%
Bloomberg	[10-20]%	[5-10]%	[10-20]%	[5-10]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
TrueEx	[0-5]%	[5-10]%	[0-5]%	[10-20]%	[0-5]%	[5-10]%	[0-5]%	[0-5]%
Voice	[70-80]%	[70-80]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Form CO, paragraphs C.V. 144 and 145 as updated by RFI 13 reply, question 28.

Table 10

Market shares for OTC D2D IRDs trading at the global level								
Trading venue	2016		2017		2018		2019	
	D2D		D2D		D2D		D2D	
	Share (%) based on number of trades (thousands)	Share (%) based on notional value traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional value traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional value traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional value traded (EUR bn)
Dealerweb	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
BGC	[10-20]%	[5-10]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
GFI	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
IGDL	[50-60]%	[50-60]%	[20-30]%	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
NEX	[0-5]%	[0-5]%	[20-30]%	[20-30]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Tradition	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
TP	[20-30]%	[20-30]%	[20-30]%	[30-40]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Form CO, paragraphs C.V. 149 and 150 as updated by RFI 13 reply, question 28.

Table 11

Market shares for OTC D2C IRDs trading at EEA-wide level				
Trading venue	2018		2019	
	D2C		D2C	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Tradeweb	[10-20]%	[20-30]%	[10-20]%	[20-30]%
Bloomberg	[20-30]%	[10-20]%	[10-20]%	[10-20]%
TrueEx	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**

Source: Form CO, paragraphs C.V. 159 and 160 as updated by RFI 13 reply, question 28.

Table 12

Market shares for OTC D2D IRDs trading at EEA-wide level				
Trading venue	2018		2019	
	D2D		D2D	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Dealerweb	[0-5]%	[0-5]%	[0-5]%	[0-5]%
BGC	[10-20]%	[10-20]%	[10-20]%	[10-20]%
GFI	[0-5]%	[0-5]%	[0-5]%	[0-5]%
IGDL	[20-30]%	[20-30]%	[20-30]%	[20-30]%
NEX	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Tradition	[5-10]%	[10-20]%	[5-10]%	[10-20]%
TP	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Others	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Total	**100%**	**100%**	**100%**	**100%**

Source: Form CO, paragraphs C.V. 157 and 158 as updated by RFI 13 reply, question 28.

Table 13

Market shares for electronic trading of OTC IRDs D2C at global level				
Trading venue	2016	2017	2018	2019
	Share (%) based on notional value traded	Share (%) based on notional value traded	Share (%) based on notional value traded	Share (%) based on notional value traded
Tradeweb	[20-30]%	[30-40]%	[40-50]%	[60-70]%
Bloomberg	[30-40]%	[20-30]%	[30-40]%	[20-30]%
TrueEx	[30-40]%	[30-40]%	[10-20]%	[5-10]%
Total	**100%**	**100%**	**100%**	**100%**

Source: Form CO, Interest-Rate Derivatives Chapter, Annex 5.

Table 14

Market shares for electronic trading of OTC IRDs D2C at EEA-level				
Trading venue	2018		2019	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Tradeweb	[40-50]%	[50-60]%	[40-50]%	[60-70]%
Bloomberg	[50-60]%	[40-50]%	[50-60]%	[30-40]%
TrueEx	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Total	**100%**	**100%**	**100%**	**100%**

Source: Case Team calculation based on Form CO, paragraphs C.V. 159 and 160 as updated by RFI 13 reply, question 28.

Table 15

Market shares for the D2C trading of OTC IRDs: IRS vs OIS at EEA-level								
Trading venue	IRS				OIS			
	2018		2019		2018		2019	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Tradeweb	[10-20]%	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[20-30]%	[20-30]%
Bloomberg	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 16

Market shares for the D2C trading of IRS at global level						
Trading venue	2017		2018		2019	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Tradeweb	[20-30]%	[10-20]%	[20-30]%	[20-30]%	[20-30]%	[20-30]%

Market shares for the D2C trading of IRS at global level						
Trading venue	2017		2018		2019	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Bloomberg	[5-10]%	[10-20]%	[10-20]%	[5-10]%	[10-20]%	[5-10]%
TrueEx	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 17

Market shares for the D2C trading of OIS at global level						
Trading venue	2017		2018		2019	
	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)	Share (%) based on number of trades (thousands)	Share (%) based on notional traded (EUR bn)
Tradeweb	[10-20]%	[5-10]%	[20-30]%	[10-20]%	[30-40]%	[30-40]%
Bloomberg	[10-20]%	[0-5]%	[5-10]%	[0-5]%	[5-10]%	[0-5]%
TrueEx	[5-10]%	[20-30]%	[0-5]%	[20-30]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 18

Market shares for the D2C trading of FRA at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[0-5]%	[0-5]%	[0-5]%	[0-5]%	Not provided	Not provided
Bloomberg	[0-5]%	[0-5]%	[0-5]%	[0-5]%	Not provided	Not provided
TrueEx	[30-40]%	[30-40]%	[40-50]%	[40-50]%	Not provided	Not provided
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	Not provided	Not provided
Total	**100%**	**100%**	**N/A**	**100%**	**N/A**	**N/A**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 19

Market shares for the D2C trading of OTC IRD denominated in EUR at EEA -level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[10-20]%	[10-20]%	[10-20]%	[20-30]%
Bloomberg	Not provided	Not provided	[20-30]%	[10-20]%	[10-20]%	[10-20]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 20

Market shares for the D2C trading of OTC IRD denominated in USD at EEA level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[10-20]%	[20-30]%	[10-20]%	[20-30]%
Bloomberg	Not provided	Not provided	[20-30]%	[5-10]%	[20-30]%	[10-20]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 21

Market shares for the D2C trading of OTC IRD denominated in GBP at EEA-level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Bloomberg	Not provided	Not provided	[5-10]%	[5-10]%	[5-10]%	[10-20]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 22

Market shares for the D2C trading of OTC IRD denominated in CAD at EEA-level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Bloomberg	Not provided	Not provided	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 23

Market shares for the D2C trading of OTC IRD denominated in AUD at EEA-level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[20-30]%	[20-30]%	[30-40]%	[30-40]%
Bloomberg	Not provided	Not provided	[10-20]%	[5-10]%	[0-5]%	[0-5]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 24

Market shares for the D2C trading of OTC IRD denominated in JPY at EEA-level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Bloomberg	Not provided	Not provided	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]0%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 25

Market shares for the D2C trading of OTC IRD denominated in CHF at EEA-level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	Not provided	Not provided	[20-30]%	[20-30]%	[30-40]%	[20-30]%
Bloomberg	Not provided	Not provided	[5-10]%	[5-10]%	[0-5]%	[5-10]%
Voice	Not provided	Not provided	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 26

Market shares for the D2C trading of OTC IRD denominated in EUR at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[10-20]%	[10-20]	[20-30]%	[20-30]%	[20-30]%	[20-30]%
Bloomberg	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%
TrueEx	[0-5]%	[5-10]%	[0-5]%	[5-10]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 27

Market shares for the D2C trading of OTC IRD denominated in USD at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[20-30]%	[10-20]%	[20-30]%	[20-30]%	[20-30]%	[30-40]%
Bloomberg	[5-10]%	[5-10]%	[10-20]%	[5-10]%	[10-20]%	[5-10]%
TrueEx	[0-5]%	[10-20]%	[0-5]%	[10-20]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 28

Market shares for the D2C trading of OTC IRD denominated in GBP at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[20-30]%	[10-20]%	[30-40]%	[20-30]%	[30-40]%	[30-40]%
Bloomberg	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
TrueEx	[0-5]%	[10-20]%	[0-5]%	[10-20]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 29

Market shares for the D2C trading of OTC IRD denominated in CAD at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[30-40]%	[20-30]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Bloomberg	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
TrueEx	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 30

Market shares for the D2C trading of OTC IRD denominated in AUD at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[20-30]%	[20-30]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Bloomberg	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
TrueEx	[0-5]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 31

Market shares for the D2C trading of OTC IRD denominated in JPY at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[30-40]%	[20-30]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Bloomberg	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
TrueEx	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

Table 32

Market shares for the D2C trading of OTC IRD denominated in CHF at global level						
Trading venue	**2017**		**2018**		**2019**	
	Share (%) based on number of trades (thousands)	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**	**Share (%) based on number of trades (thousands)**	**Share (%) based on notional traded (EUR bn)**
Tradeweb	[10-20]%	[5-10]%	[20-30]%	[20-30]%	[30-40]%	[30-40]%
Bloomberg	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[0-5]%
TrueEx	[10-20]%	[10-20]%	[5-10]%	[10-20]%	[0-5]%	[5-10]%
Voice	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%	[60-70]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01.

4.3.3.2. Trading of Over-the-Counter FX Products

(723) Table 33 to Table 35 below show the market shares of Refinitiv and its main competitors in the markets for global OTC FX trading in 2016-2019, based on average daily traded volumes.

Table 33

Electronic D2C Trading of OTC FX products worldwide						
	2016			**2019**		
Provider	**All products**	**Derivatives only**	**Spots only**	**All products**	**Derivatives only**	**Spots only**
Refinitiv	[10-20]%	[10-20]%	[5-10]%	[10-20]%	[10-20]%	[5-10]%
Bloomberg	[10-20]%	[10-20]%	[5-10]%	[10-20]%	[10-20]%	[20-30]%
State Street	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[10-20]%
360T	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[0-5]%	[5-10]%
FXSpotStream	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Integral	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
SDPs	[60-70]%	[50-60]%	[60-70]%	[50-60]%	[50-60]%	[50-60]%
Total	100%	100%	100%	100%	100%	100%

Source: Commission's calculation based on data provided in Form CO, C.IV.108ff.

Table 34

Electronic D2C Trading for OTC FX products excl. SDPs worldwide						
	2016			2019		
Provider	**All products**	**Derivatives only**	**Spots only**	**All products**	**Derivatives only**	**Spots only**
Refinitiv	[20-30]%	[30-40]%	[10-20]%	[20-30]%	[30-40]%	[10-20]%
Bloomberg	[20-30]%	[20-30]%	[20-30]%	[30-40]%	[30-40]%	[40-50]%
State Street	[20-30]%	[20-30]%	[30-40]%	[20-30]%	[10-20]%	[20-30]%
360T	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[5-10]%	[10-20]%
FXSpotStream	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%
Integral	[5-10]%	[5-10]%	[5-10]%	[0-5]%	[0-5]%	[5-10]%

Source: Commission's calculation based on data provided in Form CO, C.IV.108ff.

Table 35

Electronic D2D Trading of OTC FX products worldwide						
	2016			2019		
Provider	**All products**	**Derivatives only**	**Spots only**	**All products**	**Derivatives only**	**Spots only**
Refinitiv	[10-20]%	[20-30]%	[10-20]%	[10-20]%	[10-20]%	[0-5]%
EBS	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[0-5]%
CBOE	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Euronext	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
GTX	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
LMAX	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Other	[70-80]%	[60-70]%	[70-80]%	[80-90]%	[70-80]%	[80-90]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Commission's calculation based on data provided in Form CO, C.IV.108ff.

4.3.3.3. Trading of Equity index derivatives

(724) Table 36 to Table 41 below show the market shares of LESG and its main competitors in the markets for Equity index derivatives trading in 2017-2019, based on average daily traded volumes and value.

Table 36

Shares of trading in ETD equity index derivatives by volume (contracts traded)						
	2017		2018		2019	
Exchange	**Volume**	**Market Share**	**Volume**	**Market Share**	**Volume**	**Market Share**
CurveGlobal	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Borsa Italiana (IDEM)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total LSEG	[…]	**[0-5]%**	[…]	**[0-5]%**	[…]	**[0-5]%**
Eurex	[…]	[80-90]%	[…]	[80-90]%	[…]	[80-90]%
Euronext Derivatives Market	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
ICE Futures Europe	[…]	[5-10]%	[…]	[0-5]%	[…]	[0-5]%
NASDAQ OMX Nordic Exchanges	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Spanish Exchanges (BME)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%

Shares of trading in ETD equity index derivatives by volume (contracts traded)						
	2017		2018		2019	
Exchange	**Volume**	**Market Share**	**Volume**	**Market Share**	**Volume**	**Market Share**
Oslo Børs	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athens Stock Market	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
The Order Machine	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	[…]	**100,0%**	[…]	**100,0%**	[…]	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update.

Table 37

Shares of trading in ETD equity index derivatives by value (notional, EURm)						
	2017		2018		2019	
Exchange	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**
CurveGlobal	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Borsa Italiana (IDEM)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total LSEG	[…]	**[0-5]%**	[…]	**[0-5]%**	[…]	**[0-5]%**
Eurex	[…]	[80-90]%	[…]	[70-80]%	[…]	[80-90]%
Euronext	[…]	[0-5]%	[…]	[5-10]%	[…]	[5-10]%
ICE Futures Europe	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
NASDAQ OMX Nordic Exchanges	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Spanish Exchanges (BME)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Oslo Børs	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athens Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Budapest Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	[…]	**100,0%**	[…]	**100,0%**	[…]	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update.

Table 38

Shares of trading in ETD index options by volume (contracts traded)						
	2017		2018		2019	
Exchange	**Volume**	**Market Share**	**Volume**	**Market Share**	**Volume**	**Market Share**
CurveGlobal	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Borsa Italiana (IDEM)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total LSEG	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**
Eurex	[…]	[80-90]%	[…]	[90-100]%	[…]	[90-100]%
Euronext Derivatives Market	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ICE Futures Europe	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Nasdaq Exchanges Nordic	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%

Shares of trading in ETD index options by volume (contracts traded)						
	2017		2018		2019	
Exchange	**Volume**	**Market Share**	**Volume**	**Market Share**	**Volume**	**Market Share**
Markets						
Spanish Exchanges (BME)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Oslo Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athens Derivatives Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
The Order Machine	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100,0%**	**[…]**	**100,0%**	**[…]**	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update.

Table 39

Shares of trading in ETD equity index options by value (notional, EURm)						
	2017		2018		2019	
Exchange	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**
CurveGlobal	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Borsa Italiana (IDEM)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total LSEG	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**
Eurex	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
Euronext	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
NASDAQ OMX Nordic Exchanges	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Spanish Exchanges (BME)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Oslo Børs	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ICE Futures Europe	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athens Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100,0%**	**[…]**	**100,0%**	**[…]**	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update.

Table 40

Shares of trading in ETD index futures by volume (contracts traded)						
	2017		2018		2019	
Exchange	**Volume**	**Market Share**	**Volume**	**Market Share**	**Volume**	**Market Share**
CurveGlobal	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Borsa Italiana (IDEM)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total LSEG	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**
Eurex	[…]	[70-80]%	[…]	[70-80]%	[…]	[70-80]%
ICE Futures Europe	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
Nasdaq Exchanges Nordic Markets	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%

Shares of trading in ETD index futures by volume (contracts traded)						
	2017		2018		2019	
Exchange	**Volume**	**Market Share**	**Volume**	**Market Share**	**Volume**	**Market Share**
Euronext Derivatives Market	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
Spanish Exchanges (BME)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Oslo Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athens Derivatives Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100,0%**	**[…]**	**100,0%**	**[…]**	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update

Table 41

Shares of trading in ETD equity index futures by value (notional, EURm)						
	2017		2018		2019	
Exchange	**Trade Value (EURm)**	**Market Share**	**Trade Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**
CurveGlobal	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Borsa Italiana (IDEM)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total LSEG	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**
Eurex	[…]	[70-80]%	[…]	[70-80]%	[…]	[70-80]%
ICE Futures Europe	[…]	[10-20]%	[…]	[10-20]%	[…]	[5-10]%
Euronext	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
NASDAQ OMX Nordic Exchanges	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Spanish Exchanges (BME)	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Oslo Børs	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Athens Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Budapest Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100,0%**	**[…]**	**100,0%**	**[…]**	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update

4.3.4. Clearing of Financial derivatives

4.3.4.1. Clearing of Over-The-Counter Interest-Rate Derivatives

(725) Table 42 to Table 63 below shows the market shares of LCH SwapClear and its main competitors in global OTC IRD clearing markets, and segmented by (i) type of instrument (IRS, OIS and FRA) and (ii) currency (EUR, USD, GBP, CAD, AUD, JPY and CHF).[826]

826 The Notifying Party explained, that it considers global market shares to be the best available proxy for a hypothetical EEA-only market for OTC IRD clearing, see RFI 19 reply, question 1.

Table 42

Market shares for OTC IRD clearing at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[70-80]%	[…]	[80-90]%	[…]	[70-80]%	[…]	[70-80]%
CME	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: Form CO, paragraph C.V. 161.

Table 43

Market shares for OTC IRD clearing at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[80-90]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[5-10]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: Form CO, paragraph C.V. 161.

Table 44

Market shares for the clearing of IRS at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[70-80]%	[…]	[70-80]%	[…]	[60-70]%
CME	[…]	[…]	[…]	[10-20]%	[…]	[10-20]%	[…]	[5-10]%
Eurex	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[…]	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
ASX	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[…]	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
Total	**[…]**	**100,0%**	**[…]**	**100,0%**	**[…]**	**100,0%**	**[…]**	**100,0%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 45

Market shares for the clearing of IRS at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[80-90]%	[…]	[80-90]%	[…]	[80-90]%
CME	[…]	[…]	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
Eurex	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[…]	[…]	[5-10]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[…]	[…]	[0-5]	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 46

Market shares for the clearing of OIS at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[…]	[…]	-	[…]	-	[…]	-
Others	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 47

Market shares for the clearing of OIS at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[…]	[…]	-	[…]	-	[…]	-
Others	[…]	[…]	[…]		[…]		[…]	
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 48

Market shares for the clearing of FRA at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[80-90]%	[…]	[80-90]%
CME	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[…]	[…]	[0-5]%	[…]	[5-10]%	[…]	[10-20]%
JSCC	[…]	[…]	[…]	-	[…]	-	[…]	-
ASX	[…]	[…]	[…]	-	[…]	-	[…]	-
Others	[…]	[…]	[…]		[…]		[…]	
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 49

Market shares for the clearing of FRA at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[…]	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[…]	[…]	[0-5]%	[…]	[5-10]%	[…]	[5-10]%
JSCC	[…]	[…]	[…]	-	[…]	-	[…]	-
ASX	[…]	[…]	[…]	-	[…]	-	[…]	-
Others	[…]	[…]	[…]		[…]		[…]	
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 50

Market shares for the clearing of OTC IRD denominated in EUR at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[80-90]%	[…]	[80-90]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[5-10]%	[…]	[10-20]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 51

Market shares for the clearing of OTC IRD denominated in EUR at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[5-10]%	[…]	[10-20]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 52

Market shares for the clearing of OTC IRD denominated in USD at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[80-90]%	[…]	[80-90]%	[…]	[80-90]%
CME	[…]	[0-5]%	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 53

Market shares for the clearing of OTC IRD denominated in USD at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 54

Market shares for the clearing of OTC IRD denominated in GBP at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[5-10]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 55

Market shares for the clearing of OTC IRD denominated in GBP at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	[…]	100%	[…]	100%	[…]	100%	[…]	100%

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 56

Market shares for the clearing of OTC IRD denominated in CAD at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[5-10]%	[…]	[5-10]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 57

Market shares for the clearing of OTC IRD denominated in CAD at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 58

Market shares for the clearing of OTC IRD denominated in AUD at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[80-90]%	[…]	[80-90]%	[…]	[80-90]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 59

Market shares for the clearing of OTC IRD denominated in AUD at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[80-90]%	[…]	[90-100]%	[…]	[80-90]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**	**[…]**	**[0-5]%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 60

Market shares for the clearing of OTC IRD denominated in JPY at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[30-40]%	[…]	[30-40]%	[…]	[30-40]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[60-70]%	[…]	[60-70]%	[…]	[60-70]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 61

Market shares for the clearing of OTC IRD denominated in JPY at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[40-50]%	[…]	[40-50]%	[…]	[40-50]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[50-60]%	[…]	[50-60]%	[…]	[50-60]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 62

Market shares for the clearing of OTC IRD denominated in CHF at the global level (notional outstanding volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**hare (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

Table 63

Market shares for the clearing of OTC IRD denominated in CHF at the global level (notional cleared volumes)								
Clearing house	**2016**		**2017**		**2018**		**2019**	
	EUR bn	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**	**EUR bn**	**Share (%)**
LCH SwapClear (LSEG)	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%	[…]	[90-100]%
CME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Eurex	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
JSCC	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ASX	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Others	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**	**[…]**	**100%**

Source: RFI 28 reply, Annex M.9564_RFI 28_LSEG_01

4.3.4.2. Clearing of Over-the-Counter FX Products

(726) Table 64 below shows the market shares of LCH (LSEG) and its main competitors in the market for clearing of OTC FX products in the EEA in 2016-2019 based on notional volume cleared.

Table 64

Clearing of FX products in the EEA		
Provider	**2016**	**2019**
LCH	[90-100]%	[90-100]%
Eurex	[0-5]%	[0-5]%
Total	**100%**	**100%**

Source: Commission's calculation based on data provided in Form CO, C.IV.108ff.

4.3.4.3. Clearing of Commodity derivatives[827]

(727) Table 65 below shows the market share of LSEG in the market for the clearing of commodity derivatives in the EEA in 2017-2019 based on volume, value and open interest (*i.e.* number of outstanding contracts on the last trading day of the year). Table 66 below shows the same data at worldwide level.

Table 65

Clearing house	EEA market shares								
	2017			2018			2019		
	Volume	**Value**	**Open interest**	**Volume**	**Value**	**Open interest**	**Volume**	**Value**	**Open interest**
LCH SA	[0-5]%	0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
CC&G	[0-5]%	0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
LSEG CCPs combined	[0-5]%	0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Other CCPs	[90-100]%	90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 46 reply, question 3.

827 This section only provides market shares for a potential market encompassing the clearing of all commodity derivatives. The Notifying Party confirmed that even on the narrowest possible sub-segmentation, i.e. clearing of agricultural commodity derivatives sub-segmented by individual underlying, LSEG has previously confirmed that its market would be at most [10-20]% (in respect of wheat derivatives cleared by LCH SA's Commodity Clear) – see footnote 65 in RFI 46 reply dated 5 November 2020.

Table 66

Clearing house	Global market shares								
	2017			2018			2019		
	Volume	Value	Open interest	Volume	Value	Open interest	Volume	Value	Open interest
LCH SA	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
CC&G	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
LSEG CCPs combined	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Other CCPs	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%	[90-100]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 46 reply, question 3.

4.3.4.4. Clearing of CDS

Table 67

OTC CDS clearing by notional volumes cleared (EEA-wide)						
CCP	2017		2018		2019	
	Notional volume cleared (EUR bn)	Share (%)	Notional volume cleared (EUR bn)	Share (%)	Notional volume cleared (EUR bn)	Share (%)
LCH (SwapClear)	[...]	[20-30]%	[...]	[20-30]%	[...]	[20-30]%
ICE Clear Europe	[...]	[70-80]%	[...]	[70-80]%	[...]	[70-80]%
Total	**[...]**	100,0%	**[...]**	100,0%	**[...]**	100,0%

Source: RFI 13 reply, question 28, CDS 2019 update.

4.3.4.5. Clearing of Equity derivatives

Table 68

CCP-trading venue relationships in equity derivatives by trading value (notional, EURm)							
		2017		2018		2019	
Exchange	CCP	Value (EURm)	Market Share	Value (EURm)	Market Share	Value (EURm)	Market Share
CurveGlobal	LCH Ltd	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Borsa Italiana (IDEM)	CC&G	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Euronext	LCH SA	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Total LSEG		**[...]**	**[10-20]%**	**[...]**	**[10-20]%**	**[...]**	**[10-20]%**
Eurex	Eurex Clearing	[...]	[70-80]%	[...]	[70-80]%	[...]	[70-80]%
ICE Futures Europe	ICE	[...]	[10-20]%	[...]	[10-20]%	[...]	[5-10]%

CCP-trading venue relationships in equity derivatives by trading value (notional, EURm)							
		2017		2018		2019	
Exchange	**CCP**	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**
	Clear Europe						
NASDAQ OMX Nordic Exchanges	Nasdaq Clearing	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Spanish Exchanges (BME)	BME Clear	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Oslo Børs	Six X-Clear	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Warsaw Stock Exchange	KDPW	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Athens Stock Exchange	Athex Clear	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Budapest Stock Exchange	Keler	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Total		**[...]**	**100,0%**	**[...]**	**100,0%**	**[...]**	**100,0%**

Source: RFI 13 reply, question 28, Equity derivatives 2019 update.

Table 69[828]

Proportion of OTC-traded equity derivatives cleared by LCH SA			
	2016-2018 average	**2019**	**2016-2019 average**
Equity derivatives (contracts traded)	[0-5]%	[0-5]%	[0-5]%
Equity derivatives (notional, EURm)	[10-20]%	[5-10]%	[5-10]%

Source: RFI 13 reply, question 28, Equity derivatives 2019 update.

4.3.5. *Trading of Cash Equities*

(728) Table 70 to Table 72 below shows the market shares of the Parties and their main competitors in the relevant segments for ETP trading in the EEA in 2017-2019.

(729) The Parties are not able to provide the Commission with shares of ETP trading by country of listing, as this data is not readily available to them.

(730) Table 73 below shows the market shares of the Parties and their main competitors in the relevant segments for the trading of company-issued stocks in the EEA in 2017-2019.

828 In order to proxy LCH SA's share on a hypothetical market for clearing of OTC traded equity derivatives, the Notifying Party has combined the information on the size of the market for OTC trading of equity derivatives with LCH SA's total volume and turnover value. The information provided in this table therefore overstate LCH SA's market share in a potential narrower segment for the clearing of OTC-traded equity derivatives.

4.3.5.1. Trading of ETPs

Table 70

ETP Trading in EEA						
	2017		2018		2019	
Provider	**Share based on notional value traded**	**Share based on number of trades**	**Share based on notional value traded**	**Share based on number of trades**	**Share based on notional value traded**	**Share based on number of trades**
LSEG	[10-20]%	[30-40]%	[10-20]%	[30-40]%	[10-20]%	[30-40]%
Refinitiv	[10-20]%	[0-5]%	[10-20]%	[0-5]%	[10-20]%	[0-5]%
Combined	***[20-30]%***	***[30-40]%***	***[30-40]%***	***[40-50]%***	***[30-40]%***	***[30-40]%***
Bloomberg	[10-20]%	[0-5]%	[20-30]%	[0-5]%	[20-30]%	[0-5]%
Deutsche Börse	[10-20]%	[30-40]%	[5-10]%	[20-30]%	[5-10]%	[20-30]%
SIX	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Euronext	[10-20]%	[10-20]%	[0-5]%	[10-20]%	[0-5]%	[10-20]%
Others	[30-40]%	[10-20]%	[30-40]%	[10-20]%	[20-30]%	[10-20]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 13 reply, question 28, Cash Equities 2019 update.

Table 71

ETP Trading in EEA (order book protocol only)						
	2017		2018		2019	
Provider	**Share based on notional value traded**	**Share based on number of trades**	**Share based on notional value traded**	**Share based on number of trades**	**Share based on notional value traded**	**Share based on number of trades**
LSEG	[20-30]%	[30-40]%	[30-40]%	[40-50]%	[30-40]%	[40-50]%
Deutsche Börse	[10-20]%	[30-40]%	[20-30]%	[30-40]%	[20-30]%	[30-40]%
Euronext	[30-40]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%	[10-20]%
SIX	[10-20]%	[5-10]%	[10-20]%	[5-10]%	[10-20]%	[5-10]%
Others	[10-20]%	[5-10]%	[10-20]%	[5-10]%	[10-20]%	[5-10]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Commission's calculation based on RFI 13 reply, question 28, Cash Equities 2019 update.

Table 72

ETP Trading in EEA (RFQ protocol only)						
	2017		2018		2019	
Provider	**Share based on notional value traded**	**Share based on number of trades**	**Share based on notional value traded**	**Share based on number of trades**	**Share based on notional value traded**	**Share based on number of trades**
LSEG	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Refinitiv	[40-50]%	[40-50]%	[40-50]%	[40-50]%	[40-50]%	[40-50]%
Combined	***[40-50]%***	***[40-50]%***	***[40-50]%***	***[40-50]%***	***[40-50]%***	***[40-50]%***
Bloomberg	[50-60]%	[50-60]%	[50-60]%	[50-60]%	[50-60]%	[50-60]%
RFQHub	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%	[0-5]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Commission's calculation based on RFI 13 reply, question 28, Cash Equities 2019 update.

4.3.5.2. Trading of Company-issued stock

Table 73

Trading of Company-issued stock in the EEA, by value						
	2017		2018		2019	
Exchange	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**
LSE	[…]	[20-30]%	[…]	[10-20]%	[…]	[10-20]%
Borsa Italiana	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Turquoise	[…]	[5-10]%	[…]	[5-10]%	[…]	[0-5]%
Tradeweb	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Combined	[…]	***[30-40]%***	[…]	***[20-30]%***	[…]	***[20-30]%***
Systematic Internalisers	[…]	[0-5]%	[…]	[10-20]%	[…]	[10-20]%
Cboe	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%
Euronext	[…]	[10-20]%	[…]	[10-20]%	[…]	[10-20]%
Deutsche Borse	[…]	[5-10]%	[…]	[10-20]%	[…]	[10-20]%
Six Swiss Exchange	[…]	[5-10]%	[…]	[5-10]%	[…]	[0-5]%
Nasdaq OMX	[…]	[5-10]%	[…]	[5-10]%	[…]	[5-10]%
BME	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Aquis	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Oslo Børs	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
UBS MTF	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
ITG Posit	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Liquidnet	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Warsaw Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Equiduct	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Wiener Börse	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Irish Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Instinet Blockmatch	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Sigma X MTF	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Boerse Stuttgart	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%

Trading of Company-issued stock in the EEA, by value						
	2017		2018		2019	
Exchange	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**	**Value (EURm)**	**Market Share**
Athens Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Budapest Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Ceeseg - Prague	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Bucharest Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Zagreb Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Bulgarian Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Cyprus Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Malta Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Luxembourg Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Blink MTF	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Total	**[...]**	**100,0%**	**[...]**	**100,0%**	**[...]**	**100,0%**

Source: RFI 13 reply, question 28, Cash Equities 2019 update.

Table 74

Trading of Company-issued stock in the EEA, by volume						
	2017		2018		2019	
Exchange	**Volume (thousands of trades)**	**Market Share**	**Volume (thousands of trades)**	**Market Share**	**Volume (thousands of trades)**	**Market Share**
LSE	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Borsa Italiana	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Turquoise	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Tradeweb (off-order book)	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Combined	**[...]**	***[30-40]%***	**[...]**	***[40-50]%***	**[...]**	***[30-40]%***
Bloomberg (off-order book)	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Deutsche Boerse AG	[...]	[20-30]%	[...]	[20-30]%	[...]	[20-30]%
Euronext	[...]	[10-20]%	[...]	[10-20]%	[...]	[10-20]%
Other (off-order book)	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
SIX Swiss Exchange	[...]	[5-10]%	[...]	[5-10]%	[...]	[5-10]%
Nasdaq Nordic and Baltics	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Oslo Bors	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
BME Spanish Exchanges	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Systematic Internalisers	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
RFQHub (off-order book)	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Warsaw Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Bucharest Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
CEESG - Vienna	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Budapest Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Athens Stock Exchange	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%
Euronext Dublin	[...]	[0-5]%	[...]	[0-5]%	[...]	[0-5]%

Trading of Company-issued stock in the EEA, by volume						
	2017		2018		2019	
Exchange	**Volume (thousands of trades)**	**Market Share**	**Volume (thousands of trades)**	**Market Share**	**Volume (thousands of trades)**	**Market Share**
Luxembourg Stock Exchange	[…]	[0-5]%	[…]	[0-5]%	[…]	[0-5]%
Total	**[...]**	**100,0%**	**[...]**	**100,0%**	**[...]**	**100,0%**

Source: RFI 13 reply, question 28, Cash Equities 2019 update.

4.3.6. *Clearing of Cash Equities*

Table 75

Equity Clearing in EEA						
	2017		2018		2019	
Provider	**Share based on notional value cleared**	**Share based on number of trades cleared**	**Share based on notional value cleared**	**Share based on number of trades cleared**	**Share based on notional value cleared**	**Share based on number of trades cleared**
LSEG	[40-50]%	[50-60]%	[40-50]%	[50-60]%	[40-50]%	[50-60]%
Eurex Clearing	[10-20]%	[5-10]%	[10-20]%	[5-10]%	[10-20]%	[5-10]%
European CCP	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%	[30-40]%
Other	[5-10]%	[0-5]%	[0-5]%	[0-5]%	[5-10]%	[0-5]%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: RFI 13 reply, question 28, Cash Equities 2019 update.

4.3.7. *Consolidated Real-Time Datafeeds*

(731) Figure 5 below shows the market shares of Refinitiv and its main competitors in the worldwide market for CRTDs in 2017-2019. These shares are based on the revenues of Refinitiv and its competitors.

Figure 5

	Global					
	Revenue Estimates (EUR m)	**Share estimate (%)**	**Revenue Estimates (EUR m)**	**Share estimate (%)**	**Revenue Estimates (EUR m)**	**Share estimate (%)**
CRTDs	**2017**		**2018**		**2019**	
Refinitiv	[…]	[40-50]	[…]	[40-50]	[…]	[40-50]
Bloomberg	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]
ICE	[…]	[5-20]	[…]	[5-10]	[…]	[5-20]
IHSMarkit	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
ACTIV Financial	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
SIX Financial	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Others	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]

	Global					
	Revenue Estimates (EUR m)	Share estimate (%)	Revenue Estimates (EUR m)	Share estimate (%)	Revenue Estimates (EUR m)	Share estimate (%)
CRTDs	2017		2018		2019	
Total	[…]	[90-100]	[…]	[90-100]	[…]	[90-100]

Source: RFI 29 reply, Table 14.

4.3.8. Desktop Services

(732) Figure 6 below shows the market shares of Refinitiv and its main competitors in the worldwide market for desktop services in 2017-9. These shares are based on the revenues of Refinitiv and its competitors.

Figure 6

	Global					
	Revenue Estimates (EUR m)	Share estimate (%)	(EUR Revenue Estimates EUR m)	Share estimate (%)	Revenue Estimates (EUR m)	Share estimate (%)
Desktop services	2017		2018		2019	
Bloomberg	[…]	[30-50]	[…]	[30-50]	[…]	[30-50]
Refinitiv	[…]	[10-20]	[…]	[10-20]	[…]	[10-20]
FactSet	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]
S&P Global	[…]	[0-10]	[…]	[5-10]	[…]	[0-10]
Morningstar	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Others	[…]	[20-40]	[…]	[30-40]	[…]	[30-40]
Total	[…]	[90-100]	[…]	[90-100]	[…]	[90-100]

Source: RFI 29 reply, Table 12.

4.3.9. Venue data

(733) The Commission considers that each trading venue (especially regulated markets, like LSE) offers unique trading data sets that cannot be substituted by the trading data from other venues.

(734) On this basis, the Commission understands for the purposes of its competitive assessment that LSEG has a monopoly in the market for venue data generated in LSE.

4.3.10. Index Licensing

(735) Figure 7 below shows the Parties' shares in the worldwide UK equity indices market in 2016-9.

Figure 7

Global								
UK equity indices	**AuM (EUR m)**	**Market share**	**AuM (EUR m)**	**Market share**	**AuM (EUR m)**	**Market share**	**AuM (EUR m)**	**Market share**
	2016		**2017**		**2018**		**2019**	
FTSE	[…]	[90-100]	[…]	[90-100]	[…]	[80-90]	[…]	[80-90]
Refinitiv	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
The Investment Association	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Numis	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
MSCI	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
S&P	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Morningstar	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Blend	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Other	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Total	[…]	[90-100]	[…]	[90-100]	[…]	[90-100]	[…]	[90-100]

Source: RFI 29 reply, Table 11.

(736) below shows the Parties' shares in the worldwide equity indices market in 2016-9.

Figure 8

Global								
Equity indices	**AuM (EUR m)**	**Market share**	**AuM (EUR m)**	**Market share**	**AuM (EUR m)**	**Market share**	**AuM (EUR m)**	**Market share**
	2016		**2017**		**2018**		**2019**	
FTSE	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]
Refinitiv	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
MSCI	[…]	[30-40]	[…]	[30-40]	[…]	[30-40]	[…]	[30-40]

Global								
Equity indices	AuM (EUR m)	Market share	AuM (EUR m)	Market share	AuM (EUR m)	Market share	AuM (EUR m)	Market share
	2016		2017		2018		2019	
S&P	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]	[…]	[20-30]
CRSP	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
JPX	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
NASDAQ	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
STOXX	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Blend	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]	[…]	[0-5]
Other	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]	[…]	[5-10]
Total	[…]	[90-100]	[…]	[90-100]	[…]	[90-100]	[…]	[90-100]

Source: RFI 29 reply, Table 3.

(737) Figure 9 below shows Refinitiv's and its competitors' shares in the worldwide FX benchmark market in 2017-9.

Figure 9

FX Benchmarks	Global		
	Share estimate (%)	Share estimate (%)	Share estimate (%)
	2017	2018	2019
Refinitiv (WM/R)	[80-90]	[70-80]	[70-80]
Bloomberg (BFIX)	[10-30]	[10-30]	[20-30]
New Change FX benchmarks	[0-5]	[0-5]	[0-5]
Others	[0-5]	[0-5]	[0-5]
Total	**100%**	**100%**	**100%**

Source: RFI 29 reply, Table 16.

4.4. Assessment of Horizontal Effects

4.4.1. Provision of Electronic Trading Services for European Government Bonds

(738) With regard to the provision of trading services for EGBs, the Transaction gives rise to horizontally affected markets only with regard to the market for the provision of electronic trading services for EGBs, and its potential sub-segments, namely the provision of such services for D2D trades and for D2C trades.

4.4.1.1. The Notifying Party's view

(739) According to the Notifying Party, the Transaction does not raise competitive concerns with regard to the trading of EGBs for a number of reasons, and in particular because the Parties would not be closely competing as Tradeweb focuses on D2C trades, while LSEG is a bigger player in the D2D side. According to the Notifying Party, LSEG's closest competitor is BrokerTec, a strong D2D venue backed by leading dealer-banks and Tradeweb's closest competitor is Bloomberg, which offers D2C trading services as part of its Bloomberg Terminal, and voice trading.[829]

(740) In the electronic D2D segment in particular, the Notifying Party claims that the Transaction does not give rise to competitive concerns as the increment brought by Tradeweb (through Dealerweb) is [a very small percentage].[830] In the electronic D2C segment, the Notifying Party considers that the Transaction does not give rise to competitive concerns either because LSEG would be a lesser competitive constraint for Tradeweb than Bloomberg because its MTS BondVision venue is very focused on the Italian market. The Notifying Party notes that Italian government bonds accounted for [a high percentage] of all EGBs traded on MTS BondVision in 2018,[831] and for [10-20]% of all EGBs traded on Tradeweb in 2018.[832]

(741) In addition, the Notifying Party claims that the combined entity will remain materially constrained post-Transaction by voice trading and by the continued threat of new entry and expansion, notably entry that could be customer-sponsored (e.g. sponsored by large dealer-banks or financial investors).[833]

4.4.1.2. The Commission's assessment

(742) For the reasons set out below in this Section 4.4.1.2 and based on the results of the market investigation and the evidence available to it, the Commission considers that the Transaction gives rise to competition concerns in the market (and its possible sub-segments) for the provision of electronic trading services of EGBs.

(743) In the supply of electronic EGB trading services, LSEG is primarily active through two entities of the MTS Group: (i) MTS BondVision, which comprises three D2C electronic trading venues for cash bond trading; and (ii) MTS Cash, which includes a number of electronic venues across the EEA, some focusing on domestic markets, that offer D2D trading for Euro-denominated government bonds and a limited number of other EGBs. In addition, LSEG operates MOT, ExtraMOT, and EuroTLX, which are smaller cash bond trading venues focusing on retail trades.

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829 Form CO, paragraph B.181.

830 The Commission notes that the Notifying party's claim refers to 2018 market data. The 2019 market share data provided by the Notifying Party post-notification indicate that Refinitiv's market share in D2D amounted to [0-5]% (see RFI 13 reply, question 28).

831 Form CO, paragraph B.182.

832 Form CO, paragraph B.299.

833 Form CO, paragraph B.181.

(744) Refinitiv is active in the provision of electronic EGB trading services through two entities: (i) Tradeweb Institutional, which is an electronic trading venue that primarily offers D2C electronic trading service for EGBs; and (ii) Dealerweb, which is an electronic trading venue, offering hybrid and voice features, dedicated to D2D trades of UK government bonds to customers located in the EEA.[834]

(745) According to the Horizontal Merger Guidelines,[835] in the assessment of the horizontal effects of a merger, market shares and concentration levels constitute useful first indications of the structure of the markets at stake and of the competitive importance of the relevant market players.

(746) *First*, the Commission notes that, as explained in further details below, the Parties' market shares for electronic EGB trading services are high, regardless of the precise product or geographic market definition.

(747) In electronic EGB trading services overall, the Parties' 2019 combined volume market shares amounted to c. [60-70]%, with a very high increment of c. [20-30]% from LSEG (through the MTS Group).[836] In this market, the Transaction would constitute essentially a 3-to-2 merger, where Bloomberg (with a [20-30]% share) would remain the only competitor with a market share exceeding 5% post-Transaction. In recent years, Refinitiv's market shares have [increase in market share] (by [10-20] percentage points from 2016 to 2019), while LSEG's shares have materially decreased (over [10-20] percentage points in the same time period). In line with the Horizontal Guidelines, the Parties' market shares are indicative of a dominant position of the combined entity post-Transaction.

(748) In the narrower segment of electronic D2C EGB trading services, the Parties' 2019 combined volume market shares amounted to c. [60-70]%, with a high increment of c. [10-20]% from LSEG (through the MTS Group).[837] In this segment, the Transaction would equally constitute essentially a 3-to-2 merger where Bloomberg (with a [30-40]% share) would remain the only competitor with a market share exceeding 5% post-Transaction based on the evidence available on file.[838] In recent years, Refinitiv's market shares have [increase in market share] (over [10-20] percentage points from 2016 to 2019), while LSEG's shares have decreased (over [0-5] percentage points in the same time period). In line with the Horizontal Guidelines, the Parties' market shares are indicative of a dominant position of the combined entity post-Transaction.

(749) In the supply of electronic D2D EGB trading services, the Parties' 2019 combined volume market shares is even higher (it amounted to c. [70-80]%), with however a small increment of [0-5]% from Refinitiv (through Dealerweb).[839] Post-Transaction, only one competitor with a market shares exceeding 5% will remain on the market, namely BrokerTec from the CME group (with a [10-20]% share). In recent years, Refinitiv's market shares have slowly grown (over [0-5] percentage points from 2016

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834 Form CO, paragraph B.135.

835 Horizontal Merger Guidelines, paragraph 14.

836 See Table 3 above.

837 See Table 3 above.

838 The Commission notes that, according to the market shares provided by the Notifying Party (see Section 4.3.1 above), the category "Exchanges" had a [5-10]% market share in the electronic D2C segment. However, as explained in footnote 281 the category "Exchanges" does not correspond to the market position of a single market player. The Notifying Party expects that this category may include venues such as Euronext's bonds platform, SIX, HDAT, and the smaller regional exchanges.

839 See Table 3 above.

to 2019), while LSEG's shares have slowly decreased (over [0-5] percentage points in the same time period). In line with the Horizontal Guidelines, the Parties' market shares are indicative of a strengthening, post-Transaction, of the combined entity's dominant position.

(750) *Second*, the results of the market investigation confirm that, as indicated by the market shares, the Parties do have strong market power in the potential relevant markets.

(751) Firstly, the Parties' strong market power for the provision of electronic EGB trading services is evidenced by the fact that they are considered to be the leading electronic EGB trading venues.

(752) In the D2C segment, the majority of customers consider that Tradeweb is the leading provider of trading services for EGBs, followed by Bloomberg and MTS.[840] The Commission notes that buy-side customers who responded to the market investigation tend to consider Tradeweb as leading players in bigger proportion than sell-side customers.[841] Similarly, when asked to list the leading venues for D2C EGB trading, competitors named Tradeweb, Bloomberg, as well as MTS BondVision.[842]

(753) In the D2D segment, the vast majority of customers consider that MTS is the leading provider of EGB trading services, distantly followed by BrokerTec.[843] Feedback from the market investigation further shows that BrokerTec's competitive constraint is limited by its relative liquidity. For example, customers explain that BrokerTec is "*not as liquid as MTS*"[844] or that it has "*little liquidity*".[845] In addition, all responding competitors view MTS as the leading provider of D2D trading services. The majority of competitors also rank Tradeweb or Dealerweb amongst the leading four providers of D2D electronic EGB trading services.[846]

(754) Secondly, the Parties' strong market power for the provision of electronic EGB trading services is further evidenced by the fact that numerous competitors and customers consider that MTS and Tradeweb benefit from competitive advantages over other venues, notably in terms of liquidity,[847] which is a key parameter of competition.[848] As summarised by a competitor, this liquidity advantage notably

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840 Question 36, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 40, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

841 In this regard, the Commission notes a sell-side customers explain that, for D2D trades, it is usually the buy-side customers that decide on which venue to execute trades, rather than the dealer. For this reason, the perception of buy-side customers may provide a better indication of the market power of providers of EGB trading services. Questionnaire 6 – EGB sell-side customers (e.g. question 15.1), Doc ID 6477

842 Question 40, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

843 Question 39, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

844 Question 36.1, Questionnaire 6 to EGB sell-side customers, response of Commerzbank AG, Doc ID 6477.

845 Question 36.1, Questionnaire 6 to EGB sell-side customers, response of UniCredit SpA, Doc ID 6477.

846 Question 39, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

847 Questions 42 and 43, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Questions 28 and 29, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Questions 38-39, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

848 Question 45, Questionnaire 5 to EGB buy-side customers, Doc ID 6476; Question 37, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 38, Questionnaire 7 to EGB trading venue competitors.

comes from the fact that "*Tradeweb and MTS are significantly supported by the largest and most important Tier 1 dealers and many important clients*".[849]

(755) In the D2C segment, respondents to the market investigation highlight that Refinitiv's venue (Tradeweb) has a wide historic buy-side customer base, which attracts liquidity and dealers. By way of example, a competitor highlights the fact that "*Tradeweb is one of the historical trading venue for EGB, with strong liquidity. The company's membership base is made of the largest players in the industry, that also used to be partly owners of the company*",[850] and another competitor considers that Tradeweb benefits from "*[d]istribution and liquidity, historical dealer ownership & governance*".[851] In addition, the fact that Refinitiv is active also in D2D (via the Dealerweb venue) is quoted as a competitive advantage, notably because this allows Refinitiv to "*benefit[t] from established relations with dealers both on the D2D (Dealerweb) and on the D2C side (Tradeweb)*"[852] and to enhance its operational efficiency.[853] In the same vein, competitors report that LSEG's venue (MTS Bondvision) has strong liquidity from Italian buy-side customers, an important advantage considering that Italian bonds are the most traded EGBs.[854]

(756) In the D2D segment, respondents to the market investigation stress that LSEG's venue (MTS Cash) has the crucial advantage to be the unique platform authorised by some European treasuries to report primary dealers' activity over their bonds, including in Italy and Spain.[855] By way of example, a competitor highlights that MTS Cash owns "*unique platforms authorized by some european treasuries to report primary dealers' activ[ity] over their bonds*",[856] and another adds that, in other words, MTS benefits from "[l]*iquidity due to the DMO credits*".[857] Competitors explain that MTS' advantage regarding the Italian market is very important from a business perspective as Italy is a key country in EGB trading because Italian bonds are the most traded EGBs. More generally, a competitor explains that "*as an historical trading venue for EGB, MTS benefits from an inherited advantage in terms of liquidity*" and adds that "*MTS benefits from LSE architecture and membership".*[858] In addition, the fact that Refinitiv is active also in D2C (via the Tradeweb venue) is quoted as a competitive advantage, notably because this allows Refinitiv to

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849 Questions 10.3 and 43.1, Questionnaire 7 to EGB trading venue competitors, response of Bloomberg LP, Doc ID 6478.

850 Question 43.1, Questionnaire 7 to EGB trading venue competitors, response of Euronext Group, Doc ID 6478.

851 Question 43.1, Questionnaire 7 to EGB trading venue competitors, response of MarketAxess Holdings, Doc ID 6478.

852 Questions 39.1, Questionnaire 7 to EGB trading venue competitors, response of Euronext Group, Doc ID 6478.

853 Questions 39.1 and 43.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

854 Question 39, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

855 Question 40, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Question 28, Questionnaire 5 to EGB buy-side customers, Doc ID 6476; Question 38, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

856 Question 42.1, Questionnaire 7 to EGB trading venue competitors, response of BME Clearing S.A.U, Doc ID 6478.

857 Question 42.1, Questionnaire 7 to EGB trading venue competitors, response of MarketAxess Holdings, Doc ID 6478.

858 Question 42.1, Questionnaire 7 to EGB trading venue competitors, response of Euronext Group, Doc ID 6478.

"*benefit[t] from established relations with dealers both on the D2D (Dealerweb) and on the D2C side (Tradeweb)*"[859] and to enhance its operational efficiency.[860]

(757) *Third*, the results of the market investigation also indicate that, contrary to the Notifying Party's claim, the Parties are closely competing for electronic EGB trading services. As mentioned above, the Parties are two leading electronic venues for EGB trading services, which both have as major market strength the liquidity available on their platform. As explained by a competitor, "*Tradeweb and MTS are significantly supported by the largest and most important Tier 1 dealers and many important clients*".[861]

(758) The results of the market investigation clearly indicate that the Parties are close competitors in the D2C market as Tradeweb and MTS BondVision are often perceived as the best alternatives to each other.[862] A customer explains that "*today MTS cash/Bondvision compete with Tradeweb on every potential transaction on EGBs*".[863] In the D2C segment, the results of the market investigation indicate that the Parties also closely compete with Bloomberg. It results from the market investigation that the closeness of competition between the Parties is more limited in the D2D segment, with a minority of market respondents indicating that Dealerweb or Tradeweb ranked amongst the closest substitute or alternative to MTS.[864] This is likely due to the fact that LSEG is a dominant player in the D2D space, although its shares have slightly decreased in the past years, to the benefit of smaller venues such as Dealerweb notably.

(759) *Fourth*, the results of the market investigation indicate that barriers to enter and expand in the market of electronic EGB trading services are high. First of all, entry is hindered by the difficulty of building sufficient liquidity to compete effectively for electronic EGB trading services.[865] Liquidity can also be a barrier to expansion for players already active in the provision of electronic EGB services. As mentioned above in recital (755), liquidity is a key parameter to compete in the market, which tends to favour historic players and disadvantage new entrants.

(760) In addition, competitors explain that entry in some countries such as Spain and Italy is challenging for regulatory reasons.[866] As mentioned in recital (757), for instance, MTS has "*unique platforms authorized by some european treasuries to report primary dealers' active[t]y over their bond*".[867] The results of the market investigation therefore show that barriers to enter or expand are more significant in the D2D space because, as summarized by a competitor, "*D2D EGB trading via*

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859 Question 39.1, Questionnaire 7 to EGB trading venue competitors, response of Euronext Group, Doc ID 6478.

860 Questions 39.1 and 43.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

861 Questions 10.3 and 43.1, Questionnaire 7 to EGB trading venue competitors, response of Bloomberg LP, Doc ID 6478.

862 Question 40, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 30, Questionnaire 6 to EGB buy-side customers, Doc ID 6477; Questions 41 and 43, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

863 Question 42.2, Questionnaire 6 to EGB sell-side customers, response of Banco BPMA SPA, Doc ID 6477.

864 Question 40.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Question 40.1, Questionnaire 6 to EGB sell-side customers, Doc ID 6477; Question 30.1, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.

865 Question 29, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

866 Question 38, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.

867 Question 42.1, Questionnaire 7 to EGB trading venue competitors, BME Clearing S.A.U, Doc ID 6478.

e[l]ectronic trading platforms normally is linked to primary dealership schemes set up by national treasuries, if you dont have access to those schemes or your platform is not authorized for the fulfillment of their requirements it is very difficul[t] to gain market share".[868]

(761) Moreover, entry in the electronic EGB trading services market requires (i) the setup of a dedicated technological infrastructure and (ii) to connect the entrant's trading infrastructure to clients' established infrastructure, which can be costly and time-consuming. Feedback from market respondents indicates that integrating customers' trading systems with a trading venue can take longer than one year and can involve significant IT costs for the trading venues or the customers.[869] The Commission notes that customers' estimates regarding the time and cost incurred to join a new venue may depend from one customer to another. By way of example, a customer indicates that joining a new venue "*is a costly exercise (£500k+) and could take upwards of a year*"[870] while another customer estimates that joining a new venue costs c. EUR 500 000 and takes around 3 months in order to ensure that its "*internal business processes will adhere to the new venue*".[871] In the same vein, customers explain that they may be reluctant to change electronic trading platform. For example, a customer explains "*[o]nce tied to a platform (because it is connected to their OMS for example) it is difficult for a buy side firm to switch to another one*."[872]

(762) The difficulty to enter or expand in the provision of electronic EGB trading services is further evidenced by the fact that market respondents are not aware of successful entry in the past 3 years, apart from Dealerweb that benefitted from its link with Tradeweb, and Liquidnet.[873]

(763) *Finally*, with regard to the impact of the Transaction, a number of market participants consider that there will not be sufficient credible competitors for the supply of electronic EGB trading services post-Transaction in general.[874] By way of examples, a customer indicates that the remaining competitors' "*market share would be too small*",[875] and that "*[t]he merged entity would be a dominant player in a market in which there is already not enough competition*",[876] and another customer considers that "*the creation of strong players (in terms of market share) in such a highly concentrated market will be able to reduce competition and thus it could have potential impacts on reaching best execution for our customers (e.g by imposing additional and/or higher implicit costs)*".[877] According to a customer, while Bloomberg will remain on the market "*to have access to Bloomberg trading platform*

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868 Question 28.1, Questionnaire 7 to EGB trading venue competitors, BME Clearing S.A.U, Doc ID 6478.
869 Question 31.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.
870 Question 31.2, Questionnaire 5 to EGB buy-side customers, response of Lloyds Banking Group plc, Doc ID 6476.
871 Question 41.2, Questionnaire 6 to EGB sell-side customers, response of Commerzbank AG, Doc ID 6477.
872 Question 27, Questionnaire 5 to EGB buy-side customers, response of Société Générale, Doc ID 6476.
873 Questions 29, 29.1, 32, and 32.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478.
874 Question 46, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Question 32, Questionnaire 5 to EGB buy-side customers, Doc ID 6476; Question 42, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.
875 Question 32.2, Questionnaire 5 to EGB buy-side customers, response of Société Générale, Doc ID 6476.
876 Question 42.2, Questionnaire 6 to EGB sell-side customers, response of Société Générale, Doc ID 6477.
877 Question 32.2, Questionnaire 5 to EGB buy-side customers, response of Eurizon Capital SGR SpA, Doc ID 6476.

it's necessary to subscribe an expensive Bloomberg terminal, which for an Eikon's user wouldn't make much sense".[878]

(764) Market participants expressed concerns as well with respect to the combined entity's dominant position and restricted number of sufficient credible competitors for the supply of electronic EGB trading services post-Transaction in the D2C and D2D segments in particular. By way of example, a competitor states that: "*on D2C trading the merge[r] will create significa[n]t concentration*",[879] and another competitor considers more generally that the combined entity "*would be the dominant player across D2D and D2C*".[880] The same last competitor explains that *"There is a competitive risk with the combined MTS Cash, MTS Bondvision, TW and LCH value chain all being under one umbrella. Data monopoly, bundling clearing as part of the transaction flow and owning dealer connectivity for D2D and D2C."*[881] Similarly, a clearing competitor explains its concerns that *"The resultant entity will control platforms operating in both areas, D2C & D2D, so can use this situation to try to combine both trading spaces."*[882]

(765) A number of market participants are therefore concerned by the impact of the Transaction, notably in terms of prices, and innovation.[883] Half of the responding competitors and over 30% of the responding sell-side customers consider that the Transaction will have a negative impact on prices.[884] By way of example, a competitor states that the Transaction "*will increase the concentration in EGB market data – which is scarce and difficult to access. From our perspective, trading fees competition is also likely to be less intense with one unified platform than with two platforms*".[885] In addition, a customer indicates the following: "*[we] conside[r] that the consolidation of two existing service providers would lead to a lack of competition and therefore potentially an increase in price*",[886] another customer explains that *"[i]f they were to merge the fees to trade EGBs would likely increase and the impact would be negative*";[887] *"[a] merger between LSEG and Refinitiv could reduce the level of competitiveness in the market on EGB*".[888] A number of market participants also consider that the Transaction is likely to have a negative

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878 Question 32.2, Questionnaire 5 to EGB buy-side customers, response of Fundo de Garantia de Depósitos, Doc ID 6476.

879 Question 47.1.1, Questionnaire 7 to EGB trading venue competitors, response of BME Clearing S.A.U, Doc ID 6478.

880 Question 46.2, Questionnaire 7 to EGB trading venue competitors, response of MarketAxess Holdings, Doc ID 6478.

881 Question 51, Questionnaire 7 to EGB trading venue competitors, response of MarketAxess Holdings, Doc ID 6478.

882 Question 48.1, Questionnaire 7 to EGB trading venue competitors, response of BME Clearing, Doc ID 6478.

883 Questions 47.1-3, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Questions 33.1-3, Questionnaire 5 to EGB buy-side customers, Doc ID 6476; Questions 43.1-3, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

884 Question 47.1, Questionnaire 7 to EGB trading venue competitors, Doc ID 6478; Question 43.1, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

885 Question 47.1.2, Questionnaire 7 to EGB trading venue competitors, response of Euronext Group, Doc ID 6478.

886 Question 43.1.2, Questionnaire 6 to EGB sell-side customers, response of Nomura International plc, Doc ID 6477.

887 Question 43.1.2, Questionnaire 6 to EGB sell-side customers, response of BNP Paribas Group, Doc ID 6477.

888 Question 42.2, Questionnaire 6 to EGB sell-side customers, response of Banco BPM SpA, Doc ID 6477.

impact on innovation. A competitor states that post-Transaction, the combined entity will have the ability and incentives to "*harm the pace of innovation*" via pricing strategies and a strategy of combining MTS and Tradeweb.[889]

(766) In light of the above, and the evidence available to it, the Commission considers that the Transaction would significantly impede effective competition in the market for the provision of electronic trading services for EGBs. As explained in recital (765) above, this conclusion holds true for each of the possible D2C and D2D sub-segments within the provision of electronic trading services for EGBs. More specifically, the Transaction would lead to the creation of a dominant position in the overall market for the electronic provision of EGB trading services, as well as in the narrower segment of electronic D2C EGB trading, while it would lead to the strengthening of LSEG's dominant position in the segment of electronic D2D EGB trading services.

4.4.1.3. Conclusion

(767) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would significantly impede effective competition for the provision of electronic EGB trading services, regardless of whether the market is EEA-wide or worldwide in scope, and regardless of whether the D2C and D2D trading channels form two separate product markets. More specifically, the Transaction would lead to the creation of a dominant position in the overall market for the electronic provision of EGB trading services, as well as in the narrower segment of electronic D2C EGB trading, while it would lead to the strengthening of LSEG's dominant position in the segment of electronic D2D EGB trading services.

4.4.2. Provision of D2C Electronic Trading Services for Non-Government Bonds

(768) With regard to the provision of trading services for other types of bonds than EGBs, the Commission notes at the outset that the Transaction does not give rise to any horizontally affected markets based on 2019 market share figures.

(769) Based on 2018 and 2017 figures, however, the Transaction does give rise to a horizontally affected market in one potential market, namely the provision of D2C electronic trading services for non-government bonds in the EEA. Indeed, as shown in ***Table 7*** above, in the electronic provision of D2C trading services for non-government bonds in the EEA, LSEG held a market share of [0-5]% in 2018 (and of [5-10]% in 2017),[890] while Refinitiv held a share of [10-20]% in 2018 (and [20-30]% in 2017). The combined share of the Parties therefore amounted to just above [20-30]% in 2018, and more specifically to [20-30]% (and to [20-30]% in 2017).[891]

(770) For the sake of completeness, the Transaction does not give rise to any affected relevant markets for the trading of non-EGB bonds, and the possible sub-segments by issuer-type, trading channel, or execution method, if the market(s) are considered worldwide (even based on the 2018 and 2017 market share data). At EEA level, the Transaction does not give rise to any affected relevant markets for the trading of non-

889 Questions 47.1.2 and 48.1, Questionnaire 7 to EGB trading venue competitors, response of Bloomberg LP, Doc ID 6478.

890 In 2019, in the electronic provision of D2C trading services for non-government bonds in the EEA, LSEG held a market share of [0-5]%, while Refinitiv held a share of [10-20]%.

891 Based on the notional value traded, and more specifically on the average daily trading volumes ("ADTV).

EGB bonds, or possible sub-segments by issuer-type, trading channel, or execution method, apart from the provision of D2C electronic trading services for non-government bonds (even based on the 2018 and 2017 market share data).

4.4.2.1. The Notifying Party's view

(771) The Notifying Party submits that the Transaction does not raise horizontal competitive concerns with regard to the trading of non-government bonds despite the fact that the Parties' combined market share exceeds 20% for the provision of D2C electronic trading services for non-government bonds in the EEA.

(772) *First*, the Notifying Party contends that the market for the provision of trading services for cash bonds is competitive, with a number of competitors and sophisticated customers active both on the buy-side and sell-side.[892] According to the Notifying Party, the combined entity will be constrained post-Transaction by several competitors such as Bloomberg, BGC/GFI's venues, TP ICAP, and MarketAxess,[893] and by customers that exert significant countervailing buyer power, including through the threat of sponsored entry.[894] The Notifying Party also submits that the Parties are not close competitors for the provision of trading services of non-government bonds in the EEA because Tradeweb's venues mainly focus on D2C trades, while LSEG is primarily active in D2D space.[895]

(773) *Second*, in the D2D segment of the trading of non-government bonds in the EEA,[896] the Notifying Party considers that the Transaction gives rise to no affected markets as the combined market share in D2D non-government bond trading is below 20%, (namely approximately [10-20]%), and the increment, brought by LSEG, is very small (about [0-5]%).[897]

(774) *Third*, the Notifying Party considers that no competition concerns and no affected markets arise in the segment of D2C trading of non-government bonds given that, in the EEA, the market share is approximately [10-20]% and the increment brought by LSEG is very small (namely, [0-5]%).[898] The Notifying Party contends that the combined entity would face material constraints, on the one hand from Bloomberg, which would be the market leader with a market share of [30-40]%, i.e. almost three times the size of the merged entity, and on the other hand from the voice channel.[899] The Notifying Party also submits that the merged entity will face increasing competition from MarketAxess, which is expanding its presence in Europe. Finally, according to the Notifying Party, while Bloomberg and Tradeweb both have a pan-European focus, MTS' volumes overstate its market position as its focus is on the Italian domestic market.[900] The Notifying Party further contends that the Parties' combined share in electronic (excluding pure voice) D2C European non-government bond trading would be modest (at approximately [20-30]% in 2018, and more recently [10-20]% in 2019) and would not give rise to any affected markets.[901]

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892 Form CO, paragraph B.189.
893 Form CO, paragraph B.190.
894 Form CO, paragraphs B.228-232.
895 Form CO, paragraphs B.224-227.
896 Form CO, paragraphs B.238 and B.249ff.
897 Form CO, paragraphs B.238 and B.249ff.
898 Form CO, paragraph B.256.
899 Form CO, paragraphs B.225ff.
900 Form CO, paragraph B.280.
901 Form CO, paragraph B.280.

4.4.2.2. The Commission's assessment

(775) The Commission considers that the Transaction does not give rise to competition concerns on the plausible market of the D2C electronic provision of trading services for non-government bonds in the EEA (which is the only plausible market for the trading of non-government bonds that was affected in the last three years). The Commission takes this view for the following reasons.

(776) *First*, the Transaction only gives rise to an affected market for the provision of electronic trading services for non-government bonds in its D2C sub-segment, in the EEA, in 2018 and 2017. Based on the most recent market data (i.e. 2019 figures), the combined share of the merged entity does not exceed 20%.

(777) *Second*, even in 2018, the Parties' combined market share remained limited and their market share levels indicate that the Transaction is not liable to impede effective competition in this market. According to the Horizontal Merger Guidelines,[902] combined market shares below 25% may provide a presumption that the concentration is not likely to impede effective competition. In the present case, the Parties' combined market share remained below 25% in the past three years, and has been on a [change in market share] trend since 2016, which provides a presumption that the Transaction is not likely to impede effective competition in the provision of electronic D2C trading services for non-government bonds.

(778) *Third*, the share increment contributed by LSEG is small (below [0-5]%), and, as a result, the HHI levels further indicate that the Transaction is not likely to impede effective competition in the provision of electronic D2C trading services for non-government bonds. In this market, the HHI delta is below 150. According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150.[903]

(779) *Fourth*, the combined entity will continue to face competitive constraints from a number of rivals in the market for the D2C electronic trading of non-government bonds in the EEA, including from Bloomberg and MarketAxess. Each of these players has a higher share than LSEG in the market for the provision of D2C electronic trading of non-government bonds in the EEA.

(780) *Fifth*, the respondents to the market investigation did not raise any concerns in relation to the impact of the Transaction on the market for the D2C electronic trading of non-government bonds in the EEA.[904]

(781) *Lastly*, for the sake of completeness, the Commission notes that the proposed commitment to divest Borsa Italiana, further discussed in Section 5 below, involves the divestment of LSEG's activity in the provision of electronic D2C trading services for non-government bonds. As such, the commitment to divest Borsa Italiana removes the overlap, and the affected market, between the Parties in the D2C electronic provision of non-government bonds.

4.4.2.3. Conclusion

(782) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission

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902 Horizontal Merger Guidelines, paragraph 18.

903 Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

904 See Questionnaire 14 to general trading customers, Doc ID 6464.

concludes that the Transaction does not significantly impede competition in the market for the provision of D2C electronic non-government bonds trading services.

4.4.3. Provision of Trading Services for Exchange Traded Products

(783) The Transaction gives rise to an horizontally affected market in the provision of trading services for ETPs in the EEA (see Section 3.7 above for the relevant market definitions within cash equities), as well as in the potential sub-segment of ETP trading services for RFQ protocols only.

(784) In terms of market shares, as shown in Table 70 to Table 72 above, the Parties' combined market shares exceed 20% in the following potential markets:[905]

(a) The provision of trading services for ETPs in the EEA, where LSEG and Refinitiv respectively held a share of [30-40]% and [0-5]% in 2019 based on the number of trades (and of [10-20]% and [10-20]% in 2019 based on the notional value traded).

(b) The provision of trading services for ETPs in the EEA through RFQ protocols only, where LSEG and Refinitiv held a respective share of [0-5]% and [40-50]% in 2019 based on the number of trades (and of [0-5]% and [40-50]% in 2019 based on the notional value traded).

4.4.3.1. The Notifying Party's view

(785) According to the Notifying Party, the Transaction does not raise competitive concerns with regard to the trading of ETPs in the EEA for the reasons described below.

(786) *First*, the Notifying Party claims that the Parties' combined shares are 'not concerning given that, for the provision of trading services for ETPs at EEA level, (i) in terms of volume traded the Parties' combined share amounted to [40-50]% and the increment brought by Tradeweb was of [0-5]% and (ii) in terms of value, the combined market share of the Parties amounted to [30-40]%, with an increment of [10-20] % brought by Tradeweb.[906] The Notifying Party further submits that this difference between value and volume-based shares reflects the different focuses of LSEG and Refinitiv in the ETP trading space, as well as the fact that customers use Tradeweb primarily for larger trades.[907]

(787) *Second*, the Notifying Party contends that the Parties are not closely competing and underlines that LSEG's mainly offers electronic order book while Tradeweb operates on the basis of an RFQ protocol and focuses on large size block trades in ETPs where market participants want to be able to trade in a fully disclosed bilateral environment that is MiFID II compliant.[908] According to the Notifying Party, even the RFQ platform of LSEG introduced in 2016 is not closely competing with Tradeweb because, to trade on LSEG (or an RM)'s RFQ, customers need to be exchange members so that such trades tends to be broker-to-broker (in a similar way to order book trading) rather than direct bilateral trades between the sell-side and buy-side trading counterparties that occur on MTFs offering the RFQ protocol (such as Tradeweb).[909] More generally, the Notifying Party claims that there are key

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905 The Transaction does not gives rise to an overlap, and thus an effected market, for the provision of trading services for ETPs using order book protocol onl y (as only LSEG is active in this segment).

906 Form CO, paragraphs A.228ff.

907 Form CO, paragraph A.230.

908 Form CO, paragraphs A. 232-233.

909 Form CO, paragraph A. 205.

differences between the LSEG and Tradeweb RFQ protocol, notably with regard to membership, trading rules, trading functionalities, clearing option, anonymity and minimum quantity.[910]

(788) *Third*, the Notifying Party claims that after the Transaction the combined entity will continue to be constrained by a number of significant competitors, including RMs such as Eurex, Euronext and SIX, and RFQ-based trading venues such as Bloomberg, RFQHubs, as well as numerous SIs.[911] According to the Notifying Party, Bloomberg is currently the leading ETP trading venue using RFQ protocol.[912]

(789) *Fourth*, the Notifying Party considers that switching trading venues for EEA-listed company-issued equities is easy and that, as was recognised by the UK Competition Commission in *BATS / Chi-X,*[913] the ability of customers to switch their trading business to existing venues or to sponsor the emergence of a new venue constrains trading venues.[914] According to the Notifying Party, the ability to switch is further underscored by the fact that most customers already execute trades on multiple venues and the best execution obligation contained in MiFID II.[915]

(790) *Fifth*, the Notifying party argues that there is no significant barriers to entry the market for ETPs trading and that there are recent examples of new entries in the market, such as the recent collaboration of MarketAxess with RFQHub to provide its clients with ETPs trading globally.[916] According to the Notifying Party, the European ETF sector is an attractive segment with significant growth, which will incentivise the expansion of new players.

(791) The Notifying Party does not consider it appropriate for the Commission to consider national markets for ETP trading.[917] However, the Notifying Party claims that even if the Commission decides to assess competition on the basis of a narrower market definition, the Transaction will not give rise to any competition concerns due to the lack of close competition between LSEG and Tradeweb.

4.4.3.2. The Commission's assessment

(792) The Commission considers that the Transaction does not give rise to horizontal competition concerns in the EEA market for the provision of trading services for exchange-traded products as well as in the possible sub-segment for RFQ trading only, for the following reasons.

(793) *First*, the Commission notes that, based on market share level and HHI, the Transaction is not liable to impede effective competition for the provision of ETP trading services via RFQ protocols in the EEA. Indeed, the market share increment contributed by LSEG in this market is small, namely of [0-5]% based on volume and below [0-5]% based on value, and, as a result, the HHI increment is below 150. According to the Horizontal Merger Guidelines,[918] the Commission is unlikely to identify horizontal competition concerns in a merger with a HHI delta below 150,

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910 Form CO, paragraph A.210, Table 11
911 Form CO, paragraph A.234.
912 Form CO, paragraph A.235.
913 UK Competition Commission, Report on the anticipated acquisition by BATS Global Markets, Inc of Chi-X dated 24 November 2011, paragraphs 20, 22.
914 Form CO, paragraph A.215.
915 Form CO, paragraph A.216.
916 Form CO, paragraphs A.2378 – A.239.
917 Form CO, paragraph A.240.
918 Horizontal Merger Guidelines, paragraph 20.

even when the HHI exceeds 2000, unless specific factors are present.[919] In the present case, the HHI for the market for the provision of ETP trading services via RFQ protocols remains below this threshold and it does not result from the Commission's investigation that the market shares of LSEG do not accurately reflect its competitive constrain on competitors such as LSEG (or that the factors described in paragraph 20 of the Horizontal Merger Guidelines and listed in footnote 919 are present in this case). In a similar fashion, based on volume market share, the increment brought by the Transaction (via Refinitiv's Tradeweb) is small, namely [0-5]% and the HHI increment is below 150. In addition, it does not result from the Commission's investigation that the market shares of LSEG do not accurately reflect its competitive constrain on competitors such as LSEG (or that the factors described in paragraph 20 of the Horizontal Merger Guidelines and listed in footnote 919 are present in this case). Based on notional value traded, Tradeweb's increment is higher, namely of [10-20]% in 2019, as a result of which the HHI increment exceeds 150 (432). Nonetheless, the Commission considers that this fact needs to be examined in cunjunction with the other elements presented below in the present section with respect to trading services for ETPs..

(794) *Second*, the combined entity will continue to face competitive constraints from a number of rivals. Regarding the provision of trading services in the EEA for ETPs, the combined entity will remain constrained by numerous competitors such as Bloomberg (with respective 2019 value and volume market shares of [20-30]% and [0-5]%), Deutsche Börse (with market shares of [5-10]% and [20-30]%), Euronext (with market shares of [0-5]% and [10-20]%), and Sixt (with market shares of [5-10]% and [5-10]%). In the potential sub-segment of the trading of ETPs based on RFQ protocol, the combined entity will remain constrained by Bloomberg, which market share exceeded the share of the combined entity and amounted to [50-60]% and [50-60]% in 2019 based on value and volume respectively, and by RFQHub, which market share amounted to [0-5]% in 2019 based on value and volume.

(795) *Third*, the Commission's investigation evidence that the Parties do not compete closely for the provision of trading services for ETPs in the EEA. LSEG's main offering is its electronic order book on LSE and Borsa Italiana, while Tradeweb operates on the basis of an RFQ protocol and focuses on large size block trades. This explains the very large difference in LSEG's and Refinitiv's market shares in ETP trading services when considered on a volume or a value basis. Indeed, LSEG's market share is higher in volume than in value ([30-40]% versus [10-20]%), while it is the opposite for Tradeweb ([0-5]% in volume and [10-20]% in value).

(796) *Fourth*, the respondents to the market investigation did not raise concerns in relation to the impact of the Transaction on the EEA-wide market for the provision of trading services for ETPs, or its possible sub-segment for RFQ protocol trading only.[920]

(797) *Lastly*, for the sake of completeness, the Commission notes that the proposed commitment to divest Borsa Italiana, further discussed in Section 5 below, involves the divestment of a part of LSEG's activity in the provision of trading services for

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919 Ibid. These factors are: (a) a merger involves a potential entrant or a recent entrant with a small market share; (b) one or more merging parties are important innovators in ways not reflected in market shares; (c) there are significant cross-shareholdings among the market participants; (d) one of the merging firms is a maverick firm with a high likelihood of disrupting coordinated conduct; (e) indications of past or ongoing coordination, or facilitating practices, are present; (f) one of the merging parties has a pre-merger market share of 50 % of more.

920 See Questionnaire 14 to general trading customers; Doc ID 6464.

ETPs. As such, the divestment of Borsa Italiana would remove the overlap between the Parties for the provision of trading services for ETPs for RFQ protocols only. In addition, regarding the wider market for ETP trading services in the EEA, the divestment of Borsa Italiana would reduce the combined entity's market share in this market of [5-10]% by value and of [10-20]% by volume. Absent Borsa Italiana, the combined entity' share would amount to only [20-30]% in value and [20-30]% in volume.

4.4.3.3. Conclusion

(798) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the EEA market for the provision of trading services for exchange-traded products, regardless whether the market is segmented by trading protocol (i.e. RFQ or order book).

4.4.4. Provision of Trading Services for Company-issued stocks

(799) The Transaction gives rise to a horizontally affected market in relation to the provision of trading services for company-issued stocks in the EEA (see Section 3.7 above for the relevant market definitions within cash equities). As shown in Table 73 above, in 2019 in this market, LSEG (via LSE, Borsa Italiana, and Turquoise) held a share of [20-30]% by value and [30-40]% by value, while Refinitiv (via Tradeweb) held a share of below [0-5]% by volume and [0-5]% by volume.

4.4.4.1. The Notifying Party's view

(800) According to the Notifying Party, the Transaction does not raise competitive concerns with regard to the trading of company-issued stocks for the following reasons.

(801) *First*, the Notifying Party claims that the Parties' combined shares are not concerning. In the potential EEA –wide market for all EEA-listed company-issued equities, the combined market share of the Parties by volume in 2018 was [20-30]% with an increment of less than [0-5]%, brought by Tradeweb.[921]

(802) *Second*, the Notifying Party contends that the market participants use the trading service of LSEG and Tradeweb in a different way and therefore, the Parties are not close competitors. As mentioned above in relation to the horizontal overlap between the Parties' activities in ETP trading, LSEG offers solutions for the trading of the company-issued equities order book platforms or via the auction process of LSE and Borsa Italiana,[922] while Tradeweb is an RFQ-based venue.

(803) The Notifying Party indicates that LSEGs has recently introduced RFQ functionality of trading.[923] However, the Notifying Party claims that there are key differences between the LSEG and Tradeweb RFQ protocol, notably with regard to (i) membership, (ii) trading rules, (iii) trading functionalities, (iv) clearing option, (v) anonymity and (vi) minimum quantity.[924] In addition, LSEG had very limited number of trades executed using its RFQ functionality.[925] Therefore, the Notifying

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921 Form CO, paragraph A.189

922 Form CO, paragraph A.192

923 In October 2016, LSEG has launched RFQ functionality for trading cash equities and ETPs listed on LSE's SETS, and ETPs listed on Borsa Italiana's ETFplus. See Form CO, paragraph A.192

924 Form CO, paragraph A.210, Table 11

925 Form CO, paragraph A.192

Party considers that the Parties' RFQ platform do not complete closely with each other.

(804) *Third*, the Notifying Party claims that after the Transaction the combined entity will continue to be constrained by the presence of significant competitors.[926] The list of competitors includes RMs such as Bolsas y Mercados Espanoles (BME), Cboe Global Markets, Euronext, Deutsche Börse, Nasdaq Nordic, SIX Swiss Exchange; MTFs such as UBS MTF and Sigma-X MTF; and MTFs offering RFQ functionalities such as Instinet and SIs.

(805) In addition, the Notifying Party indicates that switching between trading venues is easy and most customers execute trades on several venues in order to comply with best execution obligation. Furthermore, according to the Notifying Party, there are no significant barriers to entry and there has been multiple examples of entry in recent years.[927]

4.4.4.2. The Commission's assessment

(806) The Commission considers that the Transaction does not give rise to competition horizontal concerns on the EEA market for the provision of trading services for company-issued stocks for the following reasons.

(807) *First*, the Commission notes that the market share levels indicate that the Transaction is not liable to impede effective competition in this market.

(808) According to the Horizontal Merger Guidelines,[928] combined market shares below 25% indicates that the concentration is not likely to impede effective competition. In the same vein, according to the Horizontal Merger Guidelines,[929] the Commission is unlikely to identify horizontal competition concerns in a merger with a HHI delta below 150, even when the HHI exceeds 2000, unless specific factors are present.[930]

(809) In the present case, by value the combined market share of the Parties remain below 25%. It amounted to [20-30]% in 2019 and has been constantly decreasing over the past three years. In addition, by value and by volume, the share increment contributed by Refinitiv (via Tradeweb) is small, namely below [0-5]% by value and of [0-5]% by volume. As a result, the HHI increment is below 150 for the provision of company-issued stocks trading services in the EEA, which indicates that the proposed Transaction is unlikely to cause significant change in the competitive landscape of this market.

(810) *Third*, the combined entity will continue to face competitive constraints from a number of rivals in the provision of trading services for company-issued stocks, including from Euronext, Deutsche Börse, Six, and Nasdaq. Each of these players has a higher share than Refinitiv (via Tradeweb) in the market for the provision of trading services for company-issued stocks.

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926 Form CO, paragraph A.213

927 Form CO, paragraphs A.238 – A.239

928 Horizontal Merger Guidelines, paragraph 18.

929 Horizontal Merger Guidelines, paragraph 20.

930 Ibid. These factors are: (a) a merger involves a potential entrant or a recent entrant with a small market share; (b) one or more merging parties are important innovators in ways not reflected in market shares; (c) there are significant cross-shareholdings among the market participants; (d) one of the merging firms is a maverick firm with a high likelihood of disrupting coordinated conduct; (e) indications of past or ongoing coordination, or facilitating practices, are present; (f) one of the merging parties has a pre-merger market share of 50 % of more.

(811) *Fourth*, the respondents to the market investigation did not raise any concerns in relation to the impact of the Transaction on the provision of trading services for company-issued stocks.[931]

(812) *Lastly*, for the sake of completeness, the Commission notes that the proposed commitment to divest Borsa Italiana, further discussed in Section 5 below, involves the divestment of a part of LSEG's activity in the provision of trading services for company-issued stocks. As such, the divestment of Borsa Italiana would reduce the combined entity's market share in this market of [0-5]% by value and of [10-20]% by volume. Absent Borsa Italiana, the combined entity' share would amount to only [10-20]% by value and [20-30]% by volume.

4.4.4.3. Conclusion

(813) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the EEA-wide market for the provision of trading services for company-issued stocks.

4.4.5. Aftermarket Broker research reports

(814) The Transaction gives rise to a horizontally affected market in aftermarket broker research reports worldwide and in the EEA. In the market for aftermarket broker research reports, Refinitiv offers Investext. LSEG is active in aftermarket broker research reports through Mergent. In 2019, both worldwide and in the EEA, Refinitiv held a share of [20-30]% in aftermarket broker research reports, while LSEG held a share of [0-5]% in these markets.

4.4.5.1. The Notifying Party's view

(815) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for aftermarket broker research reports (worldwide or in the EEA). According to the Notifying Party, Mergent has a minor position in this market and it does not compile its own broker research reports but simply redistributes Refinitiv's product. Post-Transaction, the combined entity will continue to face competition from several established players, e.g., S&P Global, Bloomberg, and FactSet.

4.4.5.2. The Commission's assessment

(816) The Commission considers that the Transaction does not give rise to competition concerns on the market for aftermarket broker research reports worldwide or in the EEA for the following reasons.

(817) *First*, the share increment contributed by LSEG's Mergent is below [0-5]% and, as a result, the HHI increment is below 150 both in the worldwide and in the EEA-wide markets for aftermarket broker ressearch reports. According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150.[932]

(818) *Second*, Mergent does not compile its own content sets in this market. It only redistributes Refinitiv's aftermarket research offering (Investex), targeting to

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931 Question 52, Questionnaire 14 to general trading customers, response of Banca Sella Holding Spa, Doc ID 6464..

932 Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

academic institutions. Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of aftermarket broker research reports. Post-Transaction, the combined entity will continue to face competitive constraints from a number of rivals in aftermarket broker research reports, including from Bloomberg, S&P Global, and FactSet. In an internal presentation of 13 August 2019, Refinitiv recognized that [competitive analysis of Refinitiv][933]. Mergent is not identified as a rival in this market.

(819) *Third*, in the market investigation, 72% of informative end-customers expect that the Transaction would have a neutral or positive impact on broker research reports (worldwide or in the EEA).[934]

(820) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the market for aftermarket broker research reports worldwide or in the EEA.

4.4.6. Earnings Estimates

(821) The Transaction gives rise to horizontally affected markets in earnings estimates both worldwide and in the EEA. In the market for earnings estimates, Refinitiv offers I/B/E/S estimates. LSEG is active in the market for earnings estimates through Mergent. In 2019, in this market, Refinitiv held a share of [10-30]% worldwide and [10-30]% in the EEA. In the same year, both worldwide and in the EEA, LSEG held a share of [0-5]% in the market for earnings estimates.

4.4.6.1. The Notifying Party's view

(822) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for earnings estimates (worldwide or in the EEA). According to the Notifying Party, Mergent has a minor position in this market and it does not compile its own earnings estimates reports but simply redistributes Refinitiv's product. Post-Transaction, the combined entity will continue to face competition from several established players, e.g., Bloomberg; FactSet; S&P Global; and SIX Financial.

4.4.6.2. The Commission's assessment

(823) The Commission considers that the Transaction does not give rise to competition concerns on the market for earnings estimates worldwide or in the EEA for the following reasons.

(824) *First*, in the relevant market for earnings estimates, the Parties have a combined share of [10-30]% worldwide and [10-30]% in the EEA. According to the Horizontal Merger Guidelines,[935] combined market shares below 25% indicate that the concentration is not likely to impede effective competition.

(825) *Second*, the share increment contributed by LSEG's Mergent is below [0-5]% and, as a result, the HHI increment is below 150. According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns

933 [internal document], Doc ID 4991-34042, page 1.

934 Question 84.1, Questionnaire 9 to information services end-customers, Doc ID 6480. None of the respondents raised competition concerns related specifically to aftermarket broker researh reports.

935 Horizontal Merger Guidelines, paragraph 18.

in a merger with an HHI increment below 150.[936] In any event, Mergent does not compile its own content sets in this market. It simply redistributes Refinitiv's earnings estimates content, making it available through applications targeting academic customers. Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of earnings estimates.

(826) *Third*, the combined entity will continue to face competitive constraints from a number of rivals in earnings estimates, including from the number one player in the market, Bloomberg, which holds a share of [30-40]% woldwide and [30-50]% in the EEA. Other players in this market include FactSet; S&P Global; and SIX Financial. Each of these rivals has a higher share than Mergent in the worldwide and EEA-wide markets for earnings estimates.

(827) *Fourth*, in the market investigation, 67% of informative end-customers expect that the Transaction would have a neutral impact on the market for earnings estimates (worldwide or in the EEA).[937]

(828) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the market for earnings estimates worldwide or in the EEA.

4.4.7. Fundamentals data

(829) The Transaction gives rise to a horizontally affected market in fundamentals data in the EEA.[938] In the market for fundamentals data, Refinitiv offers fundamentals data as part of its desktop and CRTD offering but also on a standalone basis (through a non-real-time datafeed). LSEG is active in fundamentals data through Mergent. In 2019, Refinitiv held a share of [10-30]% in this market in the EEA, while LSEG held a share of [0-5]%.

4.4.7.1. The Notifying Party's view

(830) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for fundamentals data (worldwide or in the EEA). According to the Notifying Party, Mergent has a minor position in this market and it does not compete closely with Refinitiv. Post-Transaction, the combined entity will continue to face strong competitors, e.g., Bloomberg; S&P Global; and FactSet.

4.4.7.2. The Commission's assessment

(831) The Commission considers that the Transaction does not give rise to competition concerns on the market for fundamentals data in the EEA for the following reasons.

(832) *First*, the Parties have a combined share of [10-30]% on the market for fundamentals data in the EEA. According to the Horizontal Merger Guidelines,[939] combined market shares below 25% indicate that the concentration is not likely to impede effective competition.

(833) *Second*, the share increment contributed by LSEG's Mergent is below [0-5]% and, as a result, the HHI increment is below 150. According to the Horizontal Merger

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936 Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

937 Question 84.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

938 The Transaction does not give rise to a horizontally affected market in fundamentals data worldwide (where the combined share of the Parties was [10-20]% in 2019).

939 Horizontal Merger Guidelines, paragraph 18.

Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150.[940] Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of fundamentals data.

(834) *Third*, the combined entity will continue to face competitive constraints from a number of rivals in fundamentals data, including from Bloomberg ([30-40]% share in 2019 in the EEA), S&P Global ([10-20]%), and FactSet ([10-20]%). Each of these players has a higher share than Mergent in the market for fundamentals data in the EEA.

(835) *Fourth*, in the market investigation, 72% of informative end-customers expect that the Transaction would have a neutral or positive impact on the market for fundamentals data (worldwide or in the EEA).[941]

(836) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the market for fundamentals data in the EEA.

4.4.8. Public filings

(837) The Transaction gives rise to horizontally affected markets in public filings both worldwide and in the EEA. In the market for public filings, Refinitiv offers public filings for over 80,000 companies (including 65,000 non-US companies).[942] LSEG is active in the market for public filings through Mergent, which offers information on 45,000 companies (including 25,000 US companies).[943] In 2019, in this market, Refinitiv held a share of [10-30]% worldwide and [10-30]% in the EEA. In the same year, LSEG held a share of [0-5]% worldwide while in the EEA, its share was [0-5]%.

4.4.8.1. The Notifying Party's view

(838) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for public filings (worldwide or in the EEA). According to the Notifying Party, Mergent has a minor position in this market. Post-Transaction, the combined entity will continue to face competition from several established players, e.g., Bloomberg; FactSet; S&P Global; and SIX Financial.

4.4.8.2. The Commission's assessment

(839) The Commission considers that the Transaction does not give rise to competition concerns on the market for public filings worldwide or in the EEA for the following reasons.

(840) *First*, in the relevant market for public filings, the Parties have a combined share of [10-30]% worldwide and in the EEA in 2019. According to the Horizontal Merger

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940 Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

941 Question 84.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

942 See https://www.refinitiv.com/en/financial-data/filings/company-filings-database (last accessed on 18 November 2020).

943 See https://www mergentonline.com/noticescm.php?pagetype=about#International%20Company%20Data (last accessed on 18 November 2020).

Guidelines,[944] combined market shares below 25% indicate that the concentration is not likely to impede effective competition.

(841) *Second*, the share increment contributed by LSEG's Mergent is below [0-5]% and, as a result, the HHI increment is below 150. This is unlikely to give rise to horizontal competition concerns, according to the Non-Horizontal Merger Guidelines.[945] Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of public filings, regardless of the geographic scope of the market.

(842) *Third*, the combined entity will continue to face competitive constraints from a number of rivals in public filings, including from the number one player in the market, Bloomberg, which holds a share of [30-40]% woldwide and [30-50]% in the EEA. Other players in this market include FactSet; S&P Global; and SIX Financial. Each of these rivals has a higher share than Mergent in the worldwide and EEA-wide markets for public filings.

(843) *Fourth*, in the market investigation, 72% of informative end-customers expect that the Transaction would have a neutral impact on the market for public filings (worldwide or in the EEA).[946]

(844) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the market for public filings worldwide or in the EEA.

4.4.9. Time series of economic data

(845) The Transaction gives rise to horizontally affected markets in time series of economic data both worldwide and in the EEA. In the market for time series of economic data, Refinitiv offers Datastream. LSEG is active in the market for time series of economic data through Mergent. In 2019, in this market, Refinitiv held a share of [10-30]% worldwide and [20-30]% in the EEA. In the same year, LSEG held a share of [0-5]% worldwide while in the EEA, its share was [0-5]%.

4.4.9.1. The Notifying Party's view

(846) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for time series of economic data (worldwide or in the EEA). According to the Notifying Party, Mergent has a minor position in this market. Post-Transaction, the combined entity will continue to face competition from several established players, e.g., Bloomberg; FactSet; IHS Markit; and S&P Global.

4.4.9.2. The Commission's assessment

(847) The Commission considers that the Transaction does not give rise to competition concerns on the market for time series of economic data worldwide or in the EEA for the following reasons.

(848) *First*, in the relevant market for time series of economic data, the Parties have a moderate combined share of [10-30]% worldwide and [20-30]% in the EEA in 2019. Only the top end of this market share range – and only if the market is defined as limited to the EEA - is slightly above the combined 25% market share threshold

944 Horizontal Merger Guidelines, paragraph 18.
945 Horizontal Merger Guidelines, paragraph 20.
946 Question 84.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

indentified in the Horizontal Merger Guidelines,[947] below which a concentration is not likely to impede effective competition.

(849) *Second*, the share increment contributed by LSEG's Mergent is below [0-5]% both worldwide and in the EEA. As a result, the HHI increment is below 150. According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150.[948] Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of time series of economic data, regardless of the geographic scope of the market.

(850) *Third*, the combined entity will continue to face competitive constraints from a number of rivals in time series of economic data, including from the number one player in the market, Bloomberg, which holds a share of [30-40]% woldwide and [30-50]% in the EEA. Other competitors in this market include FactSet; IHS Markit; and S&P Global. Each of these rivals has a share that is higher than or at least comparable with Mergent's in the worldwide and EEA-wide markets for time series of economic data.

(851) *Fourth*, in the market investigation, 81% of informative end-customers expect that the Transaction would have a neutral impact on the market for time series of economic data (worldwide or in the EEA).[949]

(852) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the market for time series of economic data worldwide or in the EEA.

4.4.10. Convertible bonds index licensing

(853) The Transaction gives rise to horizontally affected markets in convertible bond index licensing worldwide. In the market for convertible bond index licensing, Refinitiv offers the Thomson Reuters Global Convertible Index. LSEG is active in the market for convertible bond index licensing offering the FTSE Canada Convertible Index. In this market, Refinitiv held a share of [30-40]% worldwide in 2019 and FTSE held a share of [0-5]%.

4.4.10.1. The Notifying Party's view

(854) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for convertible bond index licensing worldwide. According to the Notifying Party, FTSE has negligible presence in this market, as its FTSE Canda Convertible Index is [quantity sold]. Post-Transaction, the combined entity will continue to face competition from several rivals, e.g., ICE, Exane, UBS, and Bloomberg.

4.4.10.2. The Commission's assessment

(855) The Commission notes that in the relevant market for convertible bond index licensing, the Parties have a combined share of [30-40]% worldwide in 2019.

947 Horizontal Merger Guidelines, paragraph 18.
948 Horizontal Merger Guidelines, paragraph 20.
949 Question 84.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

(856) However, the Commission considers that the Transaction does not give rise to competition concerns on the market for convertible bond index licensing worldwide for the following reasons.

(857) *First*, the share increment contributed by FTSE Russell is [0-5]% or less. As a result, the HHI increment is below 150. This is unlikely to give rise to horizontal competition concerns, according to the Non-Horizontal Merger Guidelines.[950] Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of convertible bond index licensing.

(858) *Second*, the combined entity will continue to face competitive constraints from a number of rivals in convertible bond index licensing, including from ICE, which holds a share of [10-20]% worldwide. Other players in this market include Exane, UBS, and Bloomberg. Each of these rivals has a share that is higher than or at least comparable with FTSE Russell's in the worldwide market for convertible bond index lisencing.

(859) *Third*, Refinitiv and FTSE Russell do not compete closely in the market for convertible bond index licensing. A briefing prepared by Refinitiv in […] for a [business secrets] identifies [competitive analysis of Refinitiv] as "*key competitors*" to Refinitiv but it does not include any reference to FTSE Russell.[951] In the same vein, in the market investigation none of the end-customer respondents mentioned FTSE Russell indices as alternatives to Refinitiv's convertible bond indices.[952]

(860) *Fourth*, the respondents to the market investigation did not raise substantiated concerns regarding the impact of the Transaction on the worldwide market for convertible bond index licensing.[953]

(861) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the worldwide market for convertible bond index licensing.

4.4.11. Money markets index licensing

(862) The Transaction gives rise to a horizontally affected market in money markets index licensing worldwide.[954] In the market for money markets index licensing, FTSE Russell offers FTSE World Money Market Indexes ("WMMI") worldwide, including in the EEA. Refinitiv also supplies money market indices but only outside the EEA. FTSE Russell held a share of [20-30]% in the worldwide market for money market indices in 2019, while Refinitiv held a share of [0-5]%.

4.4.11.1. The Notifying Party's view

(863) The Notifying Party submits that the Transaction does not raise horizontal competition concerns in the market for money markets index licensing. According to the Notifying Party, Refinitiv has a [very small] position in this market. Post-Transaction, the combined entity will continue to face constraints from several competitors, e.g., ICE; EMMI; iMoneynet; and Bloomberg.

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950 Horizontal Merger Guidelines, paragraph 20.

951 [internal document], Doc ID 4257-32816, page 3.

952 Question 119, Questionnaire 9 to information services end-cutomers, Doc ID 6480.

953 Questions 140 and 141, Questionnaire 9 to informastion services end-customers, Doc ID 6480 and Question 36-37, Questinonaire Q10 to index providers, Doc ID 6460.

954 The Transaction does not give rise to a horizontally affected market in money markets index licensing in the EEA, as Refinitiv is not active in the EEA.

4.4.11.2. The Commission's assessment

(864) The Commission considers that the Transaction does not give rise to competition concerns on the worldwide market for money market index licensing for the following reasons.

(865) *First*, the Parties have only a moderate combined share of 28% on the worldwide market for money market index licensing, which is [increment] the combined [20-30]% market share threshold indentified in the Horizontal Merger Guidelines,[955] below which a concentration is not likely to impede effective competition.

(866) *Second*, the share increment contributed by Refinitiv is [0-5]% and, as a result, the HHI increment is below 150. According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150.[956] Thus, the proposed Transaction is unlikely to cause significant change in the competitive landscape of money market index licensing worldwide.

(867) *Third*, the combined entity will continue to face competitive constraints from a number of rivals in money market index licensing, including from ICE ([10-20]% worldwide share in 2019), EMMI ([10-20]%), iMoneyNet ([5-10]%), and Bloomberg ([0-5]%). Each of these players has a higher share than Refinitiv in the worldwide market for money market index licensing.

(868) *Fourth*, the respondents to the market investigation did not raise substantiated concerns regarding the impact of the Transaction on the worldwide market for money market index licensing.[957]

(869) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the worldwide market for money market index licensing.

4.4.12. Security identifiers

(870) LSEG licences SEDOLS to customers as security identifiers for various external uses (*i.e.* outside LSEG's systems and processes). Refinitiv offers RICs, which are identifiers primarily used to refer to information within the Refinitiv data ecosystem.

(871) The Parties have not been able to estimate market shares in a potential all securities identifiers market, citing the following reasons: first, some of the security identifiers are monetised through licensing for third party use (e.g. SEDOL, CUSIP), while some are a subset of the symbology licensed as an intrinsic part of a data vendor's service proposition (e.g. RIC), and some are provided on an open source or public basis (e.g. ISIN). It follows that there is no meaningful way of making value-based comparisons. Second, some providers publish how many securities their data covers (e.g. SEDOL), some publish how many financial instruments and issuers their dataset covers (e.g. CUSIP), and others publish how many potential identifiers are available for their code (e.g. FIGI), making quantity-based comparisons equally challenging. Nor have third party market participants and security identifier

955 Horizontal Merger Guidelines, paragraph 18.

956 Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

957 Questions 140 and 141, Questionnaire 9 to informastion services end-customers, Doc ID 6480 and Question 36-37, Questinonaire 10 to index providers, Doc ID 6460.

providers been able to estimate their own or the Parties' market shares during the Commission's market investigation.

4.4.12.1. The Notifying Party's view

(872) This Notifying Party submits that there is effectively no horizontal overlap between the Parties' activities in security identifiers, because RICs are used almost exclusively by users of Refinitiv products, and are rarely licensed to third parties. As a result, (i) for organisations that do not use Refinitiv products there is no close competition between LSEG and Refinitiv and (ii) for organisations that use Refinitiv products (and use RICs), the Notifying Party submits that it is very frequent that such organisations license SEDOLs in addition to RICs, so that already before the Transaction there is no substitutability or close competition between LSEG's SEDOLs and Refinitiv's RICs.

4.4.12.2. The Commission's assessment

(873) For the reasons set out below, the Commission considers that the Transaction does not give rise to competition concerns on the worldwide market for security identifiers, irrespective of whether all security identifiers constitute a relevant product market, or whether they should be segmented further by specific identifier.

(874) At the outset, the Commission notes that if security identifiers are segmented by specific identifiers, there is no overlap between the Parties' activities, because LSEG is only active in SEDOLs and Refinitiv is only active in RICs. The rest of this section will focus on the hypothesis that all security identifiers are part of the same product market.

(875) The Commission notes that it has received, as part of an anonymous submission from one of the Parties' customers, a high level expression of concerns regarding the potential anti-competitive horizontal effects of the Transaction in relation to security identifiers: *"Our second principal concern is that the transaction would increase the cost of securities identifiers (unique codes that identify securities and are licensed to customers for the purposes of trade execution, processing pricing data feeds, and price validation). LSEG currently offers the Stock Exchange Daily Official List ("SEDOL") and Refinitiv offers the Reuters Instrument Code ("RIC"). These are the only global securities identifiers that identify both the relevant securities and the specific markets on which they are traded. The transaction would, therefore, bring together the two closest competitors in this market, allowing the combined entity to raise prices for licensees, including [CONFIDENTIAL]."*[958] This submission appears to take the view that SEDOLs and RICs are part of the same product market, and to some extent exert some degree of competitive constraint on each other.[959] Nonetheless, for the reasons set out below, the Commission considers that the Transaction does not give rise to competition concerns on the worldwide market for security identifiers.

(876) *First*, the Commission's market investigation revealed that there is no particular closeness of competition between LSEG's SEDOLs and Refinitiv's RICs. In

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958 Anonymous submission of a customer of the Parties, dated 29 May 2020, Doc ID 4155

959 The Commission notes that in emails of 4 May 2020, 15 September 2020, and 5 November 2020 (Doc ID 7298), BVI reported to the Commission a recent increase in the price of SEDOLs. BVI noted that "[t]*he move may... not be linked directly to the Refinitiv acquisition by LSE as the coverage extension started years ago*." BVI did not raise any substantiated competition concerns regarding a horizontal overlap between SEDOLs and RICs as a result of the Transaction.

particular, when asked to rank the closest substitutes to LSEG's SEDOLs, customers rank RICs in third position only, after ISINs and FIGIs.[960] Similarly, when asked to rank the closest substitutes to Refinitiv's RICs, customers rank SEDOLs in fourth position only, after ISINs, FIGIs and "Others" ("Other" being, in the view of a number of respondents, Bloomberg Tickers).[961] A large customer, Crédit Agricole comments on the lack of substitutability between Refinitiv's RICs and other products: "*RIC is specific to Refinitiv and not an identifier used in the financial community.*"[962] In a similar fashion, Citigroup explains, regarding the existence of potential substitutes to LSEG's SEDOLS, *"There is none from our point of view."*[963]

(877) *Second*, the market investigation confirmed the Notifying Party's claim that users tend to license multiple identifiers at the same time, depending on their needs, with a mapping table, evidencing that customers have the ability to switch between different security identifiers in a timely manner, and suggesting that different security identifiers exert some degree of competitive constraints over each other. This is confirmed as well by public reports on the security identifiers market. For instance, in a market report from the Tabb group entitled "*Building a Framework for Innovation and Interoperability*" dated March 2017, it is clearly stated that "*In a survey to over 180 industry practitioners from banks, brokers, central securities depositories and exchanges, hedge funds and investment managers, regulators and vendors, it was determined that every financial institution maintains multiple security identifiers, including unique firm identifiers*".[964] A more recent market note from the Tabb group entitled "*A Case of Mistaken Identity: Is There Strength in Numbers?*" and dated April 2018 reveals that the use of multiple security identifiers is an increased trend in the market: "*Overall usage of multiple security identifiers has increased this year over last year. Firms are maintaining a greater number of security masters in 2018. […] Usage of the FIGI has increased substantially overall from 2017, particularly by hedge funds, vendors, banks and brokers.*"[965]

(878) *Third*, despite the fact that the Notifying Party was not in a position to estimate market shares in a potential all securities identifiers segment, the Commission estimates that the increment brought by Refinitiv's RICs through the Transaction is in all likelihood very small. This is because Refinitiv's direct revenue from third-party RICs licenses was [very small] and amounted to only approximately EUR […] in 2018 compared to over EUR […] of SEDOL revenues for LSEG in the same year. As such, even in the hypothetical extreme case that there were no competitors besides LSEG and Refinitiv in the global market for security identifiers (so that the total market size was limited to EUR […] only), the increment brought by Refinitiv would be [0-5]%, and the HHI increment would be […]. As a robustness check, in the scenario where LSEG's market share would be as high as 50%,[966] the increment

960 Question 152, Questionnaire 9 to information services end-customers, Doc ID 6480.

961 Question 153, Questionnaire 9 to information services end-customers, Doc ID 6480.

962 Question 152.1, Questionnaire 9 to information services end-customers, Doc ID 6480, response of Crédit Agricole.

963 Question 152.1, Questionnaire 9 to information services end-customers, Doc ID 6480, response of Citigroup.

964 See https://assets.bwbx.io/documents/users/iqjWHBFdfxIU/rh7ZP1vqcb1Q/v0, last consulted on 13 October 2020

965 See https://assets.bwbx.io/documents/users/iqjWHBFdfxIU/rm2MazHK91pE/v0, last consulted on 13 October 2020

966 When asked to estimate LSEG's market share in security identifiers at worldwide level, the vast majority (88%) of respondents mention figures below 50%, and a majority (52%) of respondents even mention figures below or equal to 20%, which would make this market non-affected on a hypothetical

brought by Refinitiv would be [0-5]%, and the HHI increment would be as low as […].[967]

(879) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in the worldwide market for for security identifiers, irrespective of whether all security identifiers constitute a relevant product market, or whether they should be segmented further by specific identifier.

4.5. Assessment of Non-Horizontal Effects

4.5.1. Total/partial input foreclosure relating to LSE venue data (upstream) and CRTDs (downstream) strengthening dominance in the market for CRTDs

(880) Venue data is used as an input in CRTDs. CRTDs combine data from different venues and other sources, aggregate them, normalise them, and offer them to the end-customer in real-time, albeit with a higher latency compared to the direct feed that the end-customer could procure from a venue.

(881) As explained above, venue data can be classified in two categories: real-time and non-real-time. The remainder of this Section focuses on real-time venue data, which represents the vast majority of LSEG's revenues in this market[968] and, being real-time, is the most relevant input for CRTDs.[969]

(882) The Notifying Party generates and commercialises real-time venue data from several trading venues that it operates. These include LSE, Borsa Italiana, MTS, EuroTLX, Turquoise, and BondsPro. The venue data from each of these trading venues belongs to a separate relevant market for the reasons explained in Section 3.11 above.

(883) Refinitiv designs and licenses CRTDs, including its flagship product Elektron Real Time. In *Reuters Instrument Codes*, the Commission found that Refinitiv was dominant in the market for CRTDs.[970] The Commission's market investigation in the present case confirms that Refinitiv remains dominant in the downstream market for CRTDs for the reasons explained in Section B.1 below.

(884) The combined entity could engage in total foreclosure of rivals in the market for CRTDs by denying them access to LSEG real-time venue data.[971] Put differently, total foreclosure would require the combined entity to become the exclusive redistributor of LSEG venue data at least for CRTDs. This would strengthen Refinitiv's dominance in the market for CRTDs. Such foreclosure would harm actual

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overall worldwide market for all security identifiers. Only two respondents provide figures above 50% (namely 65% and 80%), and one respondent responds "very large" without providing a figure. See responses to Question 46, Questionnaire 19 to information services end-customers, Doc ID 6469.

967 According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150. See the Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

968 Form CO, Information Services, Table 12.

969 To reach LSEG real-time venue data through a CRTD, the end-customer needs to have a non-display licence directly from LSEG. The non-display licence is granted at enterprise level (Form CO, paragraph D.94).

970 Commission decision of 20 December 2012 in Case AT.39654, *Reuters Instrument Codes*, paragraph 29.

971 Refinitiv is already vertically integrated in the sense that it generates venue data (upstream) and offers CRTD (downstream). The remainder of this Section focuses on foreclosure concerning LSE venue data, which is merger-specific. Based on the Commission's market definition for venue data in Section 3.11 above, there is no horizontal overlap between the activities of the Parties in the upstream market.

and potential competitors by decreasing the quality of their products – thus reducing their ability to effectively compete in the market – and by increasing entry barriers. This would also force end-customers to incur additional costs to switch to or add a Refinitiv CRTD to access LSEG venue data.

(885) Partial foreclosure of rivals in the market for CRTDs could be achieved by significantly degrading the quality of LSEG venue data, when end-customers license them through CRTDs other than Refinitiv's. This partial technical degradation would also serve to strengthen Refinitiv's dominance in CRTDs and would harm competitors and end-customers alike. Quality degrading strategies that the combined entity could engage in include:

(a) Providing faster updates on upcoming feed changes internally to Refinitiv;

(b) Providing additional instructions internally to Refinitiv regarding any changes on the delivery of the venue data; or

(c) Providing better connection technology internally to Refinitiv in relation to LSEG's matching engine.[972]

(886) The non-horizontal effects regarding LSE venue data (upstream) and CRTDs (downstream) are considered on a standalone basis, separately from the analogous input foreclosure relating to UK equity index data (upstream) and CRTDs (downstream). Hence, the ability, incentive and impact assessments of the Commission in this Section are independent of the assessments in Section 4.5.3.

4.5.1.1. The Notifying Party's view

(887) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to engage in total or partial input foreclosure against rivals in CRTDs regarding LSE venue data. In any event, the Notifying Party adds that any total or partial foreclosure strategy would not have a material impact on CRTD vendors or end-customers.[973]

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[972] This Section focuses on the vertical overlap between LSE venue data and CRTDs. As explained above in fn. 472 above, the Commission leaves open the question whether ULLRTDF belong to the market for CRTDs or whether they constitute a separate market. Assuming that ULLRTDFs belong to the market for CRTDs, then the analysis in this Section applies. If the ULLRTDFs were to be considered as a standalone market, the Commission notes the following. In its Observations on the SO, McKay submits: "*exchanges in general and LSEG in particular have the ability and the incentive to extend* [their] *monopoly to the provision of venue data in data centers away from their venue. The natural monopoly of venue data can be extended to an unnatural monopoly for ULLRTDF delivered at away data centers... LSEG has already foreclosed McKay for the provision of ultra-low latency telecom services between its trading venue and the CBOE trading venue in Slough"* (McKay's Observations to the SO, Doc ID 7046, page 3). Refinitiv is not active in the relevant market for ULLRTDFs (see RFI 46 reply, question 18(a) and [internal document], Doc ID 4991-24183, page 14). If the proposed Transaction gave rise to vertically affected markets in LSE venue data (upstream) and ULLRTD (downstream), any concerns raised by McKay are not merger-specific. The Commission considers that the proposed Transaction is unlikely to change the combined entity's ability or incentive to engage in input foreclosure in the downstream market for ULLRTDs. The Commission also notes that its market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the market for ULLRTDs as a result of input foreclosure involving LSEG venue data.

[973] Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 6ff and Response to the SO, Information Services, paragraphs 3ff.

A. Arguments related to ability

(888) Regarding ability to engage in total/partial input foreclosure in CRTDs by restricting access to LSEG venue data, the Notifying Party puts forward the following arguments.

(889) *First*, data coverage and an individual venue's data are not a critical component for CRTDs. Redistribution fees (fees charged by trading venues to data vendors for the distribution of venue data) and end-customer licensing fees for venue data are consistent with venue data being a non-critical input in the downstream market. The LSEG venue data redistribution fee represents less than [a very small percentage] of the total market size for CRTDs.[974] The end-customer license fees for LSEG venue data represent less than [a very small percentage] of the total market size for CRTDs.[975] In the response to the SO, the Notifying Party adds that the vast number of venues and other data sources that data vendors carry means that coverage of a given venue cannot meaningfully impact a data vendor's CRTD offering.[976]

(890) *Second,* LSEG venue data constitute a small part of the CRTD offering. For example, real-time venue data from LSEG venues only accounted for [a very small percentage] of all real-time data feeds distributed through Elektron Real Time in 2018; in other words, financial instruments traded on LSEG venues made up only [a very small percentage] of all the unique financial instruments covered in Elektron Real Time in 2018.[977]

(891) *Third,* only a minority of end-customer respondents stated that they would switch away from their current CRTD provider if it did not offer LSEG venue data (at all or at the required level of quality/latency).[978]

(892) *Fourth,* regarding partial foreclosure in particular, the Notifying Party notes that based on its current infrastructure setting, it delivers LSE real-time venue data at the same time to all customers. Any change to LSEG's existing model would require a rebuilding of LSEG's infrastructure.[979] The Notifying Party notes that periodical infrastructure updates take place only following advance warnings and "*dress rehearsals*" with all end-customers, with no exclusions.[980]

B. Arguments related to incentive

(893) Regarding incentives to engage in total/partial input foreclosure in CRTDs by restricting access to LSEG venue data, the Notifying Party puts forward the following arguments.

(894) *First*, the combined entity has every incentive to ensure wide distribution for its venue data (including LSE venue data). The more widely LSEG venue data is distributed, the more it will attract traders to LSEG's trading venues. Total

974 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 1.
975 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 2.
976 Response to SO, Information Services, paragraph 12.
977 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 11.
978 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 11 and Response to SO, Information Services, paragraphs 16ff.
979 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 33-35.
980 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 36 and RFI 29 reply, question 10.

foreclosure of LSEG venue data could lead to a shift of liquidity from LSEG's venues to other trading venues.[981]

(895) *Second*, Refinitiv faces significant competitive constraints in the downstream market for CRTDs. While Refinitiv has a long history of offering CRTDs and thus an established presence in the market, there are a number of players today that have developed a competitive offering. Given the many parameters that end-customers take into account when choosing a CRTD provider, it is highly unlikely that the competitive relevance of rival data vendors would be diminished as a result of any attempted input foreclosure strategy.[982] Against this background, the Notifying Party recalls in the response to the SO that Refinitiv is not dominant in the worldwide market for CRTDs.[983]

(896) *Third*, the Notifying Party submits that Tradeweb's decision to distribute its venue data exclusively through Refinitiv cannot be taken as an indication that the combined entity would have similar incentives to make Refinitiv the sole distributor of LSE venue data. According to the Notifying Party, this is because Tradeweb and LSEG have different business models, different incentives, and different customers. The decision by Tradeweb to adopt an exclusive distribution model for a subset of its content was a strategic decision that Tradeweb first made approximately twenty years ago shortly after its launch. [commercial rationale]. In this context, Tradeweb entered in 2001 into an exclusive distribution agreement with MoneyLine Telerate, a then leading information service provider. The exclusive agreement was renewed over the years with Reuters (who acquired MoneyLine Telerate in 2005), Thomson Reuters, and Refinitiv.[984] In the response to the SO, the Notifying Party adds that to determine the incentives of the combined entity, the Commission should consider not only Tradeweb's exclusive distribution model but also LSEG's own commitment to open access, which is both long-standing and Group wide.[985]

(897) *Fourth*, a 2016 abuse of dominance investigation into the alleged foreclosure of Borsa Italiana's venue data, carried out by the Italian competition authority (*Autorità Garante della Concorrenza e del Mercato*, "AGCM") does not, according to the Notifying Party, suggest that the combined entity would have an incentive to engage in foreclosure in CRTDs post-Transaction.[986] On the contrary, the AGCM's decision shows that Borsa Italiana had neither the ability nor the incentives to adopt an exclusive distribution model for its CRTDs. Borsa Italiana distributed its CRTDs through its vertically integrated distributor BIMS and through other third-party data vendors, consistent with an open distribution model. In the response to the SO, the Notifying Party recalls that AGCM's decision did not conclude on the infringement. The references to Borsa Italiana's "alleged behaviour" were not substantiated by a proper investigation, no formal decision was taken on the alleged infringement and this point cannot be considered as evidence.[987]

(898) *Fifth*, it is implausible that the combined entity would interfere with end-customers' ability to access LSEG venue data through rival CRTD providers. In this case,

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981 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 42-43.
982 Response to the decision pursuant to Article 6(1)(c), Information services, Annex 2, paragraphs 62ff.
983 Response to the SO, Information Services, paragraphs 27ff.
984 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 47ff.
985 Response to the SO, Information Services, paragraph 47.
986 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 58ff. The abuse of dominance investigation of the AGCM is discussed further in recitals (1038) to (1043) below.
987 Response to the SO, Information Services, paragraphs 52ff.

according to the Notifying Party, the costs in the form of customer retaliation and possible regulatory reaction would be too great.[988] LSEG's and Refinitiv's customer-bases are characterised by a relatively small number of very large customers. Considering LSEG's information services division ("ISD") revenues, only ca. [a very small percentage] of LSEG's customers contribute ca. [a high percentage] of its total revenues (with […] customers alone contributing [a significant percentage] of LSEG's ISD revenues). In the face of such a strategy, these customers could, according to the Notifying Party, credibly threaten to turn to a number of alternative offerings in any of the information services products offered by the Parties. Moreover, any such attempted strategy would be picked up swiftly by regulators (whether through their market intelligence teams or through being alerted to the issue by rivals) and investigated as a matter of high priority.

C. Arguments related to impact

(899) Regarding the impact on the market for CRTDs of a total/partial input foreclosure strategy involving LSE venue data, the Notifying Party puts forward the following arguments.

(900) *First*, a total/partial foreclosure strategy would not harm rivals in the short or in the longer term (including smaller rivals). Such a strategy would not encourage end-customers to switch away from their current provider to Refinitiv, as switching is difficult in the market for CRTDs. Nor can it be inferred from Refinitiv's market share today in CRTDs that "*any*" foreclosure strategy would harm effective competition.[989]

(901) *Second*, given that absent the Transaction no entry is anticipated in the next three years in the market for CRTDs, the prospects of entry in this market cannot be negatively impacted by a total/partial foreclosure strategy.[990] In any event, in the response to the SO, the Notifying Party adds that "*it cannot be inferred in the absence of credible evidence... that the mere likelihood that the combined entity would carry out a foreclosure strategy post-Transaction may create a strong deterrent effect on potential*" entry.[991]

(902) *Third*, the Transaction would not increase the costs of end-customers in the market for CRTDs and in any event such a cost increase could not result in a significant impediment to effective competition. In case users of rival CRTDs were required to buy an additional CRTD from Refinitiv to continue accessing LSEG venue data, the Notifying Party submits that the ensuing increase in CRTD expenditures effectively amounts to an increase in LSEG venue data license fees. LSEG could impose such an increase in the upstream market, regardless of the Transaction. In other words, such price increase is not merger specific but simply reflects LSEG's market power in the upstream market for LSE venue data.[992] The fact that such raise in licence fees has not occurred pre-Transaction proves that it would not be feasible post-Transaction either. In any event, any increase in CRTD expenditure (as a result of the purchase of an additional Refinitiv solution) would be minimal and thus not constitute a significant impediment on effective competition.[993]

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988 Form CO, paragraph D.490.
989 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 88-98
990 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 99-100.
991 Response to the SO, Information Services, paragraph 67.
992 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2.
993 Response to the SO, Information Services, paragraph 68.

4.5.1.2. The Commission's assessment

A. Ability to engage in total/partial input foreclosure

(903) The Commission considers that the combined entity has the ability to engage in total/partial input foreclosure strategies in the market for CRTDs involving LSE venue data. The remainder of this Section explains the reasons underlying the Commission's conclusion. Recitals (906)ff show that venue data from key venues and LSE venue data in particular are an important input for CRTDs. Recitals (936)ff discuss the Notifying Party's market power in relation to LSE venue data. Finally, recitals (942)ff explain why the combined entity would have the ability to foreclose rivals in CRTDs also through technical degradation of access to LSE venue data.

A.1. Venue data from key venues (including LSE) is an important input for CRTDs

(904) As explained in Section Consolidated Real-Time Datafeeds 3.9 above, the role of CRTD providers is to aggregate, cleanse, and normalise market data from different venues and other sources. Venue data is the basis of a CRTD offering. In an internal document dated 2018Q2 providing sales guidance, Refinitiv identified content (including venue data) as [discussion of business strategy] and acknowledged that [discussion of business strategy].[994]

(905) The results of the market investigation support this conclusion. "*Data coverage*" is the most important parameter that end-customers take into account when selecting CRTDs.[995] Data vendors agree that "*breadth of data*" or "*variety of resources*" is the most important parameter that end-customers take into account when selecting their CRTD (together with price).[996] This includes venue data. End-customer BlackRock confirms this: "*coverage (e.g., having all of the exchanges) is an important factor [of differentiation]... ACTIV Financial and other small providers often have coverage gaps that they only fill when they see sufficient customer demand*".[997] End-customer Magtia submits: "*Magtia has participated in over 30 Proof of Concepts for datafeed migrations projects - all bar 5 have been abandoned. The main reason for not progressing with the project is exchange coverage: the small vendors do not carry ALL the required exchanges the Desk or application requires*".[998] In the same vein, a third-party market report confirmed that coverage of all required sources (i.e., venue data) is the criterion that most end-customers consider as most important when evaluating CRTD providers.[999]

(906) In its reply to the decision pursuant to Article 6(1)(c), the Notifying Party counter-argues that venue data is an important input for CRTDs as a *category* of data but this does not mean that a CRTD provider needs access to data from *each* venue or from a *specific* venue to compete effectively.[1000] It suffices that the CRTD provider carries

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994 [internal document], Doc ID 4991-21358, page 9. In the Response to the SO, the Notifying Party submits that the reference to content in this internal document […] (Response to the SO, Information Services, paragraph 11). The Commission does not contest this but it also notes that in the appendix referenced in this slide, […] (see [internal document], Doc ID 4991-21358, pages 43-52).

995 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6480.

996 Question 47, Questionnaire 8 to data vendors, Doc ID 6479.

997 Question 15.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

998 Question 20.2.1, Questionnaire 19 to information services end-customers, Doc ID 6469 (emphasis added).

999 See Greenwich Associates Report, "Consolidated Market Data Feeds Thrive Despite Rising Data Fees", 2018, page 2, included in RFI 16 reply, Annex 2.1.

1000 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 6ff and 12.

"*a wide range of the many thousands of data sources that end-customer may use*".[1001]

(907) However, the results of the market investigation and Refinitiv's internal documents contradict the argument of the Notifying Party.

(908) *First*, access to data from *key* regulated venues (including LSE) is critical for on-trading floor customers. CRTDs are typically used by on-trading floor customers in trading and sales applications.[1002] Under Article 27 MiFID II, on-trading floor customers are subject to best execution requirements. This means that they must access data from several trading venues before executing a trade to ensure that they achieve the best possible result for their clients.[1003] If the financial instrument they are trading is listed on LSE, this means they must access LSE venue data, otherwise it is not likely they can prove best execution without this significant source of pricing information. While single-company stock in particular can be cross-listed on several exchanges, and is traded in pan-European MTFs, the primary listing exchange of the stock continues to be an important trading venue. In this context, LSE accounts for [10-20]% of equity trading in the EEA, a close second behind CBOE at [10-20]%.[1004]

(909) An end-customer, Danske Bank, submits: "*venue data are unique datasets – and can as such not be substituted by other sources, i.e. you cannot be a market participant without having the best bid/ask prices – having the next best prices is not an option – also from a regulatory perspective (best execution). In general, customers require a global portfolio, so only small/marginal markets can be deselected*".[1005] Refinitiv itself confirmed this in a submission to the Commission in the context of an earlier antitrust case: "[Refinitiv's confidential submission to the Commission]".[1006]

(910) *Second*, access to data from *as many venues as possible* is also a significant source of product differentiation for the downstream market of CRTDs. In an internal presentation dated December 2018, Refinitiv compared its CRTD with [competitor] under the heading […]. It noted that "[competitor]][competitive analysis of Refinitiv]".[1007] In the same presentation, Refinitiv reproduces the comments of a third-party market provider, [competitive analysis of Refinitive].[1008]

1001 Response to the decision pursuant to Article 6(1)(c), Information services, paragraph 7.

1002 Refinitiv's internal documents confirm this. In a presentation of August 2018, trading (or "front-office") applications are shown to represent […] of the business cases for Enterprise Real Time and Historical Content; Elektron as a Service; Real Time in the Cloud; and Elektron Direct Feeds. In the same presentation, sell-side front office end-customers (i.e., sell-side on-trading floor customers) […] (see […], Form CO, Annex 287 – Document 12, page 5). As Refinitiv's Managing Director for Trading put it, two years after the launch of Elektron: "Elektron is our enterprise infrastructure, connecting financial institutions and trading venues across the globe and delivering real-time data to human traders via desktops and to machines for high frequency and algorithmic trading" (see https://a-teaminsight.com/qa-thomson-reuters-peter-moss-on-elektron-at-age-two/?brand=ati, last accessed on 9 November 2020).

1003 Article 27(1) recast MiFID: "*Member States shall require that investment firms take all sufficient steps to obtain, when executing orders, the best possible result for their clients taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order*".

1004 Form CO, Case Equities, Table 7.

1005 Question 118, Questionnaire 9 to information services end-customers, Doc ID 6480.

1006 [internal document], Doc ID 4991-3576.

1007 [internal document], Doc ID 4991-15348, page 62.

1008 [internal document], Doc ID 4991-15348, page 66.

Figure 10

[…]

Source: [internal document], Doc ID 4991-15348, page 66.

(911) In its response to the SO, the Notifying Party submits that the reference to the top 20-30 exchanges is entirely inconsistent with the view that a single exchange or venue could somehow be important to a data vendor's CRTD offering.[1009] However, for the reasons explained in recitals (910)-(911) above, a single exchange can be important to a data vendor's offering when it is a regulated venue and it is critical to end-customers for regulatory compliance purposes. LSEG internally recognizes itself as [analysis of LSEG's market position].[1010]

(912) *Third*, the Non-Horizontal Merger Guidelines indicate that an input can be important when it represents a significant source of product differentiation for the downstream product.[1011] Contrary to the Notifying Party's claims, exclusive access to data of a specific venue can also be a significant source of differentiation for CRTD products. End-customer JP Morgan states: "*Bloomberg has their own content that is not available elsewhere. If that data is required by an application it must use BPipe* [Bloomberg's CRTD]. *Refinitiv also has unique content, e.g., Tradeweb and Reuters FX. If that data is required by an application it must use Elektron*".[1012] In Refinitiv internal documents, exclusive content (e.g., Tradeweb's venue data) is [Refinitiv's analysis of exclusive content].[1013] As described in more detail in Section B.2.2 below, exclusive distribution rights of Tradeweb's data in particular [Refinitiv's analysis of exclusive content]. The existing competitive disadvantage of rivals from the lack of this content would be further exacerbated with the exclusion of a key venue like LSE.

A.2. LSE venue data is an important input for CRTDs

(913) LSE venue data is an important input for the downstream market of CRTDs. Contrary to the claims of the Notifying Party, the fact that LSE venue data fees represent only a low percentage of the total market size of CRTDs does not change this. An input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product.[1014] This is the case for the vertical link between LSE venue data and CRTDs for the reasons detailed below.

(914) The market investigation confirms that LSE venue data is an important input for the downstream market of CRTDs from the perspective of the end-customers and data vendors alike. *First*, LSE is an important input for the operations of these end-customers (at least in the EEA). *Second*, it is difficult for end-customers to switch

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1009 Response to the SO, Information Services, paragraph 12.

1010 [internal document, June 2019, Doc ID 4695-91357, page 3; [internal document], November 2018, Doc ID 4695-84720, page 3.

1011 Non-Horizontal Merger Guidelines, paragraph 34.

1012 Question 15.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1013 Form CO, Information Services, Annex 287 – Document 20, page 5.

1014 This is consistently confirmed in the General Court's case law (Judgment of 14 December 2005, *General Electric Company v Commission*, Case T-210/01, ECLI:EU:T:2005:456, paragraphs 216, 217, 287-290) and the decisional practice of the Commission (Commission decision of 1 October 2018 in Case M.8985 – *Boeing/KLX*, paragraph 67; Commission decision of 17 November 2010 in Case M.5675 – *Syngenta/Monsanto Sunflower Seed Business*, paragraphs 347 and 350; Commission decision of 14 May 2008 in Case M.4854 – *TomTom/Teleatlas*, paragraph 198; and Commission decision of 24 April 2007 in Case M.4569 – *GE/Abbott*, paragraphs 30 and 36).

away from LSE venue data as there are no directly substitutable datasets and in any event, the procedure of switching would be timely and costly. *Third*, the availability of LSE venue data is one of the important parameters that end-customers take into account when selecting CRTDs. *Fourth*, the importance of the LSE venue data for end-customers confirms also that it is an important input for data vendors.

LSE is an important input for the end-customer's operations

(915) In the market investigation, 78% of informative end-customers state that they license real-time LSE venue data, of which 55% license real-time non-display data (i.e., data that can be delivered through a CRTD).[1015] 52% of informative end-customers identify LSE as a venue whose data is "must-have" for their company's operations in the EEA regarding equities.[1016] End-customer NatWest states: "[h]*aving access to the LSE venue data is of strategic importance to us so any technical or commercial changes would have a detrimental effect on the bank"*.[1017]

(916) Data vendor respondents confirm the views that end-customers took during the market investigation. All informative data vendors identify LSE among the top three venues in the EEA, whose data is licensed by most end-customers regarding equities.[1018] 3 out of 4 of data vendors providing informative responses in the market investigation identified LSE as the number one venue in the EEA, whose data is licensed by most end-customers regarding equities.[1019] Data vendor Bloomberg notes: "*LSEG owns and licenses... unregulated exchange and proprietary data from LSEG... Although unregulated, the data are "must have" given their commercial importance, reputation, and usage by customers*".[1020]

Switching away from LSE venue data is difficult for end-customers

(917) According to the Non-Horizontal Merger Guidelines, an input may be important when the cost of switching to alternative inputs is relatively high.[1021] This is exactly the case with LSE venue data.

(918) First of all, switching away from LSE venue data is difficult because there are no direct substitutes for these data. As explained in more detail in Section 3.11.1 above, venue data from different venues are not substitutable with and do not compete in the same market as LSE venue data.

(919) But even if an end-customer were to consider switching away from LSE venue data, this would be highly complicated. ADVFN, an end-customer, notes that "*the technical costs are very high*".[1022] BBVA, another end-customer, adds that "*Due to the nature of market data this can involve the collection of data over an extended period (weeks)*".[1023]

LSE venue data is an important parameter for end-customers selecting CRTDs

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1015 Question 102, Questionnaire 9 to information services end-customers, Doc ID 6480.
1016 Question 108, Questionnaire 9 to information services end-customers, Doc ID 6480.
1017 Question 20.4, Questionnaire 19 to information services end-customers, Doc ID 6469.
1018 Question 168, Questionnaire 8 to data vendors, Doc ID 6479.
1019 Question 168, Questionnaire 8 to data vendors, Doc ID 6479.
1020 Bloomberg's Response to European Commission Questions, 17 March 2020, paragraph 4.2, Doc ID 6075-2.
1021 Non-Horizontal Merger Guidelines, [2008] C265/5, paragraph 34.
1022 Question 106.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1023 Question 106.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

(920) In the market investigation, 68% of informative end-customers indicate that access to LSEG venue data is is important, if not essential or the most important parameter when selecting a CRTD.[1024] Indeed, 32% of informative end-customers submit that access to LSEG venue data is "*essential*" in that they would "*not consider any CRTD provider who do not provide access to LSEG venue data*".[1025] 13% consider it "*one of the most important elements*" that they take into consideration, and 24% say it "*is an important element for us, but it is not among the most important elements*". Only 32% selected "*it is not an important element for us*." End-customer FinecoBank states: "[w]*e do not envisage any European real-time datafeeds provider not to include LSEG group venue data (unless there is a reason to do so).*"[1026]

(921) Moreover, a significant percentage of CRTD end-customers license LSEG venue data and are able to access them through their datafeed. [a very high percentage] of Refinitiv's Elektron Real Time customers in the EEA are licensed to access LSEG real-time venue data in the EEA.[1027]

(922) The Notifying Party highlights that the majority of end-customers would not switch away from their current CRTD provider even if it did not offer LSE venue data (at all or at the required level of quality/latency).[1028] However, as shown in Table 76 below, 76% of the informative end-customers submit that in case LSE venue data was no longer available through their CRTD, they would take action to continue having access to LSE venue data. Indeed, they would switch to Refinitiv (8%) or they would add Refinitiv CRTDs in their organisation (68%). 67% would do the same if access to LSE venue data through their CRTD became slower or of lower quality.

Table 76

Upstream Market	Downstream Market	Type of Input Foreclosure	Percentage of End-customers...[1029]		
			... switching to Refinitiv CRTDs	... adding Refinitiv CRTDs	... only keeping their existing CRTD provider[1030]
LSE Venue Data	CRTDs	Total[1031]	8%	68%	24%
		Partial[1032]	17%	50%	33%

Source: Question 24, Questionnaire 19 to information services end-customers, Doc ID 6469.

(923) Table 76 above shows that the majority of end-customers would switch to or add Refinitiv CRTDs driven by the need to continue licensing LSE venue data. The fact

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1024 In its Response to the SO, the Notifying Party submits that it does not follow that, if LSE venue data were important for end-customers, they are an important input for CRTD providers. However, in the market investigation, data vendors indicate that they redistribute the datasets that are most likely to be in demand by end-customers (Question 43, Questionnaire 18 to data vendors, Doc ID 6468). In any event, the Commission assessed separately the importance of LSE venue data for data vendors in recitals (926)ff. below.

1025 Question 20.2, Questionnaire 19 to information services end-customers, Doc ID 6469.

1026 Question 20.2, Questionnaire 19 to information services end-customers, Doc ID 6469.

1027 Form CO, paragraph D.550.

1028 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 11 and Response to the SO, Information Services, paragraph 17.

1029 Estimated based on informative end-customers (i.e., excluding all respondents who selected "Other", unless their reply could not be categorized to one or more of the options provided).

1030 Without adding any other product, thus accepting slower/lower-quality access to the LSE venue data.

1031 Question 19.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1032 Question 19.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

that the end-customer will keep its existing CRTD (e.g., because it is difficult to switch altogether) does not mean that the combined entity would not have the ability to foreclose competitors.

(924) Foreclosure exists even if the foreclosed rivals are not forced to exit the market. It is sufficient that the rivals are disadvantaged and consequently obliged to compete less effectively.[1033] With no or degraded access to LSE (real-time) venue data, rival data vendors would not be able to serve end-customers in the same way as they did before the transaction. As a result, their CRTD would be of lesser quality, competing less effectively in terms of "data coverage", which is the most valued parameter of CRTD selection for end-customers.[1034] The fact that the combined entity can force rivals to compete less effectively in the downstream market shows that it has the ability to foreclose.

(925) The Notifying Party argues that real-time venue data from LSEG venues only accounted for [a very small percentage] of all real-time data feeds distributed through Elektron Real Time in 2018.[1035] However, contrary to the Notifying Party's claims, it is incorrect to focus exclusively on the number of CRTD users actively accessing LSEG venue data today. Rather, it is the possibility to license the data (namely, the availability to access and use whenever required or convenient) that end-customers value when selecting a CRTD product. The results of the market investigation confirm this. Data vendors FactSet, Morningstar, and IRESS take the view that "*the possibility to access a venue dataset is important for* [end-]*customers of CRTDs even if they do not use this venue data set today*".[1036] 60% of informative data vendor respondents submit that end-customers would not purchase a CRTD by a rival of Refinitiv if they knew that there is no possibility to access LSE venue data through this CRTD.[1037] Data vendor IRESS explains: "[i]*t's very important for a provider to be global and to provide a global coverage including the LSEG, if tomorrow our clients want to receive the LSEG data and we can't carry it, customers will use another global data provider*".[1038] Data vendor Morningstar agrees recalling that "*strategies of customers are changing on an increasing basis*", stressing the importance for data vendors to have access to from a broad range of venues to be able to satisfy end-customers needs.[1039]

LSE venue data is an important parameter for data vendors offering CRTDs

(926) All data vendor respondents identify LSE as the number one venue in the EEA, whose data are carried by most data vendors in equities.[1040] The Commission asked the Notifying Party to specify which data vendors carry LSE venue data on their CRTDs. LSE's venue data is carried by Refinitiv, Bloomberg, Activ, SIX, and at least 11 other providers of CRTDs.[1041] The Notifying Party provided the information

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1033 Non-Horizontal Merger Guidelines, paragraph 29.
1034 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6479.
1035 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 11.
1036 Question 48, Questionnaire 18 to data vendors, Doc ID 6468. In the market investigation, only one data vendor, DTN, replies to this question that the possibility to access a venue dataset is not important for customers of CRTDs when they do not use this venue data set.
1037 Question 49, Questionnaire 18 to data vendors, Doc ID 6468.
1038 Question 48, Questionnaire 18 to data vendors, Doc ID 6468.
1039 Question 48, Questionnaire 18 to data vendors, Doc ID 6468.
1040 Question 170, Questionnaire 8 to data vendors, Doc ID 6479.
1041 Form CO, Information Services, Annex 292.

for data vendors representing 81-84% of the worldwide market.[1042] Of the part of the worldwide market for which the Commission had information, a very large proportion (86-87%) currently carry LSE venue data.[1043]

(927) In an internal email exchange on 7 January 2020, preparing the answer to a request for information ("RFI") by the Commission, Refinitiv's [Refinitiv senior employee] stated: [discussion on the coverage of LSE].[1044]

(928) In the Commission's market investigation, data vendors highlighted that LSE venue data is an important input for their CRTD offering. The vast majority of informative data vendors agree that their CRTD sales would decrease over time if LSE venue data were no longer available through their CRTD in the EEA.[1045] For example:

(a) According to data vendor McKay, "[t]*he LSE's market data is essential to build a fulsome offer for equity datafeeds in the EEA and compete in consolidated real-time datafeeds. This is particularly the case for on-trading floor customers. When these customers are trading on behalf of investors, they are bound by the best execution principle under the MiFID II rules. Therefore, they are required to have real-time market data from all trading venues in the EEA, including LSE. McKay's view is that the majority of revenues made by datafeeds offered to on-trading floor customers comes from customers bound by the best execution obligation*."[1046]

(b) According to data vendor FactSet, "[f]*ailure for a provider to have the capability of providing critical content sets, like the LSEG venue data, severely reduces the provider's competitiveness in the CRTD market... Without access to these vital, natural monopolistic datasets, FactSet would no longer be able to offer a competitive solution to address basic customer requirements*."[1047]

(c) According to data vendor IRESS, "*...LSE [venue data] are an essential part of our... datafeed offering...*".[1048]

(d) According to data vendor Morningstar, "*LSEG data is fundamental to the venue data that Morningstar distributes to its customers and [an] increase in pricing would impact the ability to effectively compete in the market*".[1049]

(929) In the response to the decision pursuant to Article 6(1)(c), the Notifying Party submits that LSEG venue data represent a diminutive proportion of the cost of CRTD today. The Notifying Party estimates that (i) LSEG venue data redistribution fees represent less than [a very small percentage] of the total market size for CRTDs[1050]

1042 See Form CO, Information Services, Annex 201 and Annex 292. The Notifying Party was not able to give a detailed breakdown of the remaining part of the market.

1043 In terms of CRTD revenue (see Form CO, Information Services, Annexes 201 and 292); range due to noise in the revenue estimates and lack of available precise share estimates.

1044 [internal document], Doc ID 6186-6192.

1045 Question 50, Questionnaire 18 to data vendors, Doc ID 6468. In the Response to the SO, the Notifying Party noted that the several data vendors did not respond to this question (Response to the SO, Information Services, paragraphs 21-22). However, the Commission cannot assume that all the end-customers who did not respond to this question lacked any concern about the Transaction. As a result, it based its assessment on the replies of informative data vendors.

1046 Minutes of call with McKay, 6 August 2020, paragraph 24, Doc ID 6225.

1047 Question 50.2, Questionnaire 18 to data vendors, Doc ID 6468. See in the same vein, FactSet's reply to Question 170.1, Questionnaire 8 to data vendors, Doc ID 6479.

1048 Question 171, Questionnaire 8 to data vendors, Doc ID 6479.

1049 Question 69.1, Questionnaire 18 to data vendors, Doc ID 6468.

1050 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 1.

and (ii) the end-customer licence fees for LSEG venue data represent less than [a very small percentage] of the total market size for CRTDs.[1051]

(930) However, an input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product.[1052] For all the reasons explained in this Section, the Commission considers that the fact that LSE venue data redistribution fees and end-customer licence fees represent a small input cost is not indicative of the importance that this data has in the CRTD market.[1053]

(931) In the response to the decision pursuant to Article 6(1)(c), the Notifying Party also argues that "*the percentage of data vendors carrying a dataset is not a meaningful metric for measuring the 'dependency of* [downstream] *competitors*"'.[1054] In more detail, according to the Notifying Party:

(a) Refinitiv and other data vendors carry data from thousands of sources and no one source is critical to the competitiveness of their offering.

(b) The percentage of data vendors carrying a dataset was used in *Thomson Corporation/Reuters Group*[1055] to assess the dependency of downstream competitors on the input. In that case, the product examined was Thomson's and Reuter's aftermarket research offering which is an input for desktop services. Aftermarket research datasets are themselves based on the input of hundreds of brokers. According to the Notifying Party the appropriate comparison would have been between LSE venue data and the input of each of these brokers – not the compiled aftermarket research offering. As such, according to the Notifying Party, this precedent is not relevant as the cases are not comparable.

1051 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 2.

1052 This is consistently confirmed in the General Court's case law (Judgment of 14 December 2005, *General Electric Company v Commission*, Case T-210/01, ECLI:EU:T:2005:456, paragraphs 216, 217, 287-290) and the decisional practice of the Commission (Commission decision of 1 October 2018 in Case M.8985 – *Boeing/KLX*, paragraph 67; Commission decision of 17 November 2010 in Case M.5675 – *Syngenta/Monsanto Sunflower Seed Business*, paragraphs 347 and 350; Commission decision of 14 May 2008 in Case M.4854 -- *TomTom/Teleatlas*, paragraph 198; and Commission decision of 24 April 2007 in Case M.4569 – *GE/Abbott*, paragraphs 30 and 36).

1053 The Commission notes that although LSE venue data is an important input for CRTDs, LSE venue data licence fees represent only a limited share of the total CRTD price. As such, the Commission considers that the combined entity would not have the ability to engage in price-based partial foreclosure in the market for CRTDs, by increasing the price of LSE venue data to rivals. Assuming that LSE venue data redistribution fees represent [a very small percentage] of the cost of a CRTD product, a price increase of [a very high percentage] would be needed to increase downstream prices by 10% (even if fully passed through). In the same vein, assuming that LSE venue data end-customer licence fees represent [a very small percentage] of the cost of a CRTD product, a price increase of [a very high percentage] would be needed to increase downstream prices by 10% (even if fully passed through). However, price increases of this magnitude would no longer qualify as price-based partial foreclosure but rather amount to a total input foreclosure strategy (as the Notifying Party acknowledged in Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, page 6). The Commission also notes that it is unlikely that the combined entity would have the incentive to engage in a price-based partial foreclosure in CRTDs, by restricting access to LSE venue data. In the market investigation, the majority of informative end-customer respondents indicates that they would keep their existing CRTD provider, if the combined entity increased the price of LSE venue data. See Question 24.2, Questionnaire 19 to information services end-customers, Doc ID 6469. The remainder of this Section thus focuses on total input foreclosure and technical partial foreclosure (but not price-based partial foreclosure).

1054 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 12.

1055 Commission decision of 19 February 2008, Case M.4726 - *Thomson/Reuters*, paragraph 216.

(932) The Notifying Party's claims do not change the Commission's conclusion that LSE venue data are an important input for CRTDs from the perspective of data vendors:

(a) Refinitiv internal documents cited in recital 243(912) indicate that exclusive access to sources is [discussion of commercial strategy]. In particular, access to data from a *specific* venue [discussion of commercial strategy].

(b) The vertical link assessed in paragraphs 215ff of *Thomson/Reuters* concerns aftermarket research offering (upstream) and desktop services (downstream). To assess the ability of the combined entity to foreclose, the Commission assessed the "*share of competitors' desktops...* [the downstream products] *which carry Thomson and Reuters' research offering* [the upstream input]".[1056] This is exactly what the Commission did also in this case, estimating what percentage of the downstream products (e.g., here, CRTDs) include the upstream input (LSE real-time venue data).[1057] On this basis, the Commission finds that the majority of CRTD players are carrying LSE venue data today and that LSE venue data is an important input for CRTDs (irrespective of the number of end-customers that use it on a consistent basis in a given period of time).

(933) Finally, in its market investigation, the Commission has not identified effective and timely counter-strategies that CRTD providers could deploy in case of input foreclosure by LSEG concerning LSE venue data. For the reasons explained above, there is no possibility for CRTD providers to be less reliant on LSE venue data (especially when these are important for end-customers). Sponsoring entry in the upstream market is also not possible, given that LSEG has a natural monopoly on the provision of LSE venue data for the reasons explained in Section A.3 below.

A.3. LSEG has a significant degree of market power in LSE venue data

(934) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined firm must have a significant degree of market power in the upstream market.[1058] The Commission takes the view that LSEG has such a degree of power in the market for LSE venue data. LSEG has a "natural" monopoly in this market, which is also evidenced by the company's behaviour vis-a-vis its end-customers in recent years.

A.3.1. LSEG has a natural monopoly in the market of LSE venue data

(935) LSEG has a monopoly over the LSE venue data as it is the only entity that can offer data generated from the trading activity in this venue. Datasets from other venues are not substitutable. The Notifying Party did not contest this conclusion in its response to the decision pursuant to Article 6(1)(c) or in the response to the SO.[1059] It simply stated: "[t]*hat LSEG has a "natural" monopoly over its venue data is insufficient to establish that such data is must-have for data vendors*".[1060] The Commission agrees

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1056 Commission decision of 19 February 2008, Case M.4726 - *Thomson/Reuters*, paragraph 216.

1057 The fact that the aftermarket research offering is compiled on the basis of broker reports is irrelevant. If anything, this is relevant to a different vertical link between the production of individual broker reports (upstream) and the market for aftermarket research products (downstream).

1058 Non-Horizontal Merger Guidelines, paragraph 35.

1059 However, in the Response to the SO, the Notifying Party argues that it is contradictory for the Commission to argue that (i) LSEG has a monopoly over LSE venue data and (ii) that LSEG's pre-merger pricing in LSE venue data does not reflect that of a monopolist (see Response to the SO, paragraph 23). The Commission addresses this argument in recitals (1018)ff.

1060 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 14.

with this statement and has shown above why it considers that LSE venue data does constitute an important input in the downstream market for CRTDs.

(936) The market investigation confirmed that there are no alternative venue datasets that would be substitutable with LSE venue data. 72% of informative end-customers reply that there are no "*alternative venue data in the EEA that [could] replace the venue data that* [LSE] *offer*[s]".[1061] The vast majority of data vendor respondents confirm this finding: 86% of them state that there are no "*alternative venue data that customers in the EEA use or could use to replace the venue data that* [LSE] *offer*[s]".[1062] For example, data vendor FactSet submits: "[W]*ithout access to these vital, natural monopoly datasets (e.g., LSE venue data), FactSet would no longer be able to offer a competitive solution to address basic customer requirements*".[1063] Another data vendor, IRESS, confirms: "[t]*he LSEG is a top 10 global exchange and their venue data is very important for many of our clients. If we'll be unable to provide this data, our clients will switch to an other provider for LSE data…*".[1064]

A.3.2. Licensing behaviour regarding LSE venue data reflects LSEG's market power

(937) As regards LSE venue data licensing vis-a-vis end-customers and data vendors, LSEG's behaviour confirms that the Notifying Party enjoys significant power in the market for LSE venue data.

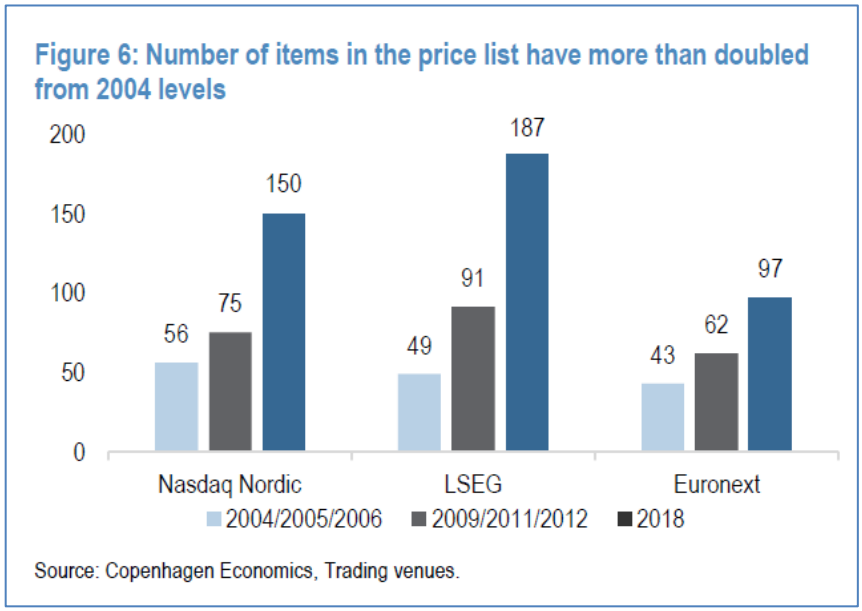
(938) In its most recent Review Report, ESMA concluded (following a public consultation) that overall venue data prices have increased in recent years, in particular for data for which there is high demand.[1065] Echoing this, 90% of informative end-customers in the Commission's market investigation confirm that in the past 5 years, their company faced price increases from LSEG concerning the venue data they purchased in the EEA.[1066] 48% of the end-customer respondents indicate that they consider the price increases for LSEG's venue data to be higher than most other venues.[1067] As end-customer Credit Agricole puts it, "*there is no competition across [t]rading venues on market data services. Actually, we already observe permanent increase of 5 to 10% annually on market data licenses from trading venues including the Parties...*".[1068] End-customer Danske Bank states: "[t]*he LSEG price increase mechanisms are in many ways setting the new and next level for other venues globally*".[1069]

(939) Price increases do not only come from a rise in the existing fees of venue data, but also from a complexification of data licensing.[1070] In a 2020 report, JP Morgan Stanley explains that price hikes in venue data also "*come from the new* [types of] *fees which reflect a rising complexity of data and data fee schedules*".[1071] Figure 11

1061 Question 105, Questionnaire 9 to information services end-customers, Doc ID 6480.
1062 Question 164, Questionnaire 8 to data vendors, Doc ID 6479.
1063 Question 64.1, Questionnaire 8 to data vendors, Doc ID 6479.
1064 Question 64.1, Questionnaire 8 to data vendors, Doc ID 6479.
1065 ESMA, MiFID II/MIFIR Review Report No. 1, page 22.
1066 Question 112, Questionnaire 9 to information services end-customers, Doc ID 6480.
1067 Question 112.3, Questionnaire 9 to information services end-customers, Doc ID 6480.
1068 Question 106.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1069 Question 112.3.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1070 End-customer Danske Bank states that "*the prices of [LSEG's] individual services have not... increased significantly. However, the number and use specific licenses required has increased*". See Question 112.3.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1071 JP Morgan, "European Exchanges", March 2020, page 4, Doc ID 6314.

below provided in the same report shows the significant increase in individual fee items in LSEG's pricing list, which have the overall effect of price increases.[1072]

Figure 11



Source: JP Morgan, "European Exchanges", March 2020, page 5, Doc ID 6314.

A.4. LSEG has the ability to engage in partial input foreclosure of LSE venue data based on technical degradation

(940) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argues that it would not be able to technically degrade or delay the access of rival desktop providers in LSE venue data "*without making significant infrastructural changes*".[1073] This is the case because all customers today receive LSE venue data through the same access point; at the same rate; and the data contains the same date stamp for all recipients.

(941) However, when asked further about these infrastructural changes, the Notifying Party submits that it would be able to create an individual distribution channel to disseminate the LSE venue data separately to Refinitiv. LSEG estimates that this could be achieved for a cost of ~GBP […] in a project that would take [time period] to complete.[1074]

(942) Against this background, the Commission considers that the combined entity does have the ability to engage in partial input foreclosure regarding LSE venue data. The current infrastructure setting of LSEG may well disseminate LSE venue data information to everyone at the same time, but this can be changed within a short period of time and without incurring significant costs. An infrastructural change that takes [time period] is not burdensome for LSEG to complete. For example, just for its integration planning regarding the Transaction, LSEG had budgeted [time

1072 JP Morgan, "European Exchanges", March 2020, page 5, Doc ID 6314.
1073 Response to the decision pursuant to Article 6(1)(c), paragraph 35.
1074 RFI 29 reply, question 9. The Notifying Party adds that this change would have "*huge non-technical costs*", in particular reputational damage. This element, which is more relevant to the incentives of the combined entity is discussed in more detail in recitals (948)ff below.

period].[1075] LSEG also estimates that the integration cost involved in the Transaction would be USD […] for year 2020 only.[1076]

(943) Contrary to the Notifying Party's claims, it is irrelevant that today LSEG provides to all the end-customers an advance warning for periodical infrastructure updates and that it invites them in "dress rehearsals". Post-Transaction, the combined entity would have the ability to foreclose competitors in the downstream market for CRTDs by discontinuing its advance warning policy or offering less detailed instructions regarding the implementation of infrastructural changes. In the same vein, the combined entity would have the ability to disinvite its rival data vendors from "dress rehearsals"; only conduct them with a delay; or even discontinue them altogether.

(944) In the response to the SO, the Notifying Party argues that the Commission did not provide sufficient evidence for its finding that LSEG would have the ability to engage in partial input foreclosure in CRTDs. *First*, the Notifying Party claims that in this respect, the Commission only considered Bloomberg's allegations which concern desktop services. *Second*, the Notifying Party submits that the Commission did not ask market investigation respondents whether degrading access to LSE venue data was technically possible or not.[1077]

(945) The Notifying Party's claims do not change the Commission's conclusion that the combined entity would have the ability to engage in partial input foreclosure through technology degradation in LSE venue data. In the market investigation, data vendor Bloomberg claims that the combined entity could follow various non-price strategies that could degrade the access to LSEG venue data for rival data vendors. These include providing Refinitiv with preferential access to the matching engine; more timely updates; or additional instructions.[1078] Bloomberg's examples all focus on non-price strategies that could foreclose rivals in the downstream market for desktop services. However, the Commission takes the view that the same strategies (e.g., delaying updates or providing additional instructions) could also be used to foreclose rivals in the downstream market for CRTDs. These practices relate to the upstream market of LSE venue data and the ability of the combined entity to restrict access to this input. As such, they can be implemented to foreclose rivals in different downstream markets, including CRTDs and desktop services.

(946) Moreover, the Commission notes that the Notifying Party confirms that it would have the ability to engage in partial input foreclosure through technology degradation, when it submitted that it would have the ability to create an individual distribution channel to disseminate the LSE venue data separately to Refinitiv CRTDs or desktop services.[1079]

(947) Finally, none of the data vendor respondents or the end-customer respondents take the view that partial foreclosure through quality/latency degradation would be technically impossible.[1080]

1075 September 2019-September 2020. See "Bootcamp presentation vFINAL", Doc ID 4188-655, page 12

1076 See [internal document], Doc ID 4189-15786 (total integration costs amount to ~[…]).

1077 Response to the SO, Information Services, paragraphs 24-25.

1078 Bloomberg, "Consolidated Data Access Paper", 17 March 2020, paragraph 6.4, Doc ID 6075-2.

1079 RFI 29 reply, question 9. See recital (941) above.

1080 Question 64.2, Questionnaire 8 to data vendors, Doc ID 6479. In the Response to the SO, the Notifying Party states that the formulation of this question did not give to data vendors the possibility to explain whether degrading access was technically possible or not (Response to the SO, Information Services, paragraphs 25(b)-(c)). Instead, the question addressed a hypothetical scenario where the combined

B. Incentive to engage in total/partial input foreclosure

(948) The Commission considers that the combined entity would have the incentive to engage in a total/partial input foreclosure strategy against CRTD rivals by restricting access to LSE real-time venue data. Such a strategy would allow the combined entity to strengthen its dominant position in the market for CRTDs, where it is already the leading player and commands a [40-50]% share worldwide.

(949) The remainder of this Section is structured as follows. Section B.1 explains the reasons why Refinitiv is dominant in the downstream markets for CRTDs. This suggests that the combined entity would have the incentive to engage in input foreclosure in order to strengthen this dominance. Section B.2 discusses further the combined entity's incentives to engage in total input foreclosure and Section B.3 focuses on the incentives of the combined entity regarding a possible partial input foreclosure strategy involving LSE venue data (upstream) and CRTDs (downstream). Finally, Section B.4 turns to two additional arguments of the Notifying Party regarding the combined entity's incentives to engage in total/partial foreclosure: one related to role of regulatory scrutiny and one related to countervailing buyer power.

B.1. Refinitiv is dominant in the downstream market for CRTDs

(950) According to the Non-Horizontal Merger Guidelines, the combined entity has higher incentives to engage in total/partial foreclosure the higher its market share is in the downstream market. The greater the market share of the combined entity, the greater the base of sales on which to enjoy increased margins, following a total/partial foreclosure strategy.[1081]

(951) In its decision in *Reuters Instrument Codes*, the Commission found that Thomson Reuters (the predecessor of Refinitiv) "*appears to be dominant in the worldwide market for consolidated real-time datafeeds, having regard to market shares, barriers to entry and expansion and the lack of countervailing buyer*".[1082]

(952) In the Response to the SO, the Notifying Party recalls that the Commission's decision in *Reuters Instrument Codes* was a commitments decision under Article 9 of Regulation 1/2003[1083] and thus, the Commission did not make an actual finding of dominance regarding Refinitiv in the market for CRTDs.[1084] The Notifying Party also cites the Commission's decision in *Blackston/Thomson Reuters F&R Business*,[1085] which notes that Refinitiv faces competition in the market for CRTDs.[1086]

(953) However, in the present case, the Commission conducted a new market investigation regarding the position of Refinitiv in the market for CRTDs and found that Refinitiv is dominant based on a series of reasons which are explained in detail below, including (i) Refinitiv's share of >40% in this market; (ii) the differences between

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entity had already supposedly degraded the quality of access to upstream data inputs. The Commission notes that the question was open ended and respondents were free to indicate that degrading access was not technically possible.

1081 Non-Horizontal Merger Guidelines, paragraph 43.

1082 See Commission's decision of 20 December 2012, Case AT.39654 - *Reuters Instrument Codes*, paragraph 33.

1083 Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 4.1.2003, p. 1–25.

1084 Response to the SO, Information Services, paragraph 28.

1085 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*.

1086 Response to the SO, Information Services, paragraph 28.

Refinitiv and its competitors and the pricing power that Refinitiv retains despite the aggressive pricing of its competitors; (iii) the high end-customer retention rate of Refinitiv; (iv) how difficult it is for end-customers to switch away from Refinitiv; and (v) the fact that barriers to entry in CRTDs are very high. Each of these elements is discussed in turn below.

Refinitiv held a share of >40% worldwide in 2018

(954) Market shares provide a useful first indication for the Commission of the market structure and of the relative importance of the various undertakings active in the market.[1087]

(955) Based on the information submitted by the Notifying Party, Refinitiv held a share of approximately [40-50]% worldwide in 2019 and was the largest player in the market in terms of revenues. Bloomberg was the second largest player commanding a share of [20-30]%, followed by ICE with [5-10]%. All other players (e.g., Active, SIX, Vela) held shares of less than 5% each.[1088]

(956) A third party report prepared by Greenwich Associates ([…]) estimates even higher shares for Refinitiv and even lower shares for its competitors.[1089] Based on this report, in 2017, Refinitiv had a share of [50-60]% in the worldwide market for CRTDs while Bloomberg held only [10-20]% and ICE held [5-10]%.[1090] Figure 12 below illustrates this.

Figure 12

[internal document]

Source: RFI 16 reply, Annex 2.1, […].

(957) In the Response to the SO, the Notifying Party submits that Refinitiv is not dominant in the market for CRTDs as is "*apparent from Refinitiv's share of supply that [40-50]% and the numerous competitors with significant shares it is facing*".[1091]

(958) Contrary to the Notifying Party's claim, the Commission notes that EU Courts found firms to be dominant with market shares of 40-45% (or even lower).[1092] To determine that Refinitiv is dominant in the market for CRTDs, the Commission took into account, in addition to its considerable share, several parameters which are discussed in the remainder of this Section.

Refinitiv's rivals and pricing power in the market for CRTDs

(959) Refinitiv internal documents confirm the company's leading position in the market for CRTDs (consistently since 2010). In an internal document dated June 2019,

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1087 Horizontal Merger Guidelines, paragraph 14.

1088 See Figure 5 above.

1089 E.g., [internal document], Doc ID 4991-15348, page 66; Form CO, Information Services, Annex 287 – Document 17, page 16 and 61; Form CO, Information Services, Annex 287 – Document 27, page 36.

1090 According to the Notifying Party, in 2017, Refinitiv's share in the worldwide market for CRTDs was [40-50]%; Bloomberg's share was [20-30]%; and ICE's share was [5-10]% (i.e., presenting no meaningful difference compared to the market shares in 2019). See RFI 29 reply, question 1, Table 14.

1091 Response to the SO, Information Services, paragraph 30.

1092 Judgment of 14 February 1978, United Brands Company and United Brands Continental BV v. Commission, C-27/76, ECLI:EU:C:1978:22, paragraph 108 or Judgment of 17 December 2003, British Airways plc v Commission of the European Communities, T-219/99, ECLI:EU:T:2003:343, paragraphs 189-225, upheld on appeal in Judgment of 15 March 2007, British Airways plc v Commission of the European Communities, C-95/04, ECLI:EU:C:2007:166.

Refinitiv recognised itself as the "[competitive analysis]" in CRTDs.[1093] In September 2018, Refinitiv's CEO and other executives participated in a road show to meet the company's key end-customers. Regarding CRTDs, Refinitiv executives stated: [competitive analysis regarding Refinitiv's real-time datafeed business].[1094]

(960) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party acknowledges that Refinitiv has "*an established presence in the market for CRTDs*" but it adds that it is facing increasing competitive constraints from rivals, e.g., Bloomberg and ICE.[1095] Refinitiv's internal documents confirm the emerging competitive pressure that Refinitiv is facing in the market for CRTDs.[1096] The Commission also acknowledged the existence of these competitors in *Blackstone/Thomson Reuters F&R Business*.[1097]

(961) However, the existence of competitors as such does not change the Commission's conclusion that Refinitiv is dominant in the market for CRTDs. As shown in Figure 5 above, in the worldwide market for CRTDs, Bloomberg had a share of [20-30]% in 2019 while ICE held a share of [5-10]%. A Refinitiv competitor comparison table (updated on September 2019) identified Refinitiv as [competitive analysis of Refinitiv] with [competitive analysis of Refinitiv] in CRTDs. Refinitiv acknowledged that it has [competitive analysis of Refinitiv].[1098]

(962) Regarding Bloomberg's position in CRTDs, the Commission identified several internal documents of Refinitiv which do not consider Bloomberg as a close competitive threat in the market for CRTDs. When meeting [customer] as part of the September 2018 roadshow, Refinitiv [senior employees] highlighted that Bloomberg's CRTD does not come with complementary data management infrastructure, like Refinitiv has: [competitive analysis of Refinitiv].[1099] As part of the same roadshow, when meeting end-customer [customer], Refinitiv [senior employees] stated: [competitive analysis of Refinitiv].[1100] An internal Refinitiv presentation concerning 2020 planning regarding CRTDs noted that the [competitive analysis of Refinitiv] and added that [competitive analysis of Refinitiv].[1101]

(963) In the response to the SO, the Notifying Party identified two email exchanges between Refinitiv employees which suggest that Refinitiv's [analysis of Refinitiv's and Bloomberg's offering] and that this is a [analysis of Refinitiv's and Bloomberg's offering].[1102]

(964) However, this argument does not change the Commission's conclusion that Bloomberg does not sufficiently constrain Refinitiv's behaviour in the market for CRTDs. The fact that Refinitiv's CRTD belongs to a broader management infrastructure makes it harder for end-customers to switch away from Refinitiv. Even

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1093 See Form CO, Information Services, Annex 287 – Document 27, page 33.

1094 [internal document], Doc ID 4991-42863.

1095 Response to the decision pursuant to Article 6(1)(c), paragraphs 62ff. See also email of 6 May 2019 from Refinitiv's [Refinitiv senior employee], who wrote: "[competitive analysis]*"* ([internal document], Doc ID 4257-22254).

1096 Response to the decision pursuant to Article 6(1)(c), paragraphs 63-64.

1097 Commission decision of 20 July 2018 in Case M.8837, *Blackstone/Thomson Reuters F&R Business*, paragraph 70.

1098 [internal document], Doc ID 4991-14710, page 10.

1099 [internal document], Doc ID 4991-42863, page 10.

1100 [internal document], Doc ID 4991-42863, page 37.

1101 [internal document], Doc ID 4991-10118, page 31 (emphasis added).

1102 Response to the SO, Information Services, paragraph 31(a) with references to [internal document], Doc ID 4151-24947 and [internal document], Doc ID 4794-27401.

if it were perceived as a negative competitive feature internally or by new end-customers, the existence of the broader data management infrastructure confirms rather than questions Refinitiv's dominance in CRTDs. During the 2018 roadshow mentioned above, Refinitiv executives stated when speaking to [customer name]: [competitive analysis of Bloomberg and Refinitiv's offering, including regarding switching and attraction of new customers].[1103] Similarly, a 2018 Oliver Wyman presentation prepared exclusively for Refinitiv states: [discussion of commercial strategy]."[1104]

(965) Regarding ICE's competitive position in CRTDs, an October 2018 Refinitiv internal presentation noted: [analysis regarding absence/existence of past switches of customers to ICE].[1105] In the response to the SO, the Notifying Party identified an email dated 22 May 2020, where a Refinitiv employee notes that [analysis regarding absence/existence of past switches of customers to ICE].[1106]

(966) However, Solactive is only one example of an end-customer switching and it took the decision to switch CRTD supplier under special circumstances. This does not allow the Commission to conclude that Refinitiv is constrained by ICE in the relevant market. According to Solactive, "[i]*n July 2018, Refinitiv terminated its agreement with Solactive concerning Elektron Real Time [its CRTD product] and sough to renegotiate the price... In this context, Refinitiv proposed to Solactive to license Elektron Real Time at a significantly higher price, where one of the fee components would have been a 20-30% share of Solactive's revenues with Client Customer Indices in addition to fees charged on a per instrument basis for Solactive indices, thereby multiplying proposed charges compared to the previous agreement... Solactive decided to switch away from Refinitiv and not agree to the substantial price increase for Elektron Real Time. Instead, Solactive started sourcing consolidated real-time data feeds from ICE. The process of switching from Refinitiv to ICE has been burdensome, timeconsuming and costly. Solactive estimates that it lasted approximately 18 months and required a full team of up to 25 programmers to work on the transition for at least 6 months. The overall cost for switching is estimated at approximately EUR 1.5 million. Most importantly, for 18 months, Solactive had faced disruptions in its index calculation activities and delays in the development of new indices. This is estimated to have caused a significant loss of EUR 2 million in foregone incremental recurring revenues.*"[1107]

(967) The Commission also notes that in several internal documents, Refinitiv [competitive analysis of Refinitiv].

(968) An internal Refinitiv presentation last updated in March 2019 states regarding the market for CRTDs: [discussion of commercial and pricing strategy].[1108] However, in the same presentation, Refinitiv states: [discussion of commercial and pricing strategy].[1109] A 2018 Oliver Wyman presentation prepared exclusively for Refinitiv

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1103 [internal document], Doc ID 4991-42863, page 10.

1104 [internal document], January 2018, Doc ID 4991-24183, page 14. In the same presentation, see also page 11 which reads: "[Refinitiv's enterprise platform] [discussion of commercial strategy]". The Commission notes that in the same presentation, page 14 states that: "[Refinitiv's enteprise platform is] [discussion of commercial strategy].

1105 [internal document], October 2018, Doc ID 4257-9572, page 9.

1106 Response to the SO, Information Services, paragraph 31(a).

1107 Minutes of call with Solactive, 12 June 2020, paragraphs 3-7, Doc ID 4141.

1108 [internal document], Doc ID 4794-46001, page 19.

1109 [internal document], Doc ID 4794-46001, page 19.

added: [discussion of commercial and pricing strategy].[1110] In the Response to the SO, the Notifying Party submits that [discussion of commercial and pricing strategy].[1111] However, the Notifying Party did not submit any evidence as to why this pricing premium is historic, [discussion of commercial and pricing strategy].[1112]

(969) Refinitiv is also in a position to increase its CRTD prices on a yearly basis, despite the behaviour of its competitors. In an internal presentation of December 2018, Refinitiv stated that it had set a [discussion of commercial and pricing strategy] for CRTDs in 2018 and added: [discussion of commercial and pricing strategy].[1113] In the response to the SO, the Notifying Party states that Refinitiv's annual price increases cannot be construed as evidence of pricing power in the market for CRTDs. Contrary to the Notifying Party's claim, the Commission notes that the ability of an undertaking to increase or maintain prices above the competitive level can be regarded as an indication of dominance in a relevant market.[1114]

Refinitiv has high end-customer retention rates in CRTDs

(970) In September 2018, Refinitiv's end-customer retention rate for the 12 months preceding was [a very high percentage] at worldwide level, as shown in Figure 13 below (extract from an internal presentation dated December 2018). In the same presentation, Refinitiv expected its global retention rate to increase to [a very high percentage] for the entire calendar year 2018 and to [a very high percentage] for calendar year 2019.[1115]

(971) This illustrates the dominant position of Refinitiv in CRTDs, as the vast majority of end-customers remains loyal to Refinitiv, despite the aggressively priced offering from competitors.

Figure 13

[…]

Source: [internal document], Doc ID 4991-15348, page 27.

(972) In the response to the SO, the Notifying Party submits that a retention rate of approximately [a very high percentage] means that every year Refinitiv loses approximately [a small percentage] of its customers, which is material. In any event, the Notifying Party underlines that retention rates are not in themselves an indicator of dominance.[1116]

(973) Contrary to the Notifying Party's claims, the retention rate of [a very high percentage] does not refer to the number of end-customers purchasing Refinitiv's CRTDs but rather to their spend on CRTDs. A ~[a very high percentage] retention rate in terms of existing CRTD end-customer revenues shows that only a small minority of end-customers switched or added competing products in 2018 or 2019, despite the aggressive discounting from rivals in this market. As regards the reference to retention rates to establish Refinitiv's dominance in CRTDs, the Commission notes that based on its decisional practice, end-customer loyalty to a

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1110 [internal document], January 2018, Doc ID 4991-24183, page 13.
1111 Response to the SO, Information Services, paragraph 31.
1112 [internal document], Doc ID 4794-46001, page 19.
1113 [internal document], Doc ID 4991-15348, page 19.
1114 See also Commission Decision of 18 July 1988 relating to a proceeding under Article 86 of the EEC Treaty (Case No IV/30.178 Napier Brown - British Sugar), OJ L284, 19.10.1988 p. 41, paragraph 55.
1115 [internal document], Doc ID 4991-15348, page 2.
1116 Response to the SO, paragraph 32.

product or supplier can be taken into account when assessing this supplier's market power in a relevant market.[1117]

Switching is very difficult in the market for CRTDs

(974) In an email of 24 February 2020, Refinitiv's [senior employee] stated regarding the offering of Refinitiv's competitors in the market for CRTDs: [discussions regarding willingness of customers to move away from Refinitiv].[1118] Refinitiv also received the same feedback when interviewing its own end-customers. For example, in an internal Refinitiv presentation updated in June 2020, end-customer [customer] is reported to have said: [customer's reasons for staying with Refinitiv].[1119]

(975) In the Commission's market investigation, the majority of end-customers submit that switching all or part of their requirements from one CRTD provider to another would involve significant time and costs.[1120] The vast majority of end-customers add that they have not switched all or part of their CRTD requirements in the past 3 years.[1121] The majority of data vendors share the view that switching CRTD providers is very complex.[1122] Third-party market reports confirm this. As Exane BNPP noted: [product and market analysis].[1123] Greenwich Associates estimated in 2018 that [a high percentage] of CRTD end-customers planned to keep their CRTD provider(s) unchanged.[1124]

Barriers to entry are high in the market for CRTDs

(976) Competition is a dynamic process and an assessment of the competitive constraints on an undertaking cannot be based solely on the existing market situation. The potential impact of entry by potential competitors, including the threat of such entry, is also relevant.

(977) However, barriers to entry are high in the market for CRTDs, as the Commission suggested in *Reuters Instrument Codes*. According to the Commission's decision in that case: "*The development of a consolidated datafeed requires a considerable amount of investment and resources as well as contractual relationships with exchanges and other data sources, to which* [Refinitiv] *sometimes has privileged access*".[1125] Moreover, the fact that Refinitiv enjoys high retention rates and switching between CRTD suppliers is difficult[1126] also results in high entry barriers.[1127]

(978) The Commission's market investigation confirms that the market for CRTDs is characterised by high barriers to entry. The majority of informative end-customer respondents indicate that they do not expect additional companies to start supplying

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1117 See Commission decision of 18 July 2018, Case AT.40099 – *Google Android*, paragraphs 533ff.
1118 [internal document], Doc ID 4257-34701.
1119 "Elektron Real Time – Customer Interviews", Doc ID 4257-33456, page 82.
1120 Questions 32 and 33, Questionnaire 9 to information services end-customers, Doc ID 6480.
1121 Question 31, Questionnaire 9 to information services end-customers, Doc ID 6480.
1122 Question 32, Questionnaire 8 to data vendors, Doc ID 6479.
1123 [internal document], Doc ID 4188-77255, page 31.
1124 See RFI 16 reply, Annex 2,1, Greenwich Associates Report, [internal document], 2018, page 5.
1125 See Commission's decision of 20 December 2012, Case AT.39654 - *Reuters Instrument Codes*, paragraphs 35.
1126 See recitals (970)-(975) above.
1127 Cf. also Commission decision of 14 March 2006, Case M.3868 – DONG/Elsam/Energi E2, paragraph 625.

CRTDs in the next 3 years in the EEA.[1128] The majority of data vendors agree with this view.[1129]

(979) In the response to the SO, the Notifying Party submits that this conclusion is *"contradicted by... McKay, who submitted... that it plans to enter the market for CRTDs*".[1130] However, one single example of a firm that considers launching a CRTD does not change the Commission's conclusion on high barriers to entry, which is based on all the evidence collected during the market investigation.

Market investigation results confirm Refinitiv's dominance in CRTDs

(980) The results of the Commission's market investigation confirm that Refinitiv is dominant in the market for CRTDs:

(a) According to end-customers, Refinitiv was the player most often identified as being among the top 5 competitors in CRTDs in the EEA.[1131] End-customer Unicredit S.p.A. states: "*Bloomberg's share on* [CRTDs] *has grown in the last years but still all major financial institutions rely at large on Refinitiv. All others are playing a mere niche role*".[1132] End-customer Credit Suisse notes: "*Refinitiv has historically been the dominant player for real-time datafeeds and continues to retain that position given the switching costs and lack of complete data coverage from other providers*".[1133] End-customer BNP Paribas confirms that Refinitiv is dominant in CRTDs.[1134]

(b) Data vendors share the views of end-customers. The vast majority of data vendors identified Refinitiv as the number one competitor in the market for CRTDs in the EEA.[1135] FactSet submits: "*Refinitiv has a dominant market position in the consolidated real-time datafeeds market. Refinitiv has been in this market space for 40 years, and has established itself deeply into customer's internal systems*".[1136]

(981) Against this background, the combined entity has the incentive to use a total/partial foreclosure strategy to strengthen its dominance in CRTDs and prevent erosion from recent competitive pressures. Eliminating LSE venue data from rival CRTDs would make it even more difficult for end-customers to leave the dominant Refinitiv solutions and switch to a competing product. The fact that competitive pressure is emerging in the market for CRTDs does not change the Commission's conclusion that Refinitiv is dominant in this market.

B.2. Total foreclosure

(982) This Section shows that the combined entity would have the incentive to engage in total foreclosure in CRTDs, regarding LSE real-time venue data. Such a strategy would be profitable based on the Commission's economic analysis and there are already examples of similar strategies in the market, by Refinitiv and Bloomberg.

1128 Question 30, Questionnaire 9 to information services end-customers, Doc ID 6480.
1129 Question 59, Questionnaire 8 to data vendors, Doc ID 6479.
1130 Response to the SO, Information Services, paragraph 34(c).
1131 Question 26, Questionnaire 9 to information services end-customers, Doc ID 6480.
1132 Question 27.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1133 Question 27.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1134 Question 58, Questionnaire 19 to information services end-customers, Doc ID 6469.
1135 Question 51, Questionnaire 8 to data vendors, Doc ID 6479.
1136 Question 58.2, Questionnaire 8 to data vendors, Doc ID 6479.

B.2.1. A total foreclosure strategy would be profitable

(983) The combined entity will have an incentive to engage in an input foreclosure strategy if doing so proves profitable. The strategy would be profitable for the combined entity if the profit lost in the upstream market (namely, the revenues from the licensing fees of LSE real-time venue data) were smaller than the profit gained in the downstream market from increased sales of Refinitiv CRTDs.

(984) The Commission's economic analysis shows that the combined entity will likely have the incentive to engage in total input foreclosure in the market for CRTDs by restricting access to LSE venue data.

Switching Rates

(985) To assess the possible effects of the Transaction on the relevant market for CRTDs the Commission (among other investigative steps) addressed questionnaires to end-customers who are using these services. These questionnaires were based on Article 11(2) of the Merger Regulation. In the context of these questionnaires, the Commission asked end-customers how they would react in case the combined entity discontinued access to LSE venue data through rival CRTDs or in case the combined entity degraded such access. Based on the replies of end-customers, the Commission estimated in case of total or partial technical foreclosure: (i) the percentage of end-customers who would switch to Refinitiv CRTDs; (ii) the percentage of end-customers who would add Refinitiv CRTDs; and (iii) the percentage of end-customers who would take no action and stick to their existing CRTD provider.

(986) The Commission uses these percentages ("the switching rates") in its calculations aiming to quantify the Notifying Party's incentives to pursue a total input foreclosure strategy in CRTDs, by restricting access to LSE venue data.

(987) The Commission sent questionnaires to information services end-customers twice during its market investigation: once during Phase I (in May 2020) and once during Phase II (in August 2020). The first questionnaire was sent to 1 004 addressees. The second questionnaire was sent to 978 addressees. The contact details of the addressees were provided by the Notifying Party and supplemented (where relevant) by the details in the Commission's files.[1137]

(988) The response rate to the May 2020 questionnaire was 10%. The response rate to the August 2020 questionnaire was 15%. The Commission considers the response rate as sufficient to draw conclusions about likely post-Transaction conduct of end-customers.

(989) In the Phase II questionnaire, focusing on a possible input foreclosure strategy concerning LSE venue data, the Commission offered end-customers four possible answers to the question inquiring about end-customer reactions to input foreclosure. The four options were: swithing away from the existing provider to Refinitiv; adding the Refinitiv's product to continue having access; foregoing access to LSE venue data and keeping their existing CRTD; and "Other". End-customers selecting "Other" were required to specify their behaviour in a subsequent question which read: "*If "other", please specify*".[1138]

1137 See discussion below and M.9564_IS_Annex_209_Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

1138 See Question 24, Questionnaire 19 to information services end-customers, Doc ID 6469.

(990) Further, the questionnaires included questions that aimed to inquire the sensitivity of the responses. For example, in the context of information services end-customers, the Commission asked respondents to clarify their motives for switching.[1139]

(991) In its response to the SO, the Notifying Party considers that the questionnaire sent during Phase II was "*poorly designed and potentially leading set questions*"[1140].

(992) However, the Commission rejects this claim. The Commission gave respondents the ability to select one of the predetermined three options or simply choose "Other" and indicate in free text their future reaction. When preparing the three predetermined options, the Commission took into account the information provided by the Notifying Party in the Form CO. Moreover, when preparing the Phase II questionnaire, the Commission took into account comments that the Notifying Party made in its response to the decision pursuant to Article 6(1)(c) decision.

(993) In its response to the SO, the Notifying Party also indicates that the end-customers taken into account for the calculation of the switching rates were a "*very small and highly unrepresentative sample of the Parties' customer base*"[1141].

(994) The Commission regards this claim as being baseless for the following reasons:

(a) For the calculation of the switching rates concerning the vertical overlap between LSE venue data (upstream) and CRTDs (downstream), the Commission took into account the answers of 47 informative respondents;[1142] and

(b) The Commission addressed to Phase II questionnaire to 978 end-customers. The contact details from these end-customers were provided by the Notifying Party following detailed exchanges with the Commission.[1143] Indeed, the Commission provided detailed guidance to the Notifying Party regarding the provision of contact details, requiring significant number of end-customer contact details per number (15 or 20).[1144] The Commission also requested the Notifying Party to provide contact details covering a wide range of end-customers, in terms of revenue, business segment (sector of activity of end-customer), and by customer tier (according to amount of sales to the Parties). The approach is considerably more granular than what the template of the Form CO suggests.[1145] The Commission has therefore used an appropriate and representative sample.

(995) The Notifying Party submits that the answers of several end-customers should not have been taken into account because some of them are not licensing LSE venue data while others already do so through Refinitiv CRTDs.[1146] Thus, their answers about a possible reaction to foreclosure of LSE venue data from rival CRTDs should not be

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1139 Question 37.4, Questionnaire 19 to information services end-customers, Doc ID 6469.

1140 Response to the SO, Information Services, Annex 1.

1141 Response to the SO, Information Services, Annex 1.

1142 Question 21.1, Questionnaire 19 to information services end-customers.

1143 Contact details first requested by the Commission in Question 5 of the Request for Information dated 16 October 2019 (RFI 1) and subsequently in Question 3 of the RFI dated 13 November 2019 (RFI 3), Question 10 of the RFI dated 27 November 2019 (RFI 4), Question 2 of the RFI dated 28 January 2020 (RFI 8), Questions 1 to 5 of the RFI dated 30 March 2020 (RFI 12), and Questions 13 and 21 to 27 of the RFI dated 27 April 2020 (RFI 13).

1144 M.9564 IS Annex 209 Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

1145 See Commission Regulation (EC) No 802/2004 of 7 April 2004 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, Annex I, Section 8.6.

1146 Response to the SO, Annex 1.

taken into account. The Notifying Party did not explain why these respondents would more likely be biased towards one option (nor which option that would be). In any event, to address the arguments of the Notifying Party, the Commission conducted a sensitivity analysis to its calculations, excluding end-customer respondents who did not license LSE real-time venue data in 2019 or end-customer respondents who already licensed LSE real-time venue data in 2019 through Refinitiv CRTDs. This sensitivity analysis confirmed that the combined entity would have the incentive to engage in input foreclosure in CRTDs, also on the basis of the hypothetically recalculated switching rates.[1147]

(996) The Notifying Party also submits that "*survey results based on hypothetical questions suffer from hypothetical bias*"[1148] and points to guidance from the CMA[1149]. The Commission acknowledges that in general survey design can affect the outcome of questionnaires and potentially can lead to a "*hypothetical bias*" (in particular for surveys addressed to consumer respondents). However, in the present case, the responses of the questionnaires came from leading management executives (or groups of executives) in relatively large and sophisticated financial firms. Therefore, the Commission finds that the replies to the questionnaires in the present case are unlikely to suffer from "hypothetical bias" taking into account the sophistication of the respondents. .

(997) For all these reasons, in its calculations in the remainder of this Section, the Commission relies on the switching rates from the market investigation, absent any other evidence on switching rates available in this case (including from the Notifying Party).

Profits potentially lost upstream

(998) For the calculation of the profits potentially lost upstream, the Commission proceeds as follows. *First*, the Commission takes the revenue from real-time venue data sales distributed through CRTD from LSE, which amounted to EUR […] in 2019 according to the Notifying Party. *Second*, in order to approximate incremental revenues, the Commission deducts from the revenues costs that are directly linked to the generation of these revenues, i.e. the variable costs that would not be incurred if the revenues were not generated. Variable costs mainly consist of direct costs of sales for the venue data business segment of LSE and may include some items classified as operating expenses. In its calculation, the Commission takes a conservative approach by deducting from upstream revenues only the cost of sales as variable costs. The lost profits are thus potentially overestimated (but not underestimated), compared to a scenario where a broader cost base would be deducted from the upstream revenues to determine the profits from real-time LSE venue data. The resulting profit margin stood at [a very high percentage] in 2019, amounting to EUR […] in absolute profits.[1150]

1147 See recitals (1011)ff.

1148 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2.

1149 Guidance on Good practice in the design and presentation of customer survey evidence in merger cases, Questionnaire section, available at https://www.gov.uk/government/publications/mergers-consumer-survey-evidence-design-and-presentation/good-practice-in-the-design-and-presentation-of-customer-survey-evidence-in-merger-cases (last accessed on 17 November 2020).

1150 Form CO, Information Services, Annex 122.

Profits potentially gained downstream

(999) In case of an input foreclosure strategy, the profits potentially gained downstream are twofold. *First*, profits would arise through additional sales of CRTDs (to end-customers who would be switching away from their existing provider or from end-customers who would add Refinitiv CRTDs). *Second*, further profits would arise from the administrative fee charged to end-customers on the revenue from sales of data channelled through Refinitiv CRTDs.

(1000) The Notifying Party provided information on the annual cost of adding Elektron to access LSE data for a large and for a medium-sized/small end-customer.[1151] These are included in Figure 14 below[1152]. The Notifying Party presented [large customer] as a representative example of a large end-customer of Refinitiv and [medium customer] group as a representative example of a medium-sized/small end-customer of Refinitiv.[1153]

Figure 14

[individual customer pricing]

Source: RFI 39 reply, Table 6.

(1001) The Commission estimated the potential revenue gained from end-customers moving their LSE real-time data requirements (as measured in Refinitiv Instrument Code ("RICs")[1154]) from a competitor to an existing Refinitiv CRTD and the cost of moving all CRTD requirements from a competitor data vendor to Refinitiv.

(1002) In order to estimate the incremental profits potentially derived downstream the Commission based itself on the estimates provided by the Notifying Party on the profitability of CRTD data solutions.

(1003) Refinitiv submitted that approximately [a small percentage] of its cost base is variable.[1155] According to Refinitiv, the most representative profit margin is likely to be the 30 September 2019 last twelve month adjusted EBITDA margin ([a significant percentage]).[1156] This is a highly conservative assumption because internal documents show that the estimated EBITDA of Elektron stood at [a very high percentage] to [a very high percentage].[1157] The Commission bases its estimate of incremental costs on the amounts provided in Figure 14 above.

(1004) Finally, data vendors retain a mark-up on end-user license fees (e.g. Refinitiv charges a so-called "administration fee" of [a small percentage] on top of end-user license fees) which is to be paid by end-customers on top of the CRTD price.[1158] The profits that Refinitiv could achieve downstream in case of a foreclosure strategy include the administrative fee charged by Refinitiv for LSE real-time venue data sold to new end-customers. To estimate the amount of the increase in profits through the

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1151 Annex 2 to the response to the decision pursuant to Article 6(1)(c), page 24.

1152 RFI 39 reply, Table 6.

1153 Annex 2 to the response to the decision pursuant to Article 6(1)(c) labeled by the Notifying Party 'Duplicative cost theory of harm', page 22.

1154 As explained in Section 3.13 above, RICs are security identifiers issued by Refinitiv attributing a unique code to individual securities. The number of RICs is therefore a measure of volume of use of venue data.

1155 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.

1156 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to […], from annex Annex 49 to the Form CO.

1157 "Refinitiv Roadshow Meeting Notes", Doc ID 4991-42863, p. 4.

1158 Form CO, paragraph D.198.

administrative fee, the Commission first estimated the additional share of the revenue downstream that would flow towards Refinitv by applying the switching rate observed in the market investigation to the share of the LSE real-time venue data currently served to end-customers by Refinitiv rivals. This estimate takes into account the end-customers that are multi-homing. To take a conservative approach, end-customers that use a Refinitiv CRTD, have not been considered as increasing profits of Refinitiv through the administrative fee. Based on these estimated additional revenues, the Commission calculated the additional profit, by applying the Refinitiv profit margin to the revenue estimate.[1159] Based on the switching rates observed in the market investigation the estimated additional profit amounts to […].

Multi-homing

(1005) Some end-customers source CRTDs from more than one provider, as submitted by the Notifying Party.[1160] If an end-customer already uses two or more CRTD providers and one of the providers is Refinitiv, the combined entity's downstream gains after foreclosure would likely be smaller because Refinitiv already serves the end-customer. The Commission evaluates the impact of multi-homing on the potential downstream gains of the combined entity as follows.

(1006) Real-time datafeeds can be provided under a "display" license (i.e. destined for human consumption) and/or a "non-display" license (i.e. destined for machine consumption). The Notifying Party provided estimates for the subset of LSE, BIT and Turquoise real-time venue data end-customers that access the data through more than one datafeed (i.e. "multi-homing") under a display licence as shown in Figure 15 below. The Notifying Party was not able to provide an overall estimate for end-customers who use Refinitiv and one or more CRTDs to access LSE real-time data end-customers. Such an estimate would include both end-customers who hold display and non-display licenses. However, the Notifying Party submits that such an estimate would not be significantly different from the estimate provided in Figure 15 below (which is only based on display licenses and covers LSE, Borsa Italiana, and Turquoise).[1161]

Figure 15

[Customer multi-homing information]

Source: RFI 34 reply, question 3, Table 1.

(1007) Because customers can share the data obtained through CRTDs within the company and the main cost of the CRTD is at the company level rather than the user level, the relevant proportions of multi-sourcing are estimated using the number of end-customers rather than end-users. Indeed, at the end-customer level the decision to add an end-user entails much less incremental costs than the decision at the end-customer level to contract a new CRTD serving many users.

(1008) The multi-homing estimate provided by the Notifying Party indicates that an estimated [a high percentage] of end-customers already receive LSE[1162] real-time data only through Refinitiv CRTDs. An additional [a small percentage] receive LSE real-time data through Refinitiv and another CRTD provider. In its estimates of the foreclosure incentives the Commission assumed that none of these end-customers

1159 The steps of the calculation are detailed under letter N in Table 77 below.
1160 See for example RFI 39 reply.
1161 RFI 39 reply, paragraph 28.
1162 As part of the estimates for LSE, Borsa Italiana and Turquoise real-time venue data.

would incur additional costs. Put differently, the Commission assumes that any end-customer with existing access to Refinitiv CRTD at company level would be able to use such connection to access LSE real-time venue data irrespective of internal company arrangements and possible technical connectivity concerns related to different office locations for some end-customers. This is a conservative assumption aimed at addressing any negative effect of multi-homing on potential downstream profits.

Calculating the minimum switching rates that would result in a profitable foreclosure strategy

(1009) The Commission estimates the minimum switching rate required to make a foreclosure strategy profitable from a business perspective in three scenarios. The Commission first estimates the conditions for a foreclosure strategy to be profitable basing itself on the financial data of a representative medium-sized/small end-customer, in this case, [medium customer] (see recital (1013) below). The Commission further estimates the same conditions based on the financial data of a representative large customer, in this case [large customer] (see recital (1014) below).

(1010) Estimating the foreclosure incentives requires an assumption on the expected switching rates and on what proportion thereof is represented by end-customers adding a Refinitiv CRTD, rather than switching their full CRTD demand to Refinitiv. The Commission's estimates are based on the switching rates observed in the Commission's Phase II market investigation, as summarised in Table 77 below (items A-C). These constitute scenario (a). As scenario (b), the Commission runs the calculation assuming that end-customers would only add Refinitiv CRTDs rather than fully switch away from their current providers.[1163] This scenario (b) reflects a situation of lower potential profits downstream compared to a situation where some end-customers would fully switch.

(1011) The Commission considered critical switching rates based on the potential gains downstream from medium-sized/small CRTD end-customers, using the cost data of [medium customer] looking at two scenarios:

(a) End-customers switching and adding in the same proportion as the switching rates observed in the market investigation, i.e. one end-customer switching for every 8.5 end-customers adding a CRTD. According to the Phase II market investigation, 68% of end-customers currently sourcing LSE real-time venue data from a competitor of Refinitiv would add a Refinitiv CRTD in case of total input foreclosure and 8% of those end-customers would switch their full CRTD to Refinitiv to the exclusion of other CRTD providers. This represents one end-customer switching fully for around 8.5 end-customers adding a Refinitiv CRTD. In the case of small/medium-sized end-customers as represented by the cost data of [medium customer] and holding this proportion constant, the Commission estimates that a total input foreclosure strategy would be profitable (in the sense that the profits lost upstream would be fully

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1163 The Notifying Party's considerations regarding single- and multi-homing customers in the submission "Assessing incentives for total foreclosure 'in-the-round'" dated 11 September 2020 are based on a limited number of observations, namely "the Licensing Data". Moreover, they are based on descriptive statistics that show revealed preferences of end-customers, i.e. choices of the number of data providers, pre-merger, and cannot be used to reliably infer potential long-term gains for the combined entity in the CRTD market post-Transaction.

compensated by the profits gained downstream) if at least [a small percentage] of end customers currently sourcing LSE real-time venue data from a competitor of Refinitiv add or switch to Refinitiv, consisting of [a small percentage] of these end customers adding a Refinitiv CRTD and [a very small percentage] of these end customers switching their full CRTD needs to Refinitiv.[1164] These levels are significantly below the switching and adding rates observed in the Phase II market investigation, in which 68% of end-customers declared their intentions to add Refinitiv in case of foreclosure and 8% declared their intention to switch their full demand to Refinitiv.[1165]

(b) *No end-customers switching fully, end-customers only adding Refinitiv CRTDs to their existing set of products.* This scenario corresponds to a sensitivity check of the findings under scenario (a) rather than the most likely scenario because the revenue downstream from customers adding a CRTD[1166] is assumed to be lower than end-customers switching all their demand[1167] and therefore it is more conservative when estimating the incentive to engage in total input foreclosure. The Commission determined that it would be sufficient that [a significant percentage] of end-customers of LSE venue data add a Refinitiv CRTD for the foreclosure strategy to be profitable.[1168] The overall switching and adding rate observed in the Phase II market investigation (76%) is more than three times higher than the adding required to create incentives to engage in total input foreclosure based on the revenue from small/medium customers.

(1012) The Commission also considered critical switching rates based on the potential gains downstream from large CRTD customers, using the cost data of [large customer] and looking at two scenarios:[1169]

(a) *End-customers switching and adding in the same proportion as the switching rates observed in the market investigation*. In this scenario, the revenue deriving from one single large end-customer switching all its CRTD requirements to Refinitiv would outweigh the loss of the income upstream fully.[1170] Therefore, there are very high incentives to foreclose competitors in CRTD solutions from the LSE real-time venue data.

(b) *No end-customers switching fully, end-customers only adding Refinitiv CRTDs to their existing set of products.* If no large customer switched all its CRTD requirements to Refinitiv, it would be sufficient that [a very small percentage] of all customers add a Refinitiv CRTD to make the foreclosure strategy profitable. In the Commission's market investigation, 76% of informative end-

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1164 Replacing letter B by 1% and letter C by 9% in Table 77 leads to a result where the profits from the foreclosure strategy as estimated under letter P are equal to the losses as estimated under letter O.

1165 In the SO, paragraph (425) reads: "... [t]*hese levels are significantly below the switching and adding rates observed in the Phase II market investigation, in which 69% of end-customers declared their intentions to add Refinitiv in case of foreclosure and 7% declared their intention to switch their full demand to Refinitiv*". Following the recalculations mentioned in paragraph (15)(i) above, 69% has been modified to 68% and [a small percentage] has been modified to [a small percentage]. The updated figures are also included in Items B and C of Table 7 below.

1166 As presented under letter C in Table 77 below.

1167 As presented under letter D in Table 77 below.

1168 See Item Z in Table 77 below.

1169 According to the Notifying Party, this data is representative of 48% of Refinitiv CRTD revenue. RFI 39 reply, paragraph 30.

1170 See Item D in Table 77 below.

customers submit that they would switch to or add Refinitiv CRTDs in case of total foreclosure. This percentage is […] times higher than the [a very small percentage] critical switching ratio estimated for large CRTD end-customers.

(1013) The Commission's estimates regarding for scenarios (a) and (b) for large end-customers and small/medium-sized end-customers are summarized in Table 77 below.

Table 77

Category of items		#	Item	Large customer	Small/ medium-sized customer
[…][1171]		A	[…]	[…]	
		B	[…]	[…]	
		C	[…]	[…]	
[…]		D	[…][1172]	[…]	[…]
		E	[…][1173]	[a very high percentage]	[a very high percentage]
		F	[…][1174]	[…]	[…]
[…]	[…]	G	[…][1175]	[…]	[…]
		H	[…][1176]	[…]	[…]
		I	[…][1177]	[a significant percentage]	[a significant percentage]
		J	[…][1178]	[…]	[…]
		K	[…][1179]	[…]	[…]
		L	[…][1180]	[…]	[…]
	[…]	M	[…][1181]	[…]	[…]
		N	[…][1182]	[…]	[…]
[…]		O	[…][1183]	[…]	[…]
		P	[…][1184]	[…]	[…]
[…]		R	[…][1185]	[…]	
		S	[…][1186]	[…]	

1171 Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469.
1172 RFI 39 reply.
1173 Form CO, Information Services, Annex 122.
1174 Calculated by the Commission (E*D).
1175 RFI 39 reply, Table 6, converted based on ECB average exchange rate EURUSD for 2019 (1.12). In detail for [large customer] USD and for [medium-sized small customer] USD.
1176 RFI 39 reply, Table 6, converted based on ECB average exchange rate EURUSD for 2019 (1.12).
1177 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to […], from annex Annex 49 to the Form CO.
1178 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.
1179 Calculated by the Commission (G*(1-(1-I)*J)).
1180 Calculated by the Commission (H*(1-(1-I)*J)).
1181 Form CO, paragraph D.198.
1182 Calculated by the Commission as the profits that Refinitiv could retain additionally downstream in case of a foreclosure strategy through the administrative fee would be EUR […] per year if 76% of end-customers currently not receiving LSE RTD through Refinitiv, would do so in the future, in line with the findings of the Phase II market investigation. Calculated by the Commission ((1-S-T)*F*A*M*(1-(1-I)*J)).
1183 Calculated by the Commission (F*(1-A)*(1-S-T).
1184 Calculated by the Commission (K+L+N).
1185 RFI 34 reply, Table 7.

Category of items	#	Item	Large customer	Small/ medium-sized customer
	T	[...]	[...]	
[...]	U	[...][1187]	[...]	
	V	[...][1188]	[...]	
[...]	X	[...]	[...][1189]	[a small percentage]
	Y	[...]	[...][1190]	[a very small percentage]
[...]	Z	[...]	[...]	[a significant percentage]

Source: Commission's analysis.

(1014) As a first robustness check,[1191] the potential downstream profit from the foreclosure strategy for large and small/medium-sized end-customers is weighted by the respective portion of revenue each end-customer category represents for Refinitiv, i.e., [a significant percentage] and [a significant percentage] respectively.[1192] The Commission considers that revenue-based weighting is appropriate for Refinitiv's CRTD business, given its high profitability (see Table 77 below). In this scenario, even assuming that no end-customer switches fully all its requirements to Refinitiv, the combined entity's total input foreclosure strategy would become profitable if as few as [a small percentage] of end-customers added Refinitiv CRTDs.[1193] In the Commission's market investigation, 76% of end-customers submitting informative responses indicated that they would switch to or add Refinitiv CRTDs in response to the combined entity engaging in a total input foreclosure strategy. This percentage is […] times higher than the [a small percentage] critical switching ratio in this revenue weighted scenario of large and small/medium-sized end-customers. The total profit from a total input foreclosure strategy in this scenario would amount to […].[1194]

(1015) The Notifying Party argues that the Commission should not weight the category of end-customers based on their shares of the revenue but based on the number of end-customers. In terms of absolute numbers, large end-customers represent only [a small

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1186 RFI 34 reply, Table 1.

1187 Calculated by the Commission (R*(1-S-T)*C).

1188 Calculated by the Commission (R*(1-S-T)*B).

1189 It is sufficient that one customer adds the Refinitiv feed to make the foreclosure strategy profitable.

1190 It is sufficient that one customer adds the Refinitiv feed to make the foreclosure strategy profitable.

1191 This robustness check responds to the Notifying Party's criticism that the switching rates are not representative of the Parties' wider customer base, particularly their "extremely large" customers (Response to the SO, Annex 1, pages 12ff.)

1192 RFI 39 reply, paragraph 30.

1193 The Commission calculated the profit by subtracting the figure under letter O from the figure under letter P in Table 77 below for large customers and for medium/small customers. The profit for large customers is multiplied by [a significant percentage] to which the Commission added the profit from medium/small customers multiplied by [a significant percentage]. The critical ratio for the combined scenario was determined by iteration, so that the revenue weighted profit returns zero.

1194 The profit of each respective category of clients is calculated as letter P minus letter O in Table 77 below.

percentage] of Refinitiv's CRTD customer base and small/medium-sized end-customers represent [a high percentage].[1195]

(1016) The Commission considers that even in a scenario where profits would be weighted by [a small percentage] and [a high percentage] for large customers and small to medium sized customers respectively, it would be sufficient that [a small percentage] of customers add a Refinitiv CRTD solution to make the total input foreclosure strategy profitable. This percentage is significantly below the proportion of end-customers who indicated that they would switch to or add Refinitiv CRTDs in case of total input foreclosure during the Phase II investigation (76%).

(1017) Based on the above, the Commission establishes a material financial incentive for the combined entity to engage in a total foreclosure in the market for CRTDs, by restricting access to LSE real-time venue data.

(1018) The Notifying Party considers that any possible increases in revenue to the combined entity are not merger specific and, if profitable, they could have been achieved by LSEG already before the merger in the upstream market for LSE venue data.[1196] The Commission notes that the Notifying Party's argument about merger specificity would only be valid if LSEG is an upstream monopolist that can set prices to monopoly level. The Non-Horizontal Merger Guidelines acknowledge that in case of an upstream monopolist a vertical integration might not have a negative impact on end-customers because monopolistic profits were already extracted upstream in full pre-merger.[1197] However, in this case, the Commission does not consider that LSEG could already extract all monopoly profits from its position in the upstream market for LSE venue data pre-merger for the following reasons.

(1019) *First*, the licensing of venue data is in the scope of financial regulation. The terms of licencing are either subject to regulation (e.g., Article 13 MiFIR) or potentially subject to regulation. This limits greatly the possibilities of LSEG to increase prices for the licencing of its venue data.[1198] This constraint would be alleviated through the Transaction in an input foreclosure scenario. This is because the price and commercial conditions of the sale of CRTDs are not subject to regulatory oversight and intervention, under the same rules as the licencing terms of venue data. Therefore, in case of input foreclosure in CRTDs, the Transaction would relax a constraint in terms of pricing that represents today a potential cap of the prices of venue data upstream.

(1020) *Second*, LSEG does not differentiate the prices it charges to different clients, a common practice to maximise monopoly revenues.[1199] This would change post-

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1195 Response to the SO, Information Services, Annex 2, page 15.

1196 Response to the SO, Information Services, paragraph 38. In the same vein, see Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, page 10.

1197 Non-Horizontal Merger Guidelines, paragraph 44.

1198 However, as explained in recitals (1050)ff., these regulatory constraints do not suffice to exclude any incentives of the combined entity to engage in input foreclosure in downstream markets, by restricting access to LSE venue data.

1199 How price discrimination of a downstream product/service allows better targeting of customer segments, i.e. to collect monopoly rents, is described also in the economic literature, for example in Genakos, Christos and Kuhn, Kai-Uwe and Van Reenen, John, Leveraging Monopoly Power by Degrading Interoperability: Theory and Evidence from Computer Markets (October 2018). Economica, Vol. 85, Issue 340, pp. 873-902, 2018, Available at SSRN: https://ssrn.com/abstract=3246023 and in Kai Uwe Kühn & John Van Reenen, 2008. "Interoperability and Market Foreclosure In the European Microsoft Case," CEP Special Papers 20, Centre for Economic Performance, LSE, available here https://ideas repec.org/p/cep/cepsps/20.html.

Transaction because, for example, Refinitiv is charging prices to its end-customers that vary widely not only on the volume of data supplied. The pricing of CRTDs by Refinitiv[1200] is not transparent and each customer can be charged a bespoke price based on its willingness to pay. This is exemplified by the revenue data from [large customer] and [medium customer] that does not depend only on volume (as estimated by RICs used) in Figure 14 above. Enhanced price discrimination in the downstream market would allow the combined entity to monetise the market power upstream in ways that are currently not possible to LSEG. The end-customers have a commercial relationship with Refinitiv which is not mediated through other companies. This allows Refinitiv to charge different prices per customer based on each customer's willingness to pay.

Additional robustness checks of the Commission's calculations

(1021) In the response to the SO, the Notifying Party questions the switching rates that the Commission used in its calculation in Table 76 above. The Notifying Party submits that these switching rates are based also on the replies of respondents who did not license LSE venue data at the time of the market investigation or respondents who already license LSE venue data through Refinitiv. According to the Notifying Party, these respondents should be excluded from the switching rates because they only had to answer theoretically to the question how they would react in case of total foreclosure.[1201] To address these concerns, the Commission recalculated the switching rates[1202] and tested the robustness of its incentive analysis using the updated switching rates. For the reasons explained below, the Commission found that the combined entity would have the incentive to engage in input foreclosure in the market for CRTDs, by restricting access to LSE venue data:

(a) If only end-customers that are currently licencing LSEG data were included in the sample, 69% of respondents would add a Refinitiv CRTD, whereas 10% would switch all their CRTD requirements to Refinitiv in the event that the combined entity engaged in a total input foreclosure strategy. In this scenario, the potential profit from a total input foreclosure strategy would amount to EUR […], instead of EUR […], in the case of a revenue weighted scenario of large and small to medium sized companies[1203]. This robustness check confirms the existence of an incentive for the combined entity to engage in a total input foreclosure strategy because the strategy remains highly profitable.

(b) In an alternative robustness check, only end-customers that currently purchase LSEG data today *and* do not have a Refinitiv solutions today at firm level are counted. Taking into account only these respondents, in the event of a total input foreclosure strategy, 64% of end-customers submitted that they would add Refinitiv CRTDs and 16% submitted that they would switch all their requirements to Refinitiv. In this scenario the potential profit from a total input foreclosure strategy would amount to EUR […], instead of EUR […].[1204] This confirms the Commission's conclusion on the profitability of a total foreclosure strategy in CRTDs involving LSE real-time venue data.

1200 The arguments in this recital are also valid for the downstream market of comprehensive desktop services.

1201 Response to the SO, Annex 1.

1202 Based on the RFI 45 reply, Appendix.

1203 As presented in recital (1014) above.

1204 As estimated in recital (1014) above.

(c) In view of the robustness checks that address the arguments raised by the Notifying Party, the Commission concludes that the combined entity would likely have significant financial incentives to engage in a full foreclosure strategy in the market for CRTDs, by restricting access to real-time LSE venue data.

B.2.2. Refinitiv distributes exclusively Tradeweb's venue data today through its CRTDs

(1022) According to the Non-Horizontal Merger Guidelines, in the assessment of the likely incentives of the combined entity, the Commission may take into account the type of strategies adopted on the market in the past,[1205] including the behaviour of the parties to the transaction.

(1023) The Commission notes that, absent the Transaction, Refinitiv restricts access to the data of its venue Tradeweb and distributes most of them exclusively through its own CRTD, Elektron.[1206] This behaviour shows that the combined entity could also have the incentive to restrict access to LSE venue data in the downstream market for CRTDs post-Transaction.

(1024) The exclusive distribution relationship between Refinitiv and Tradeweb regarding venue data dates back to 2001, when Tradeweb entered into an agreement with MoneyLine Telerate, a predecessor of Refinitiv.[1207] The agreement was renewed and expanded in November 2018 for [contractual term].[1208] Under the updated agreement, Refinitiv's exclusive distribution rights also cover [description of terms of Tradeweb exclusive distribution agreement].[1209] [description of terms of Tradeweb exclusive distribution agreement].[1210]

(1025) The Commission's market investigation shows that the right to distribute exclusively Tradeweb venue data is an important driver for Refinitiv's desktop CRTD product, Elektron.

(1026) *First*, Refinitiv's and Tradeweb's internal documents confirm this.

(a) An April 2020 Refinitiv presentation set out a [internal document] to [discusssion of commercial strategy].[1211] [discusssion of commercial strategy]. In an internal email exchange of 5 July 2019, Refinitiv's [Refinitiv senior employee] wrote following discussions with end-customers: [discusssion of commercial strategy].[1212]

(b) Tradeweb internal documents [Refinitiv discussion of commercial strategy regarding Tradeweb data]. In the negotiations for the renewal of the distribution agreement, Tradeweb sought to [discusssion of commercial strategy].[1213]

1205 Non-Horizontal Merger Guidelines, paragraph 45.

1206 And other types of data vendor products, such as desktop services.

1207 See https://www.tradeweb.com/newsroom/media-center/news-releases/moneyline-telerate-to-license-tradeweb-market-data/ (last accessed on 3 September 2020).

1208 See [internal document], Doc ID 4971-86938.

1209 See [internal document], Section 3.3., Doc ID 4991-41951.

1210 See [internal document], Section 2.4., Doc ID 4991-41951.

1211 [internal document], Doc ID 4794-39929. In the same vein, a Refinitiv presentation of June 2020 reads: [discussion regarding the commercial strategy between Refinitiv and Tradeweb]. See [internal document], Doc ID 4257-15444, page 9.

1212 [internal document], Doc ID 4151-23233.

1213 [internal document], Doc ID 4791-62363.

(1027) *Second*, in the market investigation, several end-customers identified Tradeweb data as a unique selling point for Elektron.[1214] End-customer Banco Santander notes: "*Some prices are only provided through an Elektron datafeed solution (eg. Tradeweb data – a Refinitiv Company)... Tradeweb represents near 50% of our datafeed spend with Refinitiv*".[1215]

(1028) *Third*, the importance of Tradeweb's exclusively distributed venue data in Refinitiv's business model is confirmed in Refinitiv public announcements.

(a) On the occasion of the renewal of the distribution agreement, a Refinitiv employee stated in 2018: "*Tradeweb data is among the most sought after and utilized data across the Refinitiv platform... This agreement is part of our ongoing program commitment to deliver new and unique content as a core foundation of our data analytics and workflow solutions*".[1216]

(b) In June 2019, Refinitiv received an award for the "*Best Market Data Provider (Vendor)".* On this occasion, a Refinitiv employee stated*: "we are always looking to increase our exclusivity and unique datasets... For example, we are the only data provider to carry Tradeweb and MarketAxess data, which strengthens our position in the fixed-income space*".[1217]

(1029) Finally, respondents in the market investigation considered that Refinitiv's conduct today could be an indication for the incentives of the combined entity post-Transaction. For example, end-customer Société Générale explains: "*we are concerned by the prospect of the LSE becoming both the source of the data from its trading platforms and the disseminator through Refinitiv's publishing (cf existing exclusive distribution of... most valuable Tradeweb data on Refinitiv with the risk of extension to other trading venues or data sources)*".[1218]

(1030) In its Response to the decision pursuant to Article 6(1)(c), the Notifying Party argues that the decision by Tradeweb to adopt an exclusive distribution model for its venue data cannot be taken as an indication that LSEG would do the same.[1219] [Rationale for Tradeweb entering the exclusive distribution agreement].

(1031) However, the Notifying Party's claims are contradicted by publicly available information regarding the agreement between Tradeweb and MoneyLine Telerate. The October 2001 press release regarding the agreement between MoneyLine Telerate and Tradeweb goes against the Notifying Party's argument that there was no real demand for Tradeweb data. Rather, when announcing the exclusive distribution of Tradeweb venue data, MoneyLine Telerate's CEO identified Tradeweb as "*the most liquid and successful fixed-income electronic trading platform in the world*

1214 Question 15, Questionnaire 19 to information services end-customers, Doc ID 6469.

1215 Question 19, Questionnaire 19 to information services end-customers, Doc ID 6469.

1216 See Refinitiv Press Release, "Refinitiv and Tradeweb Markets announce extension and expansion of exclusive redistribution agreement", 29 November 2018, available at https://www.refinitiv.com/en/media-center/press-releases/2018/november/refinitiv-and-tradeweb-expand-exclusive-redistribution-agreement (last accessed 11 June 2020).

1217 See Waterstechnology, "Best Market Data Provider (Vendor): Refinitiv", 4 June 2019, available at www.waterestechnology.com/awards-rankings/4351866/best-market-data-provider-vendor-refinitiv (last accessed on 7 June 2020).

1218 See Question 172.1, Questionnaire 9, Doc ID 6480. See also Minutes of call with COSSIOM, 20 December 2019, Doc ID 4081.

1219 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 48ff.

between dealers and their customers".[1220] The Chairman of the Board of Tradeweb and also a Managing Director of Goldman Sachs stated: "*The data offering that TradeWeb and its dealers have developed is the finest available in the dealer-to-customer sector and we expect it will be an invaluable resource to Telerate users*."[1221]

(1032) In any event, even if in 2001 Tradeweb decided to use an exclusive distribution model for its venue data because of low demand and high fixed costs, the Notifying Party does not explain why Tradeweb continues with the same model today.[1222] In an internal email of 19 October 2018, in the context of the negotiations with Refinitiv regarding the exclusive distribution deal, Tradeweb's [Tradeweb senior employee] described Tradeweb as [confidential commercial negotations][1223] Against this background, limited demand for Tradeweb data cannot possibly be the reason for the choice of exclusive distribution today. Nor can the fixed costs of establishing open data distribution channels be the main reason for Tradeweb's choice of exclusive distribution. Tradeweb already offers some limited datasets on a non-exclusive basis (e.g., benchmarks for UK Gilts based on data from the Tradeweb UK Gilt trading platform and benchmarks for US Treasury securities based on dealer-streaming prices from the Tradeweb US Treasury institutional platform).[1224]

(1033) In its response to the SO, the Notifying Party insists that the example of Tradeweb does not provide any evidence as to the future incentives of the combined entity:[1225]

(a) The Notifying Party provides examples of trading venues which have similar characteristics to LSE and do not exclusively distribute their venue data. These include CBOE (and its data vendor CBOE LiveVol); NYSE (owned by ICE); and SIX.

(b) The Notifying Party recalls that LSE operates a trading venue for cash equities which are standardised and lend themselves to the use of Order Book trading protocols, facilitating anonymous, high-frequency automated trade execution. Many market participants that trade cash equities in this context require real-time venue data in order to inform and facilitate their trading strategies. Restricting wide distribution of data from venues with these characteristics will affect the value of trading on the venue. Tradeweb has different characteristics. The instruments typically traded on Tradeweb (e.g., bonds) are less standardised. Trading markets for such assets are less liquid and more likely to be operated on the basis of an RFQ protocol. Access to real-time venue data is

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1220 See https://www.tradeweb.com/newsroom/media-center/news-releases/moneyline-telerate-to-license-tradeweb-market-data/ (last accessed on 3 September 2020).

1221 See https://www.tradeweb.com/newsroom/media-center/news-releases/moneyline-telerate-to-license-tradeweb-market-data/ (last accessed on 3 September 2020).

1222 The Notifying Party noted that Tradeweb is always reassessing its choice of distribution model – particularly when its existing distribution agreement nears expiration (see Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 51 and RFI 29 reply, question 11(b)). However, even if such a reassessment takes place, internal Tradeweb documents suggest that one of the main commercial considerations of Tradeweb is its [rationale for Tradeweb's distribution model] (see [internal document], Doc ID 4971-86938 and in the same vein, [internal document], Doc ID 4791-41863, page 8).

1223 See [internal document], Doc ID 4971-86938 (emphasis added). In the same vein, see [internal document], Doc ID 4794-20919; [internal document], Doc ID 4791-14479 and public announcements of Tradeweb, such as https://www.tradeweb.com/newsroom/media-center/news-releases/tradeweb-reports-record-march-trading-volume/ (last accessed on 3 September 2020).

1224 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 57.

1225 Response to the SO, Information Services, paragraphs 40ff.

less critical for trading under an RFQ protocol. Therefore, no inferences on the distribution of LSE venue data can be drawn from a venue with totally different characteristics like Tradeweb.

(c) The Notifying Party contests the Commission's decision to elevate the evidential value of Tradeweb's data distribution model above LSEG's commitment to open access, which is both long-standing and Group wide.

(1034) The three arguments raised in the response to the SO do not change the Commission's conclusion that the combined entity would have the incentive to engage in input foreclosure in CRTDs (restricting access to LSE venue data) and that Refinitiv's exclusive distribution of Tradeweb data is relevant to this conclusion:

(a) CBOE, ICE, and SIX are vertically integrated entities, including upstream a trading venue and downstream a data vendor (LiveVol, ICE, and SIX, respectively). However, these three data vendors have only limited (if any) presence in the market for CRTDs.[1226] This likely prevents CBOE, ICE, and SIX from distributing their venue data exclusively through their respective data vendors. Unlike LiveVol, ICE, and SIX, Refinitiv is the dominant player in the worldwide market for CRTDs for the reasons explained in Section 4.5.1.2.B.1. above. The Commission thus did not consider CBOE, ICE or SIX as relevant comparators to determine the possible incentives of the combined entity post-Transaction.

(b) Tradeweb does not only operate RFQ-based trading venues. It also operates venues using Order Book Trading Protocols, e.g., Dealerweb regarding EGBs.[1227] There is no evidence that Dealerweb suffered from limited liquidity because of the exclusive distribution of Tradeweb venue data in the past ~20 years. Rather, Table 3 above shows that average daily trading volumes on Dealerweb have increased between 2016 and 2019.

(c) Today, LSEG is active in the upstream market for LSE venue data but it is not present in CRTDs, the market that the input foreclosure strategy in question would impact. By contrast, Refinitiv is active in this market and also controls Tradeweb, which offers venue data. The Commission has taken into account Refinitiv's current behaviour in the market for CRTDs, as that is the Party that is already active in this market.[1228] In any event, as regards LSEG's "open access" principle, the Commission's assessment of incentives cannot rely exclusively on an internal company policy, however long-dated and consistently endorsed it may have been.

B.3. Partial foreclosure

(1035) The combined entity would have the incentive to engage also in partial foreclosure in CRTDs, by technically degrading the access to LSE real-time venue data. Such a strategy would be profitable taking into account the Commission's economic

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1226 ICE holds a share of [10-20] or less in the worldwide market for CRTDs. SIX holds a share of [0-5] or less in the same market (see Form CO, Information Services, Annex 201). The Commission did not find any evidence showing that LiveVol is active in the relevant market for CRTDs (taking into account the market share tables submitted by thet Notifying Party; Refinitiv's internal documents; and the results of the market investigation).

1227 Form CO, paragraph B.143.

1228 The Commission also took into account LSEG's past behaviour, at the time when its affiliate entity, Borsa Italiana was vertically integrated with a data vendor, Borsa Italiana Market Services. See Section 4.5.2.2.B.3.2. below.

analysis on total foreclosure. Moreover, LSEG has faced antitrust scrutiny in the past for partial foreclosure of rival data vendors regarding Borsa Italiana venue data.

B.3.1. A partial foreclosure strategy would be profitable

(1036) The combined entity will have an incentive to engage in an input foreclosure strategy if doing so proved profitable. The economic analysis presented above shows that the combined entity would have the incentive to engage in total input foreclosure, altogether depriving rival CRTD providers from access to LSE venue data.

(1037) The same economic analysis would support that the combined entity also has the incentive to engage in partial input foreclosure based on technical degradation (i.e., offering LSE venue data with higher latency or otherwise lower quality). In the market investigation, both in a total foreclosure scenario and in a partial foreclosure scenario concerning LSE venue data, more than 65% of informative end-customers confirm that they would switch all of their CRTD requirements to Refinitiv or add a Refinitiv CRTD on top of their existing CRTD.[1229] Table 78 below shows that the percentages of end-customers switching or adding CRTDs are not fundamentally different in the two scenarios. The combined entity can thus expect to make similar gains in the downstream market for CRTDs through partial input foreclosure as through total input foreclosure.

Table 78

Upstream Market	Downstream Market	Type of Input Foreclosure	Percentage of End-customers...[1230]		
			... switching to Refinitiv CRTDs	... adding Refinitiv CRTDs	... only keeping their existing CRTD provider[1231]
LSE Venue Data	CRTDs	Total[1232]	8%	68%	24%
		Partial[1233]	17%	50%	33%

Source: Question 24, Questionnaire 19 to information services end-customers, Doc ID 6469

B.3.2. LSEG has faced antitrust scrutiny in the past for partial foreclosure of rival data vendors regarding Borsa Italiana venue data

(1038) In the assessment of the combined entity's incentives, the Commission may take into account the type of strategies adopted in the market in the past,[1234] including the behaviour of the parties to the transaction.

(1039) Borsa Italiana, which is controlled by LSEG, operates several trading venues. In 2015, Borsa Italiana became the target of antitrust complaints before the Italian Competition Authority, the AGCM.[1235] Borsa Italiana was active upstream in the market for supplying venue data generated through its trading venues. Borsa Italiana was also active downstream, in the markets for CRTDs and desktop services, through its subsidiary Borsa Italiana Market Services ("BIMS"). e-Class, a data vendor

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1229 Regarding the comprehensiveness and representativeness of the information provided in the market investigation, see recitals (985)ff above.

1230 Estimated based on informative end-customers (i.e., excluding all respondents who selected "Other", unless their reply could not be categorized to one or more of the options provided).

1231 Without adding any other product, thus accepting slower/lower-quality access to the LSE venue data.

1232 Question 19.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1233 Question 19.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

1234 Non-Horizontal Merger Guidelines, paragraph 45.

1235 A482 – *E-Class/Borsa Italiana*, Provvedimento n. 25859, Bolletino N. 4, 22 February 2016.

competing with BIMS, filed a complaint with the ACGM alleging that Borsa Italiana had introduced more favourable terms for the redistribution license of its venue data to BIMS, compared to the terms offered to BIMS' rivals. This difference allowed BIMS to offer to end-customers terms that competitors could not replicate.[1236]

(1040) To deal with these competition concerns, Borsa Italiana proposed a set of structural and behavioural commitments within 3 months from the opening of proceedings.[1237] The structural commitment concerned the divestiture of Market Connect, namely, the business branch of BIMS that was active in the downstream market for desktop services and CRTDs. As for the behavioural commitments, Borsa Italiana committed to use its best efforts to offer standardised licensing conditions for its venue data to all the data vendors active in the downstream markets (CRTDs and desktop services) until the divestiture of BIMS was complete. Borsa Italiana modified its commitments proposal twice, once to reflect instructions by the AGCM[1238] and once to reflect the comments submitted by downstream rivals during the market test.[1239] On 3 February 2016, the AGCM made Borsa Italiana's commitments binding and closed the proceedings without ascertaining an infringement, as per Article 14-ter of Law No. 287/1990.

(1041) The Commission takes Borsa Italiana's past conduct into consideration in its assessment. The fact that Borsa Italiana engaged in some form of discriminatory behaviour in the past benefiting its own affiliate downstream provides an indication that LSE might have the incentive to do the same in the future. In any event, the fact that there was no formal finding of antitrust violation cannot be taken as proof to the contrary, in particular considering that it is common practice for competition authorities, including the AGCM, not to issue decisions formally sanctioning an antitrust violation if the companies concerned take actions that are sufficient to remedy the abusive conduct.

(1042) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argues that "*mere allegations regarding Borsa Italiana's... behaviour which did not give rise to an infringement finding have no probative value*".[1240] It adds that "*LSEG was already prior to the investigation considering the sale of BIMS or... Market Connect as these were viewed as peripheral to the core business*".[1241] The Notifying Party repeated these arguments in its Response to the SO.[1242]

(1043) However, the Notifying Party's claims do not change the Commission's conclusion for the following reasons:

1236 The initial e-Class complaints focused on alleged margin squeeze/predatory pricing by BIMS in tenders supposedly facilitated by its vertical integration with Borsa Italiana (RFI 29 reply, question 2). The AGCM opened an antitrust investigation covering all "*exclusionary contractual provisions*" that Borsa Italiana imposed on data vendors competing with BIMS. As the AGCM explained, "[t]*he potentially excluding contractual conditions would consist of: i) the preparation of restrictive contractual clauses, concerning the methods and conditions for accessing and using one's financial data, followed by a pressing auditing activity carried out by BIt at the end customers of the competing vendors of BIMS; ii) request for economic fees other than those paid by BIMS, such as to make BIMS offers for the supply of financial information services not replicable for competitors"* (A482 – *E-Class/Borsa Italiana*, Provvedimento n. 25859, Bolletino N. 4, 22 February 2016, paragraph 7).

1237 Proceedings were opened on 8 April 2015. The first remedy proposal was submitted on 14 July 2015 (see RFI 29 reply, Annex 2.1).

1238 RFI 29 reply, Annex 2.2.

1239 RFI 29 reply, Annex 2.3.

1240 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 58ff.

1241 RFI 29 reply, question 2.

1242 Response to the SO, Information Services, paragraphs. 52ff.

(a) The AGCM did not investigate further Borsa Italiana's behaviour because this was not necessary. Borsa Italiana immediately offered commitments that addressed the competition concerns raised.

(b) Even assuming that the sale of BIMS/Market Connect was considered independently of the investigation, Borsa Italiana would have the incentive to refute "mere allegations" against it instead of offering commitments immediately. This way, it would be able to decide on the terms and the buyer of the divested entity purely on commercial terms and at its own timing.

B.4. Other common considerations regarding incentives for total and partial foreclosure

(1044) This Section discusses two additional arguments of the Notifying Party regarding the combined entity's incentives to engage in total/partial foreclosure: one related to role of regulatory scrutiny and one related to countervailing buyer power.

B.4.1. Regulatory scrutiny does not prevent the combined entity from engaging in foreclosure

(1045) According to the Non-Horizontal Merger Guidelines, when assessing the incentives for input foreclosure, the Commission must take into account whether the conduct of the combined entity would be unlawful. Conduct maybe unlawful because of sector-specific rules at the EU or national levels. In this context, the Commission takes into account: (i) the likelihood that this conduct would be clearly or highly probably unlawful under EU law; (ii) the likelihood that this illegal conduct could be detected; and (iii) the penalties which could be imposed.[1243]

(1046) Article 13 MiFIR requires trading venues to make venue data available to the public on a reasonable commercial basis ("RCB") and to ensure non-discriminatory access to the information. Article 13 MiFIR does not apply to all types of venue data – only to "*transparency data*", namely a set of core elements of the venue data.[1244] In practice, trading venues often supply data packages which combine transparency data with other inputs and/or subject them to further manipulation. These data packages are not subject to Article 13 MiFIR as long as the trading venue provides the transparency data on a standalone basis upon request (e.g., through a standalone transparency datafeed).

(1047) The Notifying Party submits that LSEG has consistently maintained a commercial approach of supplying all of its venue data on non-discriminatory terms and on an RCB. This approach pre-dates the MiFIR and LSEG has maintained it after the introduction of the MiFIR.[1245] However, the Notifying Party specifies that several of its venue data products are subject to Article 13 MiFIR only "*as a direct result of LSEG's commercial decision"* to make the data available as an enriched data package rather than doing so on a standalone basis.[1246] LSEG could thus decide to depart from this commercial decision. The Notifying Party notes that a change to this approach would "*require a significant reorganisation of current operations*".[1247]

1243 Non-Horizontal Merger Guidelines, paragraph 46.

1244 Articles 3 and 6 MiFIR relate to pre-trade and post-trade (respectively) transparency requirements in relation to current bid and offer prices and depth of trading interests at those prices for shares, depositary receipts, ETFs, certificates and other similar financial instruments. Articles 4 MiFIR relates to waivers for equity instruments. Article 11 relates to authorisation of deferred publication.

1245 RFI 41 reply, question 1(b).

1246 RFI 31 reply, question 2 and RFI 41 reply, question 1(a), Real time data appendix (revised).

1247 RFI 41 reply, question 1(b).

However, it does not provide any estimate what this would mean in terms of timing or costs. The only quantifiable element provided by the Notifying Party is that a change in commercial approach would require contractual updates across more than 600 customers.[1248] The Commission takes the view that in itself, this is unlikely to impede a change in commercial strategy by the Notifying Party. For example, LSEG recently changed the pricing and licensing terms for its security identifiers, which are purchased by more than 2 000 users.[1249]

(1048) Against this background, the Commission takes the view that despite Article 13 MiFIR, the combined entity would maintain the incentive to engage in total/partial input foreclosure involving real-time venue data for the following reasons.

(1049) *First*, 48% of LSE's real-time venue data products do not fall squarely within the scope of Article 13.[1250] It is only "*as a direct result*" of LSEG's commercial strategy that Article 13 MiFIR applies to these products. Post-Transaction, at any time, the combined entity could change its commercial strategy and start offering a standalone transparency datafeed with transparency data. The combined entity would thus exclude several LSE real-time venue data products from the application of Article 13 MiFIR. The Notifying Party does not contest this.

(1050) *Second*, even if all LSE real-time venue data were subject to Article 13 MiFIR and there was no possibility for the Notifying Party to change its commercial strategy, this would not suffice to eliminate all incentives of the combined entity for total/partial foreclosure.

(1051) This could be the case only when this conduct would be clearly or highly probably unlawful under EU law.[1251] Yet, regarding the precise requirements of Article 13 MiFIR, in its 2019 review report, ESMA recognized that "*there may be room to clarify some of the guidance published*".[1252] In more detail:

(a) As regards the obligation to make venue data available to the public on a reasonable commercial basis, ESMA noted that "*RCB provisions have not delivered on their objectives... the most appropriate way forward should be to work on supervisory guidance in 2020...*".[1253]

(b) As regards the non-discriminatory access obligation, trading venues are obliged to ensure non-discriminatory access to their (transparency) venue data and in particular that access is provided on the same terms and conditions to all customers falling within the same category in accordance with published objective criteria (including data vendors and end-customers). However, the categories of customers are defined individually by each trading venue. According to ESMA, this can create confusion and the criteria for categorizing customers are currently not always published.[1254] It can also allow for

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1248 RFI 41 reply, question 1(b).

1249 See https://www.lseg.com/sites/default/files/content/documents/SEDOL%20Pricing%20Policy%20Letter%20Jan%202020%20FINAL.pdf (last accessed on 11 November 2020).

1250 RFI 41 reply, question 1(a), Real time data appendix (revised).

1251 Non-Horizontal MergerGuidelines, paragraph 46.

1252 ESMA, MiFID II/MIFIR Review Report No. 1, page 32.

1253 ESMA, MiFID II/MIFIR Review Report No. 1, page 34.

1254 ESMA, Consultation Paper: Guidelines on the MiFID II/MIFIR obligations on market data, 6 November 2020, ESMA70-156-2477, paragraph 33, available at https://www.esma.europa.eu/sites/default/files/library/esma70-156-2477_cp_guidelines_on_market_data.pdf (last accessed on 11 November 2020).

particularly narrow or overlapping categories which could undermine the application of the non-discrimination principle in Article 13 MiFIR[1255] as further specified in Article 86 of Commission Delegated Regulation No 2017/565[1256] and Article 8 of Commission Delegated Regulation No 2017/567.[1257] ESMA is planning to publish guidance to address these issues and further clarify the requirements of Article 13 MiFIR by the second quarter of 2021.[1258]

(1052) Market investigation respondents confirmed that the lack of clarity regarding MiFIR provides leeway to the combined entity to engage in foreclosure strategies regarding its venue data. COSSIOM, an association of market data users, "*believes that MiFID II in general, and* [non-discrimination] *obligations in particular, are not always yet sufficient to prevent the potential anti-competitive conduct* [by the combined entity]".[1259] Data vendor Bloomberg adds: "*Although, at least in terms of regulated data, applicable financial regulations may require LSEG to supply access to regulated data on non-discriminatory, cost plus terms, existing regulation is not a sufficient protection. LSEG may choose aggressive interpretations of what the law requires... The widespread criticisms regarding a lack of clear compliance by exchanges with* [regulation]*, and the significant ambiguity in what* [regulation] *means, do not provide comfort that financial regulations will suffice to limit strategic and potentially anticompetitive behaviour*".[1260]

(1053) *Third*, the UK's withdrawal from the EEA introduces additional legal uncertainty in the application of Article 13 MiFIR by LSE post-Transaction. The Notifying Party submits: "*when the transitional period ends* [on 31 December 2020], *LSEG's UK trading venue operated by LSE plc... will not be subject to MiFIR and so will not be subject to Article 13*".[1261]

(1054) The Notifying Party recalls that the UK is onshoring MiFIR pursuant to Section 3 of the European Union Withdrawal Act 2018. According to the Notifying Party, this means that the LSE will still be required to provide transparency data on an RCB, and on non-discriminatory terms, even after 31 December 2020.[1262] However, this would not suffice to eliminate all incentives of the combined entity for total/partial foreclosure:

1255 ESMA, Consultation Paper: Guidelines on the MiFID II/MIFIR obligations on market data, 6 November 2020, ESMA70-156-2477, paragraphs 38ff, available at https://www.esma.europa.eu/sites/default/files/library/esma70-156-2477_cp_guidelines_on_market_data.pdf (last accessed on 11 November 2020).

1256 Commission Delegated Regulation (EU) No 2017/565 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive, OJ L 87, 31.03.2017, p. 1.

1257 Commission Delegated Regulation (EU) No 2017/567 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to definitions, transparency, portfolio compression and supervisory measures on product intervention and positions, OJ L 87, 31.03.2017, p. 90.

1258 To this end, ESMA published its Consultation Paper: Guidelines on the MiFID II/MIFIR obligations on market data, 6 November 2020, ESMA70-156-2477, available at https://www.esma.europa.eu/sites/default/files/library/esma70-156-2477_cp_guidelines_on_market_data.pdf (last accessed on 11 November 2020).

1259 See Minutes of call with COSSIOM, 20 December 2019, paragraphs 37ff, Doc ID 4081.

1260 Question 36.1, Questionnaire 18 to data vendors, Doc ID 6468 and in the same vein, Question 16.4, Questionnaire 13 to venue data providers, Doc ID 6463.

1261 RFI 31 reply, question 3.

1262 RFI 31 reply, question 3.

(a) There is no guarantee that ESMA's guidelines regarding Article 13 MiFIR will be onshored and apply to LSE following the end of the transitional period; and

(b) There is no guarantee that after 31 December 2020, the UK legislation would not evolve away from MiFIR principles.

(1055) The Notifying Party argues that Article 13 MiFIR aside, the combined entity would not have the incentive to engage in total/partial input foreclosure regarding LSE venue data because in general, it operates under close regulatory scrutiny and this will continue post-Transaction.[1263]

(1056) However, the Notifying Party's claims do not change the Commission's conclusion that the combined entity would have the incentive to engage in total/partial input foreclosure of LSE real-time venue data post-Transaction. Following the withdrawal of the UK from the EEA and the end of the transitional period in 31 December 2020, LSE as a trading venue will not be subject to regulatory scrutiny from any authorities in the EEA. The Commission cannot rely on the enforcement of third-country legislation by a third-country regulatory authority (likely the UK Financial Conduct Authority ("FCA")) to exclude all incentives of the combined entity to engage in input foreclosure.

(1057) In any event, in March 2020, the FCA launched a call for input regarding access to wholesale data. The reason for this call for input is to investigate among other things the "*potential for discriminatory pricing*" in venue data.[1264] This call for input and the FCA's need to investigate further the licensing of trading venue data shows that in the past, the possibility of regulatory scrutiny might not have prevented venues from engaging in anti-competitive conduct.

(1058) The Commission also concludes that the AGCM's antitrust investigation into Borsa Italiana's behaviour is insufficient to discourage the combined entity from partial input foreclosure through technical degradation in the market for CRTDs. *First*, such a technical degradation would be difficult to detect. It is very unlikely that a company or competition authorities would be in a position, at any given time, to effectively compare the technical terms of its access to LSE venue data with the terms of Refinitiv's access. *Second*, the Notifying Party does not see its conduct as clearly unlawful under Article 102 TFEU or the equivalent national law provisions. Rather, it considers that the AGCM's investigation involves "*mere allegations... which did not give rise to an infringement finding*".[1265] Against this background, it is unlikely that the AGCM's past investigation eliminates altogether the combined entity's incentive to engage in future input foreclosure regarding LSE venue data (upstream) and CRTDs (downstream).

B.4.2. The majority of end-customers would not have the power to retaliate against the combined entity

(1059) According to the Notifying Party, the combined entity would not have the incentive to engage in a total/partial foreclosure strategy involving LSE venue data, because

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1263 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 67ff and 141.

1264 FCA, Call for Input, Accessing and Using Wholesale Data, March 2020, paragraph 3.38, available at https://www.fca.org.uk/publication/call-for-input/call-for-input-accessing-and-using-wholesale-data.pdf (last accessed on 7 September 2020).

1265 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 136.

any strategy restricting access to venue data through rival CRTDs would face immediate backlash from end-customers.[1266]

(1060) Contrary to the Notifying Party's claims, the market investigation suggested that end-customers do not have buyer power to tackle an input foreclosure strategy in CRTDs. 65% of informative end-customers submits that they could not take action to prevent or discourage any foreclosure behaviour or in any event, they could not do so effectively.[1267] In the response to the SO, the Notifying Party identified seven end-customer respondents who indicate that they would deploy retaliatory strategies in the event of a foreclosure strategy[1268] and two end-customer respondents who submit that they would apply trade association pressure.[1269] However, these respondents only represent a minority of the informative respondents to the Commission's market investigation.[1270]

(1061) None of the additional arguments that the Notifying Party submits change the Commission's conclusion regarding the absence of countervailing buyer power in the market for CRTDs.

(1062) *First*, the Notifying Party argues that there is countervailing buyer power because of customer concentration. In LSEG's information services division, only [a very small percentage] of customers represents [a high percentage] of total revenues. [a very small percentage] of Refinitiv's customers represents [a high percentage] of total revenues. According to the Notifying Party, there is also material overlap between the Parties' top customers.[1271]

(1063) But, contrary to the Notifying Party's claims, customer concentration in itself does not constitute evidence of buyer power.[1272] In any event, in absolute terms, the customer base of LSEG's information services division and of Refinitiv are far from concentrated. The [a very small percentage] of customers that represents [a high percentage] of revenues in LSEG's information services division includes […] customers spending approximately EUR […] on average in 2019.[1273] The [a very small percentage] of customers that represents [a high percentage] of Refinitiv's revenues includes […] customers spending on average approximately EUR […] in 2019.[1274] Given how many customers make up even the [a very small percentage] of the customer base is for both Parties,[1275] most individual customers are unlikely to be sufficiently sizable buyers to hold countervailing buyer power. Moreover, these

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1266 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 70ff.

1267 Question 26, Questionnaire 19 to information services end-customers, Doc ID 6469.

1268 Response to the SO, Information Services, paragraph 55. The Notifying Party identified Standard Life; Nomura; Banco Santander; DZ Bank; Daiwa Capital Markets; Danske Bank; and IHS Markit as end-customers who responded that they would deplay retaliatory strategies in response to a foreclosure strategy in CRTDs. However, IHS Markit's response is selectively quoted. The Notifying Party only cites the following: "*We have a constructive relationship with both LSEG and Refinitiv and in these circumstances we would look to leverage these relationships to mitigate such behaviour so that it does not result in a detrimental impact on the products we offer*". The Notifying Party omitted the previous sentence which reads: "*IHSM does not consider that it would be able to engage in any specific retaliatory practices (for example, switching to other providers in respect of other products) to prevent or discourage the potential behaviours outlined above*." (emphasis added).

1269 Response to the SO, Information Services, paragraph 55.

1270 Question 26, Questionnaire 19 to information services end-customers, Doc ID 6469.

1271 Response to the decision pursuant to Article 6(1)(c), Information services, paragraph 71.

1272 See Commission decision of 17 November 2010, Case M.5658 - *Unilever/Sara Lee*, paragraph 599

1273 Response to the decision pursuant to Article 6(1)(c), Information services, Annex 3, page 3.

1274 Response to the decision pursuant to Article 6(1)(c), Information services, Annex 3, page 5.

1275 For LSEG, taking into account the information services division.

customers are too dispersed to act in concert to exert collectively any countervailing buyer power.

(1064) In any event, end-customers are unlikely to have buyer power in CRTDs because switching away from their current provider is very complex (as explained in recitals (976)ff above), so they could not threaten to immediately switch to alternatives.

(1065) *Second*, the Notifying Party argues that end-customers have multi-product relationships with Refinitiv and they often leverage them in order to get better terms in their agreements. For example, many end-customers negotiate all renewals in the same quarter.[1276] In this respect, the Notifying Party provides two examples of contract renewals whose multi-product scope included CRTDs: [large customer] and [large customer].[1277]

(1066) The Commission notes that multi-product relationships can also provide leverage to the supplier -- not only the purchaser. Indeed, during the market investigation, Refinitiv's competitor FactSet submitted that "*[s]ince Blackstone's acquisition of Refinitiv from Thomson Reuters in October 2018..., Blackstone has been leveraging its relationships with banks that provide capital markets and advisory services by threatening to withhold their investment banking business (and significant fees) to pressure those banks to use Refinitiv over competitive products*".[1278] Refinitiv's internal documents confirm this. In February 2018, shortly after the Blackstone acquisition was announced, Refinitiv reported that end-customer [large customer] raised [customer feedback regarding prices following the Blackstone transaction].[1279] In an email of 22 February 2018, Refinitiv's [Refinitiv senior employee] proposed: [discussion of commercial strategy following the Blackstone transaction].[1280]

(1067) Turning to the examples of [large customer] and [large customer], which were selected by the Notifying Party among all end-customers, there is no conclusive evidence that these two end-customers exerted buyer power in negotations with Refinitiv, based on the review of Refinitiv's internal documents:

(a) In 2018, [large customer] renegotiated its global data licence ("GDL") with Refinitiv, covering CRTDs. The Notifying Party submits that [large customer] achieved more favourable terms in two ways: [details of commercial negotiation][1281]. Instead, in a note titled [description of internal document], the renewal of [large customer]'s agreement was simply described as [details of commercial negotiation].[1282] Refinitiv added that [details of commercial negotiation].[1283] In the same vein, in an email of 27 August 2018, Refinitiv's CEO wrote about the renewal of GDL: [details of commercial negotiation].[1284]

(b) In 2019, [large customer] renegotiated its licenses for pricing and reference data and for real-time data (CRTDs). According to the Notifying Party, [large customer] threatened to switch to competing vendors for both types of data if

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1276 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 3, page 18.

1277 RFI 29 reply, question 32.

1278 FactSet's letter of 31 January 2020, page 1, Doc ID 3803.

1279 [internal document], Doc ID 4991-50661, page 5.

1280 [internal document], Doc ID 4794-26636.

1281 Approved Publication Arrangements data regarding the publication of quotes in OTC markets enhancing pre- and post-trade transparency.

1282 In the same vein, see RFI 29 reply, Annex 32.4, which includes an email of 30 August 2018, where Refinitiv's [senior employee] wrote: [details of customer negotiation].

1283 The note reads: [details of customer negotiation] (see [internal document], Doc ID 4794-6886).

1284 [internal document], Doc ID 4257-16777.

Refinitiv did not reduce the total value of the contract by [details of commercial negotiation]. The outcome is that Refinitiv indeed offered the [details of commercial negotiation].[1285] However, Refinitiv's internal documents show that it also benefited itself from leverage in the negotiations with [large customer]. In an email of 13 May 2019, Refinitiv's [senior employee], wrote: [details of commercial negotiation].[1286] [details of commercial negotiation].[1287] In response to this, Refinitiv relied on its incumbent position in the market for CRTDs and mentioned to [large customer] [details of commercial negotiation].[1288] Finally, during the negotiations, Refinitiv was aware that it could [details of commercial negotiation]. In an email of 9 February 2019, Refinitiv's [details of commercial negotiation].[1289]

(1068) The examples of [large customer] and [large customer] do not provide conclusive evidence that significant buying power was exerted for the reasons explained above. But even if these two customers, which figure among the top end-customers of the Parties, individually have some buyer power, this cannot be extrapolated to the remaining end-customers of Refinitiv, who as explained in recital (1062) above expressed that they would not have the ability to engage in any successful practices to prevent or discourage foreclosure.

(1069) *Third*, the Notifying Party refers to negotiations between Refinitiv and [large customer] in the fourth quarter of 2017. [large customer] is a redistributor of Refinitiv's data to third parties (through its [product] platform). [large customer] also licenses Refinitiv products (e.g., CRTDs) for its own, internal use. The Notifying Party argues that in the 2017 negotiations, [details of a commercial negotiation]. However, Refinitiv's internal documents do not confirm the assertions of the Notifying Party.[1290] They show that Refinitiv perceived the [Refinitiv's commercial and strategic analysis]. In an email of 13 March 2018, a Refinitiv Global Business Director briefed the CEO and other Refinitiv executives regarding the agreement. He noted: [commercial terms].[1291] [commercial terms][1292]

(1070) *Fourth*, the market investigation demonstrated that data vendors do not have countervailing buyer power. Competing data vendors did not identify any potential retaliatory actions or leverage that they could use in the face of an input foreclosure strategy.[1293] The Notifying Party has not made the argument nor submitted any evidence to the Commission that data vendors would have countervailing buyer power preventing or discouraging a total/partial foreclosure strategy.[1294] As such, the

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1285 [internal document], Doc ID 4991-2027, page 67.

1286 [internal document], Doc ID 4151-39299.

1287 [internal document], Doc ID 4794-20423.

1288 RFI 29 reply, Annex 32.3.

1289 [internal document], Doc ID 4151-2864. In the same vein, Refinitiv's Global Head of Key Strategic Accounts reported on his contacts with [large customer] regarding [large customer] in an email of 19 December 2018, […], Doc ID 4991-10972.

1290 RFI 29 reply, question 32.

1291 [internal document], Doc ID 4257-8017.

1292 RFI 29 reply, Annex 32.8, page 1.

1293 Question 174, Questionnaire 8 to data vendors, Doc ID 6479.

1294 In the Response to the SO, the Notifying Party referred to Moody's and MSCI as data vendors who would "*push back or even switch away to alternative providers of content in the event of a partial foreclosure strategy*" (Response to the SO, Information Services, paragraphs 51 and 55(h)). However, none of these providers are active in CRTDs and their response to the market investigation was

Commission concludes that neither the end-customers of the LSE venue data, nor the data vendors who redistribute it, would have countervailing buyer power vis-a-vis the combined entity.

C. Impact on effective competition

(1071) A total/partial input foreclosure strategy involving LSE real-time venue data would significantly impede effective competition in the market for CRTDs.

(1072) A total/partial input foreclosure strategy would strengthen Refinitiv's dominance in CRTDs. Refinitiv is the incumbent player in this market enjoying high end-customer retention rates. While rivals have emerged and compete often on the basis of aggressive discounting, it is difficult for them to challenge Refinitiv's market position because switching CRTD providers is complex and expensive for end-customers. Post-Transaction, a total/partial foreclosure strategy of the combined entity would make it even harder for rivals to compete effectively with Refinitiv, because they would miss an important input from their CRTD, the LSE venue data. A total/partial foreclosure strategy regarding LSE venue data would also raise even higher the barriers to entry in the market for CRTDs. The impact of the foreclosure on rivals would be amplified by the combined entity's ability to use commercially sensitive information to target rivals' customers (see Section 4.5.7. for a discussion of these non-coordinated effects).

(1073) Moreover, a total/partial input foreclosure strategy would directly harm end-customers of CRTDs in the short term. Many of them would be forced to add a Refinitiv CRTD to continue accessing LSE real-time venue data.[1295] As a result, end-customers would have to pay more for CRTDs without any additional benefit compared to the way the end-customer accesses the data today.

(1074) The results of the market investigation confirm that the proposed Transaction would have a negative impact on the market for CRTDs.

(1075) Finally, the Commission notes that the Notifying Party has not shown cumulatively consumer benefits, merger-specificity and verifiability of the submitted efficiencies.

C.1. A total/partial foreclosure would impact effective competition

C.1.1. Strengthening of Refinitiv's dominance and foreclosure of existing rivals by degrading the quality of their CRTDs

(1076) A total/partial input foreclosure strategy would allow Refinitiv to strengthen its dominance in CRTDs. Refinitiv is the dominant player in this market, commanding a market share of [40-50]% worldwide. Refinitiv also benefits from high end-customer retention rates in the market for CRTDs, exceeding [90-100]% worldwide in 2018.

(1077) While rivals have emerged and compete in the market for CRTDs often on the basis of aggressive discounting (e.g., Bloomberg or ICE),[1296] it is difficult for them to challenge Refinitiv's dominance because switching CRTD providers is complex and expensive for end-customers, as explained above in Section B.1.

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provided to a question concerning desktop services (see Question 36.2, Questionnaire 8 to data vendors, Doc ID 6479).

1295 Or at least, to continue accessing them with the same latency and quality level that they enjoy today.

1296 For example, a Refinitiv internal document updated in November 2018 reports that [[details of commercial offer received by a customer from competitors]. See [internal document], Doc ID 4257-12151.

(1078) A total/partial foreclosure strategy would allow Refinitiv to strengthen its dominant position in the market for CRTDs. By engaging in a total input foreclosure strategy, the Commission estimates that the combined entity would earn an additional EUR […] in the worldwide market for CRTDs:

(a) As the majority of end-customers would add a CRTD from Refinitiv, the total spend on CRTDs worldwide would increase by EUR […].[1297] This additional income would increase the market size by [0-5]%.[1298] The entirety of this market size increase would be captured by Refinitiv.

(b) Additionally, Refinitiv's revenue would increase by income displaced from rival CRTD providers through the switching customers by approximately EUR […].[1299]

(1079) All other market circumstances being equal, this would allow Refinitiv to increase its market share in the worldwide of CRTDs by [10-20] percentage points.[1300] Currently, Refinitiv's market share amounts to [40-50]% corresponding to the Refinitiv revenue of EUR […] divided by the market size of EUR […] to EUR […]. Post-Transaction, Refinitiv's market share would become [50-60]-[60-70]%, corresponding to revenue of EUR […] divided by the increased market size of EUR […] to EUR […].

(1080) A total/partial foreclosure strategy of the combined entity which leads to the strengthening of Refinitiv's dominant position would make it even harder for rivals to compete effectively with Refinitiv. If the combined entity decided to restrict or degrade access to LSE venue data,[1301] the quality of the rival CRTDs would be

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1297 This figure corresponds to the estimated number of customers that would LSE venue data to their existing Refinitiv CRTD as calculated under letter U of Table 9, multiplied by the cost to customers of adding the data of EUR […] per customer for large customers and EUR […] for small to medium sized customers, as specified under letter G of Table 51. The resulting additional spend would amount to EUR […] based on large customers and […] for small/medium customers. These figures are weighted by [40-50]% and [50-60]% respectively based on the information on the importance in the overall revenue of large compared to medium sized and small customers in RFI 39 reply, point 30. On this basis the Commission estimates an additional spend of EUR […].

1298 EUR […] divided by the market size of between EUR […] to […] corresponds to [0-5]% to [0-5]% of the initial market size.

1299 This figure corresponds to the estimated number of customers that switch their entire CRTD needs to Refinitiv as calculated under letter V of Table 9, multiplied by the cost to customers of adding the data of EUR […] for large and EUR […] for small/medium customers, as specified under letter H of Table 9. The resulting additional revenue would amount to EUR […] based on large customers and EUR […] for small/medium customers. These figures are weighted by [40-50]% and [50-60]% respectively based on the information on the importance in the overall revenue of large compared to small/medium customers in RFI 39 reply, point 30. On this basis the Commission estimates an additional spend of EUR 165 086 443.

1300 The new Refinitiv income would amount to EUR […] plus […] from adders and […] from switchers. Divided by the market size of EUR […] to […] increased by EUR […] additional income from adders, the resulting new market shares would correspond to [50-70]% respectively of the increased market size of EUR […] to […].

1301 The impact of a total and a partial input foreclosure on the quality of the rival CRTDs is not significantly different. In a total input foreclosure scenario, the rival CRTD product is altogether deprived from access to the LSE venue data. In a partial input foreclosure scenario, the rival CRTD provider would receive the data but in a degraded manner, e.g., with higher latency. This higher latency would be detrimental to a real-time datafeed which needs to transmit data within the shortest timeframe possible. The market investigation confirms that the impact of a total and a partial input foreclosure would be materially the same. In both cases, similar percentages of end-customers will switch to or add Refinitiv's CRTD to continue having access to LSE venue data (76% of informative end-customers in a scenario of total input foreclosure and 67% in a scenario of partial input foreclosure). See Table 78 above.

compromised.[1302] In the Commission's market investigation, data vendors highlighted that LSE venue data is an important input for their CRTD offering. The vast majority of informative data vendors agree that their CRTD sales would decrease over time if LSE venue data were no longer available through their CRTD in the EEA.[1303] In an internal email exchange on 7 January 2020, preparing the answer to a request for information ("RFI") by the Commission, Refinitiv's Head of Elektron Content Product Management stated: [strategic analysis].[1304]

(1081) A total/partial foreclosure strategy regarding LSE venue data would mean that Refinitiv's competitors in the market for CRTDs would not be able to compete effectively in terms of data coverage. Based on the results of the market investigation, data coverage is the most important parameter that end-customers take into account when selecting a CRTD.[1305] Already today, Refinitiv boasts a [competitive analysis of Refinitiv] as it covers more financial instruments and exchanges with its CRTD than Bloomberg and ICE.[1306] An internal Refinitiv overview table prepared in February 2018 indicates that Refinitiv's [competitive analysis of Refinitiv] and Refinitiv is the [internal competitive analysis of Refinitiv].[1307] An internal Refinitiv presentation last updated in February 2019 notes that Refinitiv's CRTD has the [internal competitive analysis of Refinitiv].[1308] A total/partial foreclosure strategy regarding access to LSE venue data would further widen the gap in data coverage between Refinitiv and its CRTD rivals. This would prevent competitors from competing effectively in the market for CRTDs, ultimately strengthening the combined entity's dominance in this market.

(1082) In the response to the SO, the Notifying Party submits that the total number of LSE RICs that Refinitiv carries corresponds to less than [a very small percentage] of the total RICs that Refinitiv carries.[1309] According to the Notifying Party, it is not plausible to suggest that a data vendor would no longer be able to compete effectively if it were to lose less than [a very small percentage] of the data which it currently supplies to the market.

(1083) The Commission considers that, contrary to the Notifying Party's claims, the very purpose of the CRTD product is to aggregate, combine, and normalize many different types of real-time data so that they can be ingested directly by the internal applications of the end-customer. The overall quality of this product suffers when the normalized dataset it offers does not include a dataset that is important for the end-customers (including for compliance with regulatory requirements).[1310] The fact that

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1302 According to the Non-Horizontal Merger Guidelines, a merger raises competition concerns because of input foreclosure when it would lead to increased prices in the downstream market thereby significantly impeding effective competition (Non-Horizontal Merger Guidelines, paragraph 47). Throughout the Guidelines, the expression "increased prices" is used as shorthand for the various ways in which a merger may result in competitive harm, including decrease in quality of goods and services (Non-Horizontal Merger Guidelines, footnote 8).

1303 Question 50, Questionnaire 18 to data vendors, Doc ID 6468.

1304 [internal document], Doc ID 6186-6192 (emphasis added).

1305 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6480.

1306 [internal document], Doc ID 4991-14710, page 10.

1307 [internal document], Doc ID 4257-28096.

1308 [internal document], Doc ID 4794-31749.

1309 Response to the SO, Information Services, paragraph 62.

1310 In its Response to the SO, the Notifying Party submits that it does not follow that, if LSE venue data were important for end-customers, they are an important input for CRTD providers. However, in the market investigation, data vendors indicated that they redistribute the datasets that are most likely to be in demand by end-customers (Question 43, Questionnaire 18 to data vendors, Doc ID 6468). In any

a CRTD provider also carries a lot of other datasets does not undermine the importance of LSE venue data for the CRTD product.

(1084) Finally, in the response to the decision pursuant to Article 6(1)(c)[1311] and in the response to the SO,[1312] the Notifying Party argues that the proposed Transaction cannot foreclose the combined entity's rivals in CRTDs because end-customers multi-home in this market already today. The Notifying Party submits that [a significant percentage] of end-users who access LSE, Borsa Italiana, and Turquoise venue data through a datafeed under a display license multi-source this data from Refinitiv and other providers

(1085) Contrary to the Notifying Party's claim, the Commission finds that only a small minority of end-customers source LSE venue data from more than one CRTD (including Refinitiv) today. In 2019, LSEG had […] end-customers who license LSE, Borsa Italiana, and Turquoise real-time venue data and access them through a datafeed under a display license.[1313] Of these end-customers only […] (namely, [a small percentage]) accessed the data through datafeeds of Refinitiv and of another supplier. The percentage of [a significant percentage] submitted by the Notifying Party is misleading. It is weighted by the number of end-users in each end-customer that is accessing the venue data. Essentially, this percentage shows that large end-customers with more users are more likely to multi-home. But it does not reflect how widespread multi-homing is among end-customers overall.

(1086) In the response to the SO, the Notifying Party adds that already today, several multi-homing end-customers do so to access "*best in breed*" content.[1314] In the market investigation, 75% of respondents who indicate that they multi-home in CRTDs submit that they do so because they "*need to access different types of data and providers have different strengths*".[1315]

(1087) However, the fact that several end-customers indicate that already today they multi-home in CRTDs because they need different types of data does not mean that the proposed Transaction would not have an impact on effective competition in this market. *First*, as explained above, multi-homing end-customers are a small minority among end-customers that source LSE venue data through CRTDs. *Second*, as the Notifying Party acknowledges, CRTD end-customers typically multi-source for more than one reason.[1316] Among the respondents who state that they "*need to access different types of data and providers have different strengths*", 82% indicates at least one more reason for their decision to multi-home in CRTDs. *Third*, the end-customers who multi-home in CRTDs because they need to access different types of data sometimes choose one CRTD for one asset class and another CRTD for another asset class. For example, end-customer Oddo Seydler Bank SA states: "[w]*e use Refinitiv Datafeed for Equities business and Bloomberg for Fixed Income business*".[1317] End-customer INDEP AM SA adds: "[t]*he main difference [between*

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event, the Commission assessed separately the importance of LSE venue data for data vendors in recitals (926)ff. below.

1311 Response to the decision pursuant to Aerticle 6(1)(c), Information Services, paragraph 101.

1312 Response to the SO, Information Services, paragraph 64.

1313 The Notifying Party submitted this number as a proxy for the total number of end-customers who license venue data through CRTDs.

1314 Response to the SO, Information Services, paragraph 64(b).

1315 Response to the SO, Information Services, paragraph 64(b).

1316 Response to the SO, Information Services, paragraph 64(c).

1317 Question 14.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

CRTD suppliers] is in terms of relevance of the data: Bloomberg is a bond specialist while Refinitiv is more on indices, funds and equities".[1318] This practice is not comparable with the impact that a possible input foreclosure would have on the market for CRTDs, whereby end-customers would be obliged to purchase several CRTDs to ensure full coverage of one and the same asset class (i.e., equities).

C.1.2. Foreclosure of undertakings entering or expanding in the market for CRTDs

(1088) As explained in recitals (978)ff above, entry barriers into the market for CRTDs are high. Notwithstanding these high barriers, examples of recent and potential entry exist. A December 2018 Refinitiv presentation indicated that Refinitiv faces competitive constraints from new entrants in the market for CRTDs, e.g., from [competitor].[1319] In the market investigation, one data vendor respondent, McKay, submits that it is planning to launch a real-time datafeed consolidating information from different trading venues and other sources in the next two years. Today, McKay designs and operates wireless networks between data centers and transmits market data from trading venues which are located in one data center to end-customers located in a connected data center. Going forward, McKay plans to start aggregating and consolidating data from different venues and deliver it as a CRTD to end-customers, closely competing with Refinitiv's Elektron and Bloomberg's B-PIPE products.[1320]

(1089) One of the most important entry barriers in the market for CRTDs is licensing the content to be consolidated. As end-customer Société Générale puts it: "[there are t]*oo many barriers to entry (notably redistribution fees to sources/exchanges) to cope with in order to reach comprehensive coverage or at least a coverage of top 50 main exchanges*".[1321]

(1090) LSE real-time venue data is an important input for CRTDs as explained above. A total/partial input foreclosure concerning LSE venue data would make it even more difficult for players to enter or expand into the market for CRTDs than it already is today. The mere likelihood that the combined entity would carry out a foreclosure strategy post-Transaction may create a strong deterrent effect on potential entrants.[1322] As a result, a total/partial input foreclosure strategy by the combined entity would have a significant impact on effective competition, ultimately strengthening Refinitiv's dominance in CRTDs.

(1091) For example, McKay explains that its offering would be "*lower latency than the Elektron [CRTD] product that Refinitiv supplies today. To be able to offer such lower latency, McKay needs direct access to LSE's venue data*".[1323] A total or partial foreclosure strategy by the combined entity would have an impact on McKay's future plans as it would "*discourage it from making the necessary investments... As such,* [the combined entity's] *conduct would deprive customers of an alternative provider of* [CRTDs] *with a specific focus on delivering low latency data*".[1324]

1318 Question 14.1, Questionnaire 19 to information services end-customers, Doc ID 6469.
1319 [internal document], Doc ID 4991-15348, page 14.
1320 Minutes of call with McKay, 6 August 2020, paragraphs 8 and 10, Doc ID 6225.
1321 Question 30.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1322 See Non-Horizontal Merger Guidelines, paragraph 49.
1323 Minutes of call with McKay, 6 August 2020, paragraph 25, Doc ID 6225.
1324 Minutes of call with McKay, 6 August 2020, paragraph 28, Doc ID 6225.

C.2. A total/partial foreclosure would require end-customers to pay more for CRTDs to be able to access the same data

(1092) The Commission's market investigation shows that if the combined entity decided to exclude rival providers of CRTDs from access to LSE venue data, 68% of informative end-customers would purchase additional CRTDs from Refinitiv to access the data.[1325] The Commission's investigation also shows that if the combined entity decided to partially foreclose rival providers of CRTDs by degrading access to LSE venue data, 50% of informative end-customers would purchase additional CRTDs from Refinitiv to ensure fast and high-quality access to the data.[1326]

(1093) This means that a total/partial foreclosure strategy of the combined entity would require end-customers to pay more for CRTDs to be able to continue accessing the same data. This increase in the end-customer expenditure for CRTDs would come without any additional benefit compared to the way the end-customer accesses the data today.

(1094) In the market investigation, some end-customers indicate that they would not need to add an Elektron datafeed to access LSE venue data in case of total/partial foreclosure because they already have one.[1327] This is in line with Refinitiv's strong position in the market for CRTDs. However, there are also several end-customer respondents who expect to face an increase in CRTD spend if they had to add a Refinitiv CRTD to continue accessing LSE venue data.[1328] Smaller end-customers such as Virtu ITG Europe Limited and Mako Global Derivatives Partnership LLP also mention the importance of migration costs that they would incur when adding a CRTD.[1329]

(1095) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party quantifies the expenditure that end-customers would have to incur if they had to add a Refinitiv CRTD to access LSE venue data post-Transaction. The Notifying Party estimates the additional expenditure for a representative large and medium/small end-customer and found that this would amount to [a very small percentage] and [a small percentage] of the end-customer's total CRTD costs. On this basis, the Notifying Party submits that this does not constitute a material effect on the prices paid by end-customers for CRTDs.[1330]

(1096) The Commission asked follow up questions on the estimates provided by the Notifying Party[1331] and in the SO, it included updated estimates which showed that the additional expenditure could be higher for the same large and medium/small end-customer.[1332] In the response to the SO, the Notifying Party submits that an input foreclosure strategy would increase the CRTD expenditure for a large customer by [a very small percentage] and for a medium/small end-customer by [a very small

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1325 Question 24.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1326 Question 24.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

1327 Question 18, Questionnaire 19 to information services end-customers, Doc ID 6469.

1328 Question 18, Questionnaire 19 to information services end-customers, Doc ID 6469.

1329 Question 18, Questionnaire 19 to information services end-customer, Doc ID 6469. Virtu ITG Europe Limited states: "*Costs would likely exceed the pure costs imposed by LSEG/Refinitiv as we would incur additional implementation, technology and support/maintenance fees due to the overhead of having an additional provider in our infrastructure*". Mako Global Derivatives Partnership LLP states: "[d]*evelopment resource would be required to consume an additional third party data feed, this could be very impactful both in terms of costs as well as internal resourcing...*".

1330 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2.

1331 RFI 29 reply, questions 18 and 37.

1332 SO, Table 53.

percentage]. Thus, the Notifying Party concludes that a total/partial foreclosure strategy involving LSE venue data would not require end-customers to pay materially more for CRTDs.[1333]

(1097) In this regard, *first*, the Commission considers that the Notifying Party's estimates do not quantify reliably the short-term harm that end-customers would suffer because they do not capture correctly the migration costs that end-customers would have to incur when adding a CRTD. This depends on the number of internal applications that the end-customer needs to migrate; the quality of the coding for these applications, etc.[1334] Moreover, it is not possible to compare the additional CRTD cost with the current expenditure, because this last depends on the discounts provided by rival CRTD providers; whether the end-customer multi-homes; etc.

(1098) *Second*, a quantification of the short-term harm that end-customers would suffer by adding a CRTD in case of total/partial foreclosure is not necessary in the Commission's competitive assessment. For the reasons explained in Section C.1. above, the Commission concludes that the foreclosure (be it total or partial) of Refinitiv's rivals would significantly impede effective competition on the CRTD market. Separately, and as an additional element, the Commission observes that because many end-customers would have to add a CRTD post-Transaction, and thus their overall expenditure for CRTDs would increase. Quantifying this increase is not linked to the Commission's finding of a significant impediment on effective competition in the market for CRTDs, as a result of a total/input foreclosure involving LSE venue data.

(1099) In its response to the decision pursuant to Article 6(1)(c) and in its response to the SO, the Notifying Party submits that the increase in CRTD expenditure as a result of an input foreclosure strategy in LSE venue data does not amount to merger-specific harm for end-customers. An end-customer adding a Refinitiv CRTD would be doing so to retain access to LSE venue data. This is economically equivalent to an increase in the cost of maintaining access to LSE venue data to end-customers accessing the data via a rival vendor. Given its position in the upstream market for LSE venue data, LSEG could have implemented this strategy pre-merger through a price increase and yet it chose not to.[1335]

(1100) Contrary to the Notifying Party's claims, the Commission takes the view that the increase in CRTD expenditure is not equivalent to an increase in price of LSE venue data and in any event, LSEG cannot unrestrictedly increase prices for its venue data already today:

(a) The pricing of LSE venue data is subject today to regulatory requirements. As explained in recital (1048) above, venue data needs to be priced on a reasonable commercial basis when it contains transparency data, according to Article 13 MiFIR. LSEG submitted that it prices all its LSE venue data products on a reasonable commercial basis today, in line with the requirements of Article 13 MiFIR; and

(b) When adding a CRTD product, the end-customer does not simply pay more for the LSE venue data. It pays for the ability to access the LSE venue data and to

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1333 Response to the SO, Information Services, paragraph 68.

1334 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, page 23.

1335 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2 and Response to SO, Information Services, Annex 2, Venue Data VA Paper, page 3.

receive them processed in the required way (e.g., through a normalized feed that is directly ingested into internal applications in the case of a CRTD).

C.3. Market participants expect the Transaction to have a negative impact on the market for CRTDs

(1101) The market investigation confirms the Commission's assessment regarding the impact of the Transaction.

(1102) 51% of informative data vendor respondents expect the proposed Transaction to have a negative impact on the market for CRTDs, leading to higher prices; lower-quality products; and reduced innovation.[1336]

(1103) In the same vein, 49% of informative end-customer respondents expect the proposed Transaction to have a negative impact on the market for CRTDs, leading to higher prices; lower-quality products; and reduced innovation.[1337] For example, end-customer Marshall Wace LLP states: "*a requirement to add further [CRTDs] would be a retrogade step and would be detrimental to our firm (and many other buy-side firms)"*.[1338]

C.4. Efficiencies

(1104) The Commission notes the Notifying Party's argument that potential efficiencies might arise from the vertical integration of the combined entity post-Transaction. In order to substantiate efficiencies, *first*, the Commission asked the Notifying Party to submit evidence on their various efficiency claims[1339] in RFI 32. The reply to RFI 32 provides quantifications for revenue synergies, but it does not consistently show how potential synergies are passed on to consumers. The RFI 32 reply also bases its projections on assumptions for which supporting evidence is missing. The Commission takes the view that the reply to RFI 32 does not show cumulatively consumer benefits, merger-specificity and verifiability of the submitted efficiencies. The Commission thus considers that the efficiencies claimed by the Notifying Party do not meet the required standards.[1340] *Second*, the Commission notes that elimination of double marginalization was neither considered in the RFI 32 reply nor in the Parties' internal documents that quantitatively take account of efficiencies.[1341]

1336 Question 66, Questionnaire 8 to data vendors, Doc ID 6479.

1337 Question 36, Questionnaire 9 to information services end-customers, Doc ID 6480. In the Response to the SO, the Notifying Party submits that the 49% of informative end-customer respondents amounts to only 20% of all respondents because several end-customers did not respond to the question or responded "*I do not know"* (Response to SO, Information Services, paragraphs 69ff). However, the Commission cannot assume that all the end-customers who did not respond to this question or stated they do not know intended to state that they lacked any concern about the Transaction. Had that been the case, they could have chosen the corresponding answer. As a result, the Commission based its assessment on the replies of informative end-customers.

1338 Question 19, Questionnaire 19 to information services end-customers, Doc ID 6469.

1339 For example, Response to the decision pursuant to Article 6(1)(c), paragraphs 31, 195, 229, 271, 356, and 423; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, pages 15 and 17; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, page 23.

1340 The Commission recalls that, according to the Non-Horizontal Meger Guidelines, "*When assessing efficiencies in the context of non-horizontal mergers, the Commission applies the principles already set out in Section VII of the Notice on Horizontal Mergers In particular, for the Commission to take account of efficiency claims in its assessment of the merger, the efficiencies have to benefit consumers, be merger-specific and be verifiable. These conditions are cumulative.*" (Non-Horizontal Merger Guidelines, paragraph 53)

1341 See for example [internal document] Doc ID 4991-55941; [internal document] Doc ID 4794-39566; and RFI 13 reply, Annexes 12, 15, and 17.

4.5.1.3. Conclusion

(1105) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would strengthen Refinitiv's dominant position and would allow it to foreclose its existing and potential rivals in the market for CRTDs by giving the combined entity both the ability and the incentive to foreclose (partially or totally) third-party access to LSE venue data. The Commission concludes that such foreclosure (be it total or partial) would significantly impede effective competition on the CRTDs market.

4.5.2. Total/partial input foreclosure relating to LSE venue data (upstream) and desktop services (downstream)

(1106) Desktop services providers integrate and display venue data as part of their desktop solutions. The remainder of this Section focuses on the vertical relationship between real-time venue data upstream, which represent the vast majority of LSEG's revenues in the LSE venue datamarket, and comprehensive desktop services downstream.[1342]

(1107) The Notifying Party generates and commercialises real-time venue data from several trading venues that it operates, namely LSE, Borsa Italiana, EuroTLX, MTS, CurveGlobal and Turquoise. The venue data from each of these trading venues belong to a separate relevant market for the reasons explained in Section 3.11.1 above. .Refinitiv designs and licenses its desktop product Eikon (in the process of being rebranded as Refinitiv Workspace).[1343]

(1108) Total foreclosure of Refinitiv's rivals in desktop services would require the denial of access to real-time venue data from LSE. Put differently, total foreclosure would require the combined entity to become the exclusive redistributor of real-time LSE venue data at least in terms of desktop services.

(1109) Partial foreclosure of Refinitiv's competing providers in desktop services could be achieved by significantly degrading the quality of the LSE real-time venue data licensed through rivals. Quality degrading strategies that the combined entity could engage in include:

(a) Providing more timely updates on upcoming feed changes internally to Refinitiv;

(b) Regarding any changes on the LSE venue data feed, providing additional instructions internally to Refinitiv to facilitate the integration of the feed into Refinitiv's desktop service; or

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1342 See Section 3.11 above.

1343 LSEG is already vertically integrated in the sense that it generates venue data (upstream) and offers desktop services (downstream) through Mergent. Refinitiv is already vertically integrated in the sense that it generates venue data (upstream) through Tradeweb and Matching and offers desktop services (downstream). The remainder of this Section focuses on foreclosure concerning LSEG venue data and Refinitiv's desktop solutions, which is merger-specific. The horizontal overlap between Refinitiv and Mergent in desktop services worldwide or in the EEA does not give rise to an affected market as the combined share of the Parties would remain below 20%. Mergent's and Refinitiv's desktop solutions do not compete closely as respondents to the Commission's market investigation confirm (see Question 25.1, Questionnaire 8 to data vendors, Doc ID 6479 and Question 12.1, Questionnaire 9 to information services end-customers, Doc ID 6480. In particular, Mergent is a niche product focusing on US companies fundamentals, North American equities, and US corporate and municipal bond reference data.

(c) Providing better connection technology internally to Refinitiv in relation to LSEG's matching engine.

4.5.2.1. The Notifying Party's view

(1110) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to engage in total or partial input foreclosure against rivals in desktop services regarding LSEG venue data. In any event, the Notifying Party adds that any total or partial foreclosure strategy would not have a material impact on desktop services vendors or end-customers.[1344]

A. Arguments related to ability

(1111) Regarding ability to engage in total/partial input foreclosure in desktop services by restricting access to LSEG venue data, the Notifying Party puts forward the following arguments.

(1112) *First*, venue data coverage is not a primary differentiator for desktop services. Redistribution and licensing fees for venue data are consistent with venue data being a non-critical input in the downstream market. LSEG venue data redistribution fees represent less than [a very small percentage] of the total market size for desktop services.[1345] End-customer license fees for LSEG venue data represent less than [a very small percentage] of the total market size for desktop services.[1346]

(1113) *Second*, the vast majority of desktop users do not use LSEG real-time venue data. Eikon usage data from the top 200 Eikon customers indicates that LSEG's trading venues cumulatively account for [a very small percentage] of all real-time venue data supplied through Eikon globally or [a small percentage] in the EEA (based on the number of hits[1347]) and [a very small percentage] globally or [a very small percentage] in the EEA (based on the number of unique financial instruments[1348] accessed).[1349]

(1114) *Third*, only a minority of desktop users is licensed to access LSE real-time venue data. According to the Notifying Party's estimates, this would be [a small percentage] for Eikon terminals and [a small percentage] for Bloomberg terminals in the EEA.[1350]

(1115) *Fourth*, only a small percentage of end-customer respondents stated that they would switch away from their current desktop service provider if it did not offer LSEG venue data (at all or at the required level of quality/latency).[1351]

(1116) *Fifth*, regarding partial foreclosure in particular, the Notifying Party notes that based on its current infrastructure setting, it delivers real-time venue data at the same time to all customers. Any change to LSEG's existing model would require a rebuilding of LSEG's infrastructure.[1352] The Notifying Party notes that periodical infrastructure

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1344 Response to the SO, Information Services, paragraphs 75ff. and Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 153ff.

1345 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 1.

1346 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 2.

1347 The number of hits is calculated based on the total number of times data was used.

1348 The number of unique instruments refers to the number of financial instruments that were used.

1349 Form CO, paragraphs D.493ff.

1350 Form CO, paragraph D.496ff. and D.498ff. For FactSet, the Notifying Party estimated that [a very small percentage] of desktop users worldwide have access to LSE's real-time venue data.

1351 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 111 and Response to the SO, Information Services, paragraph 84.

1352 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 33-35 and 121ff.

updates take place only following advance warning and "*dress rehearsals*" with all end-customers.[1353]

B. Arguments related to incentive

(1117) Regarding incentives to engage in total/partial input foreclosure in desktop services by restricting access to LSEG venue data, the Notifying Party puts forward the following arguments.

(1118) *First*, the combined entity has every incentive to ensure wide distribution for its venue data. The more widely LSEG venue data is distributed, the more it will attract traders to LSEG's trading venues. Total foreclosure of LSEG venue data could lead to shift of liquidity from LSEG's venues to other trading venues.[1354]

(1119) *Second*, Tradeweb's decision to distribute its venue data exclusively through Refinitiv cannot be taken as an indication that the combined entity would have similar incentives to make Refinitiv the sole distributor of LSEG venue data.[1355] AGCM's investigation into Borsa Italiana does not show that the combined entity would have an incentive to engage in foreclosure in desktop services post-Transaction.[1356]

(1120) *Third*, there is no incentive for the combined entity to try to capture more of the data spend of end-customers who already multi-home using several desktop services. Customers pay a set monthly subscription fees for the right to use Refinitiv desktops.[1357]

(1121) *Fourth*, any strategy that results in end-customers adding Refinitiv desktop services while maintaining existing rival products does not change the competitive dynamics in the downstream market. Such a strategy does not involve a true recapture of economic profit in the market for desktop services and as such, it cannot contribute to merger-specific incentives to engage in foreclosure.[1358]

(1122) *Fifth*, it is implausible that the combined entity would interfere with customers' ability to access LSEG venue data through rival providers. In this case, according to the Notifying Party, the costs in the form of customer retaliation and possible regulatory reaction would be too great.[1359]

C. Arguments related to impact

(1123) Regarding the impact on the market for desktop services of a total/partial input foreclosure strategy involving LSEG venue data, the Notifying Party puts forward the following arguments.

(1124) *First*, the Transaction would not increase the costs of end-customers and in any event such a cost increase could not result in a significant impediment on effective competition. Even if the end-customer costs rose, the overall effect of any foreclosure strategy on the end-customer spend for desktop services would be around

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1353 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 36 and Reply to RFI 29, question 10.

1354 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 128.

1355 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 47 and 135 and Response to the SO, Information Services, paragraph 103.

1356 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 58ff and Response to the SO, Information Services, paragraph 107.

1357 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 138-139.

1358 Response to the decision pursuant to Article 6(1)(c), Information services, Annex 2, pages 2 and 11ff.

1359 Form CO, paragraph D.490.

[a very small percentage] (focusing on end-customers who license LSEG venue data) and [a very small percentage] (looking at the entirety of the market for desktop services).[1360]

(1125) *Second*, competitors (including smaller rivals) would not be harmed in the short or longer term by a possible total/partial foreclosure strategy. The majority of end-customers indicated that they would not switch away from their current provider of desktop services, even if it stopped offering LSEG venue data. Even in the hypothetical scenario where such a strategy could exclude smaller rivals, there would be sufficient credible competition in the market for desktop services, in particular, from Bloomberg.[1361]

(1126) *Third*, given that absent the Transaction no entry is anticipated in the next three years in the market for desktop services, the prospects of entry in this market cannot be negatively impacted by a total/partial foreclosure strategy.[1362]

4.5.2.2. The Commission's assessment

(1127) The remainder of this Section focuses on LSE real-time venue data, which represent the majority of LSEG's revenues from venue data.[1363]

A. Ability to engage in total/partial input foreclosure

(1128) The Commission *considers* that the combined entity has the ability to engage in total/partial input foreclosure strategies in the market for desktop services involving LSE venue data. The remainder of this Section explains the reasons underlying the Commission's conclusion, by highlighting that venue data in general and LSE venue data in particular are an important input for desktop services, that the Notifying Party has market power in relation to LSE venue data and that the combined entity would have the ability to foreclose rivals in desktop services also through technical degradation of access to LSE venue data.

A.1. Venue data (including LSE venue data) is an important input for desktop services

(1129) Desktop services contain different types of financial data content, analytics, and workflow functionalities. Content is the basis for the [internal strategic analysis] and the element with the [internal strategic analysis] *(*[internal strategic analysis]*)* as shown in Figure 16 below, an excerpt from a Refinitiv internal document dated April 2019 and discussing desktop services strategy.[1364] Content is also a [internal strategic analysis] for Refinitiv's desktop both today and in the future according to the same Figure.

Figure 16

[…]

Source: [internal document], Doc ID 4151-10198, page 7.

(1130) The results of the Commission's market investigation confirm this. "*Data coverage*" is the most important parameter that end-customers take into account when selecting desktop services.[1365] In the same vein, an Exane BNPP survey found that [product

1360 Response to the decision pursuant to Article 6(1)(c), Information services, Annex 2, page 20.
1361 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 157ff.
1362 Response to the decision pursuant to Article 6(1)(c), Information services, paragraph 162.
1363 See Form CO, Information Services Chapter, Table 12.
1364 [internal document], Doc ID 4151-10198, page 7.
1365 Question 8, Questionnaire 9 to information services end-customer, Doc ID 6480.

information] that a [product information] is considered as one of the most important features of a terminal (together with [product information] and [product information]).[1366]

(1131) Real-time venue data is one of the key types of content that a desktop service carries. As data vendor Moody's puts it, in relation to Refinitiv's Eikon: "[w]*hile Eikon also supports reference, fundamental, and other non-real-time data and models, the core of the offering starts with its real-time low latency footprint*".[1367] Another data vendor, FactSet, identifies "*access to the necessary market data*" as one of the extremely high "*upfront costs [required] to produce a competitive product*" in the desktop services market.[1368]

(1132) In its response to the decision pursuant to Article 6(1)(c) and in its response to the SO, the Notifying Party counter-argued that venue data as a category of data is an important input for desktop services but this does not mean that a desktop provider needs access to data from *each* venue or from a *specific* venue to compete effectively.[1369]

(1133) However, the results of the market investigation and Refinitiv's internal documents contradict the argument of the Notifying Party.

(1134) *First*, access to data from *key* regulated venues (including LSE) is critical for on-trading floor customers. These customers account for the highest share of revenues in the market for desktop services.[1370] Under Article 27 MiFID II, on-trading floor customers are subject to best execution requirements. This means that they must access data from several trading venues before executing a trade to ensure that they achieve the best possible result for their clients.[1371] End-customers in the market investigation and internal Refinitiv documents confirm this, as discussed in recitals (910)ff above.

(1135) *Second*, access to data from a *specific* venue on an exclusive basis is a significant source of product differentiation for the downstream market of desktop services. In an internal document summarising its [strategy regarding desktop solutions] plan in 2018, Refinitiv stated: […].[1372] Publicising its Eikon desktop offering, Refinitiv often refers to the venue data that it makes available on an exclusive basis. In October 2019, a Refinitiv employee stated that "*the [Eikon] platform... offers traders to view prices from different multilateral trading facilities [venues]. This exclusive dataset is unique in the fixed income market*".[1373] As regards the data from Refinitiv's [product description], an internal document identified a future opportunity in […].[1374] Similar comments are made in internal Refinitiv documents […]. An Oliver Wyman strategy document prepared exclusively for Refinitiv states: [ICE's desk top service].[1375]

1366 [internal document], Doc ID 4188-77255, Figure 25.

1367 Question 9, Questionnaire 8 to data vendors, Doc ID 6479.

1368 Question 31.1, Questionnaire 8 to data vendors, Doc ID 6479.

1369 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 106ff and Response to the SO, Information Services, paragraphs 78ff.

1370 Form CO, Annex 207 (as updated in RFI 13, question 28). See also Figure 28 below.

1371 Article 27(1) recast MiFID: "*Member States shall require that investment firms take all sufficient steps to obtain, when executing orders, the best possible result for their clients taking into account price, costs, speed, likelihood of execution and settlement, size, nature or any other consideration relevant to the execution of the order*".

1372 Form CO, Information Services, Annex 287 – Document 11, 3 July 2018, page 3.

1373 See https://www.fi-desk.com/fixed-income-trading/ (last accessed on 1 September 2020).

1374 [internal document], Doc ID 4794-604, page 10.

1375 [internal document], Doc ID 4992-56, page 10.

Further, exclusive distribution of Tradeweb venue data is a critical driver for sales of Eikon desktop service, as described in recitals (1188)ff. The existing competitive disadvantage of rivals from the lack of this content would be further exacerbated with the exclusion of a key venue like LSE.

A.2. LSE venue data are an important input to desktop services

(1136) LSE venue data is an important input for the downstream market of desktop services, both from the perspective of end-customers and from the perspective of data vendors who compete in this market.

(1137) Contrary to the claims of the Notifying Party, the fact that LSE venue data fees represent only a low percentage of the total market size of desktop services does not contradict this. As explained in recital (915) above, an input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product. This is the case for the vertical link between LSE venue data and desktop services for the reasons detailed below.

(1138) The market investigation confirms that LSE venue data is an important input for the downstream market of desktop services from the perspective of the end-customers. *First*, LSE is an important input for the operations of end-customers (in particular for end-customers based in the EEA). *Second*, it is difficult for end-customers to switch away from LSE venue data as there are no directly substitutable datasets and in any event, the procedure of switching would be timely and costly. *Third*, the availability of LSE venue data is one of the important parameters that end-customers take into account when selecting desktop services. Each of these reasons are discussed in more detail below.

LSE is an important input for the end-customer's operations

(1139) In the market investigation, the majority of informative end-customer respondents submit that they license real-time display data from an LSEG venue (namely, data that can be delivered through a desktop service).[1376] As explained in recital (917) above, the majority of informative end-customers also identify LSE as a venue whose data is "must-have" for their company's operations in the EEA regarding equities.[1377] As end-customer Société Générale puts it, "*regulated markets such as* [LSE] *are essential infrastructures for financial markets and access to their real-time data across consolidated real time feed and desktops solutions is... also essential for financial markets*."[1378]

(1140) Moreover, all data vendors identify LSE among the top three venues in the EEA in equities, whose data is licensed by most end-customers.[1379] 3 out of 4 of the data vendors providing informative responses in the market investigation identified LSE as the number one venue in the EEA, whose data is licensed by most end-customers regarding equities.[1380]

1376 Question 102, Questionnaire 9 to information services end-customers, Doc ID 6480.
1377 Question 108, Questionnaire 9 to information services end-customers, Doc ID 6480.
1378 Question 20.4, Questionnaire 19 to information services end-customers, Doc ID 6469.
1379 Question 168, Questionnaire 8 to data vendors, Doc ID 6479.
1380 Question 168, Questionnaire 8 to data vendors, Doc ID 6479.

Switching away from LSE venue data is difficult for end-customers

(1141) According to the Non-Horizontal Merger Guidelines, an input may be important when the cost of switching to alternative inputs is relatively high.[1381] For the reasons explained in recitals (919)ff above, this is exactly the case with LSE venue data.

LSE venue data is an important parameter for end-customers selecting desktop services

(1142) In the market investigation, 69% of informative end-customer respondents indicate that access to LSEG venue data is important, if not essential or the most important parameter when selecting a desktop service provider.[1382] Indeed, 24% of informative end-customers submit that access to LSEG venue data is "*essential*" in that they would "*not consider any desktop solution provider who do not provide access to LSEG venue data*". A further 15% consider it "*one of the most important elements*" that they take into consideration, and 29% say it "*is an important element for us, but it is not among the most important elements*". Only 31% selected "*it is not an important element for us*."[1383] End-customer FinecoBank states: "[w]*e do not envisage any European Desktop solutions provider to not include LSEG group venue data (unless there is a reason to do so)*".[1384] End-customer Citadel Enterprise Americas LLS adds: "[f]*or any investment processes where it is relevant, LSEG data would have to be part of the desktop solution*".[1385] According to data vendor FactSet, "*without the venue data in your desktop solution, the solution is effectively worthless to on-trading floor customers... [LSE, Borsa] Italiana, and Turquoise are large trading centers and are very important to the trading world*".[1386]

(1143) The Notifying Party highlights that the majority of end-customer respondents would not switch away from their current desktop service provider even if it did not offer LSE venue data (at all or at the required level of quality/latency).[1387] However, as shown in Table 79 below, 71% of the informative end-customers indicated that they would take action to continue having access to LSE venue data. Indeed, 71% of informative end-customers submitted that in case LSE venue data was no longer available through their desktop service, they would either switch completely to Refinitiv (16%) or they would add Refinitiv terminals in their organisation (55%). 55% would do the same if access to LSE venue data through their desktop service became slower or of lower quality.

1381 Non-Horizontal Merger Guidelines, [2008] C265/5, paragraph 34.

1382 Question 20.1, Questionnaire 19 to information services end-customers, Doc ID 6469. In its Response to the SO, the Notifying Party submits that it does not follow that, if LSE venue data were important for end-customers, they are an important input for CRTD providers. However, in the market investigation, data vendors indicate that they redistribute the datasets that are most likely to be in demand by end-customers (Question 8, Questionnaire 18 to data vendors, Doc ID 6468). In any event, the Commission assessed separately the importance of LSE venue data for data vendors in recitals (1149)ff. below.

1383 Question 20.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1384 Question 20.1.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1385 Question 20.1.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1386 Question 14, Questionnaire 18 to data vendors, Doc ID 6468.

1387 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraph 111 and Response to the SO, Information Services, paragraph 84.

Table 79

Upstream Market	Downstream Market	Type of Input Foreclosure	Percentage of End-customers...[1388]		
			... switching to Refinitiv desktop services	... adding Refinitiv desktop services[1389]	... only keeping their existing desktop service provider[1390]
LSE Venue Data	Desktop Services	Full[1391]	16%	55%	29%
		Partial[1392]	22%	33%	45%

Source: Question 21, Questionnaire 19 to information services end-customers.

(1144) Table 79 above shows that the majority of end-customers would react driven by the need to continue licensing LSE venue data. The fact that the end-customer will keep its existing desktop (e.g., because it is difficult to switch altogether) does not mean that the combined entity would not have the ability to foreclose competitors.

(1145) Foreclosure exists even if the foreclosed rivals are not forced to exit the market. It is sufficient that the rivals are disadvantaged by the reduction of the quality of their products resulting from not being able to carry a dataset that represents an important input.[1393] This obliges Refinitiv's competitors to compete less effectively in desktop services post-Transaction. With no or limited access to LSE venue data, they would not be able to serve the end-customers in the same way as they did before the foreclosure, given that content is the most important component of desktop services. As a result, they would be led to compete less effectively. The fact that the combined entity can force rivals to compete less effectively in the downstream market shows that it has the ability to foreclose.

(1146) The Notifying Party also argues that the vast majority of desktop users do not use LSE real-time venue data.[1394] Even if it may be true that LSE venue data is accessed only by a few desktop service users today,[1395] the value of LSE venue data cannot be measured by the number of users accessing. Rather, the market investigation

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1388 Estimated based on informative end-customers (i.e., excluding all respondents who selected "Other", unless their reply could not be categorized to one or more of the options provided).

1389 The Commission notes that the classification of end-customers "*adding Refinitiv desktop*" conservatively includes most likely also end-users that are in fact switching (instead of adding) their provider of desktop services because, first, end-customers would be classified as adding Refinitiv desktop when, as a reply to total foreclosure of LSEG data, they answered that they "[…] *would source (London Stock Exchange venue data/FTSE Russell UK equity indices/SEDOLs) from Refinitiv desktop solutions, but would otherwise continue using our existing desktop solutions from rivals as normal*." (see Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469). This answer provides information of switching/adding of desktop service providers on the firm level of the end-customer. Second, some end-customers use multiple desktops services' providers for different purposes, in different departments of their organization (e.g., see Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, fn. 22), or for different end-users/employees as submitted by the Notifying Party (e.g., see "Assessing incentives for total foreclosure 'in-the-round'", 11 September 20, paragraph 24). Since the respondents to the questionnaires replied to questions about their firms' usage of desktops the above mentioned answer of adders most likely includes switching end-users of desktop services.

1390 Without adding any other product, thus accepting slower/lower-quality access to the LSE venue data.

1391 Question 21.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1392 Question 21.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

1393 Non-Horizontal Merger Guidelines, paragraph 29.

1394 Form CO, paragraphs D.493ff.

1395 See recital (925)above.

demonstrated that the possibility to license the data (namely, the availability to access and use) is valued by end-customers when selecting a desktop service product, outside of whether they currently intend to license this data. 75% of informative data vendors take the view that "*the possibility to access a venue dataset is important for customers of desktop solutions even if they do not use this venue data set today*".[1396] This is congruent with the finding discussed above that end-customers value breadth of data above all other considerations when selecting desktop services providers. Further, the majority of informative data vendor respondents submit that end-customers would not choose to purchase a desktop solution by a rival of Refinitiv if they knew that there is no possibility to access LSE venue data through this rival desktop solution.[1397] Data vendor IRESS explains: "[c]*ustomers look for vendors that can scale as their business grows, and may not sign up with a vendor that has limited data coverage in a particular asset class*".[1398]

(1147) The importance of LSE real-time venue data as an input to desktop services is not diminished by the fact that it represents only a small percentage of the total venue data that Eikon end-customers use. This percentage is small because end-customers use several different sources of venue data both for on- and off-trading floor uses. The Commission notes that the percentage of Eikon end-customers using LSEG venue data[1399] should be considered in context, taking into account also the percentage of end-customers using venue data from other, major exchanges in the EEA and worldwide.

(1148) Table 80 below shows that LSEG venue data is used approximately as often as data from other major venues worldwide and in the EEA. The fact that this use represents [5-10]% or less of the total real-time venue data supplied through Eikon simply reflects that end-customers need venue data from many different sources (among other reasons, to comply with best execution requirements). It does not undermine the conclusion of the market investigation that LSE venue data is a "must-have" among all these sources.

Table 80

Percentage of real-time venue data usage supplied through Eikon (Top 200 customers) WW and in the EEA					
Top 200 Eikon customers WW					
	LSEG	**ICE**	**CME**	**Deutsche Börse**	**Nasdaq**
Hits	[0-5]%	[5-10]%	[0-5]%	[0-5]%	[5-10]%
Unique Instruments	[0-5]%	[10-20]%	[5-10]%	[5-10]%	[5-10]%
Top 200 Eikon customers in EEA					
	LSEG	**ICE**	**CME**	**Deutsche Börse**	**Nasdaq**
Hits	[5-10]%	[5-10]%	[5-10]%	[5-10]%	[5-10]%
Unique Instruments	[0-5]%	[10-20]%	[0-5]%	[10-20]%	[0-5]%

Source: Form CO, Information Services, Table 90.

1396 Question 17, Questionnaire 18 to data vendors, Doc ID 6468.

1397 Question 18, Questionnaire 18 to data vendors, Doc ID 6468.

1398 Question 171, Questionnaire 8 to data vendors, Doc ID 6479. In the same vein, IRESS adds: "*While Iress does not carry MTS data today, this may be a buying factor decision to not take an iress product if the customers knew that it was only exclusively available via Refinitiv*" (see Question 18.5, Questionnaire 18 to data vendors, Doc ID 6468).

1399 The majority of the Notifying Party's revenues from LSEG venue data comes from LSE venue data. See Form CO, Information Services, Annex 12.

LSE venue data is an important input for data vendors offering desktop services

(1149) All data vendor respondents identify LSE as the number one venue in the EEA, whose data is carried by the most data vendors in equities.[1400] LSE's venue data is carried by Refinitiv, Bloomberg, ICE, FactSet, IHS Markit, and at least 24 other providers of desktop services.[1401] The Commission asked the Notifying Party to specify which data vendors carry LSE venue data on their desktop services. The Notifying Party provided the information for data vendors representing 72-79% of the worldwide market.[1402] Of the data vendors for which information is available, a very large proportion (86-87%) currently carry LSE venue data.

(1150) During the market investigation, data vendors highlighted that LSE venue data is an important input for their desktop service offering. The vast majority of data vendors who offer today LSE venue data through their desktop services agree that their sales would decrease if LSE venue data were no longer available through their desktops in the EEA.[1403] For example:

(a) According to IRESS, "*... LSE [venue data] are an essential part of our... desktop offering... Our desktop customer base is focused on servicing UK customers trading UK listed securities. Without LSE... data providing the bulk of liquidity for these securities, there would be no Iress product, and no financial markets business in the UK*".[1404]

(b) According to IHS Markit, "*venue data from the Parties plays a significant role in a number of our product offerings*".[1405]

(c) Referring to LSEG's venue data, FactSet notes: "[w]*ithout access to these vital, natural monopoly datasets, FactSet would no longer be able to offer a competitive solution to address basic customer requirements. There are no alternatives to LSEG's venue data and this data is critical for a majority of FactSet's customer base*."[1406]

(d) Finally, Morningstar states that LSEG venue data "*is fundamental to the venue data that Morningstar distributes to its customer and* [an] *increase in pricing would impact the ability to effectively compete in the market*".[1407]

(1151) Moreover, the data vendors that are more often cited as close competitors of Refinitiv in the desktop services do carry LSE venue data. During the market investigation, the most commonly named Top 5 desktop service providers in the EEA were (in order) Bloomberg, Refinitiv, FactSet, S&P and Morningstar. As for the closest competitors to Refinitiv, aside from Bloomberg (named by 98% of informative respondents), FactSet and S&P were named by several respondents (26% and 7% respectively).[1408]

(1152) Finally, in its market investigation, the Commission has not identified effective and timely counter-strategies that desktop service providers could deploy in case of input

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1400 Question 170, Questionnaire 8 to data vendors, Doc ID 6479.
1401 Form CO, Information Services, Annex 292.
1402 See Form CO, Information Services, Annex 200 and Annex 292. The Notifying Party was not able to give a detailed breakdown of the remaining part of the market.
1403 Question 19, Questionnaire 18 to data vendors, Doc ID 6468.
1404 Question 171, Questionnaire 8 to data vendors, Doc ID 6479.
1405 Question 171, Questionnaire 8 to data vendors, Doc ID 6479.
1406 Question 174.1, Questionnaire 8 to data vendors, Doc ID 6479.
1407 Question 16.2, Questionnaire 18 to data vendors, Doc ID 6468.
1408 Question 8, Questionnaire 9 to information services end-customer, Doc ID 6480.

foreclosure by LSEG concerning LSE venue data. For the reasons explained above, there is no possibility for desktop service providers to be less reliant on LSE venue data (especially when these are important for end-customers). Sponsoring entry in the upstream market is also not possible, given that LSEG has a natural monopoly on the provision of LSE venue data for the reasons explained in Section A.3 below. In the market investigation, competing data vendors did not indicate any potential retaliatory actions or the presence of leverage that they could use in the face of such a strategy.[1409]

(1153) In the response to the decision pursuant to Article 6(1)(c), the Notifying Party submits that LSEG venue data represent a diminutive proportion of the cost of desktop services today. The Notifying Party estimates that (i) LSEG venue data redistribution fees represent less than [a very small percentage] of the total market size for desktop services[1410] and (ii) end-customer license fees for LSEG venue data represent less than [a very small percentage] of the total market size for desktop services.[1411]

(1154) However, an input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product. For all the reasons explained in this Section, the Commission considers that the fact that LSE venue data redistribution fees and end-customer licence fees represent a small input cost is not indicative of the importance that this data has in the desktop services market.[1412]

A.3. LSEG has a significant degree of market power in LSE venue data

(1155) For the reasons set out in recitals (936)ff above, the Commission takes the view that LSEG has a significant degree of power in the market for LSE venue data. LSEG has a "natural" monopoly in this market, which is evidenced by the company's licensing behaviour vis-a-vis its end-customers in recent years.

1409 Question 174, Questionnaire 8 to data vendors, Doc ID 6479.

1410 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 1.

1411 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, Figure 2.

1412 The Commission notes that although LSE venue data is an important input for desktop services, LSE venue data licence fees represent only a limited share of the total desktop service price. As such, the Commission considers that the combined entity would not have the ability to engage in price-based partial foreclosure in the market for desktop services, by increasing the price of LSE venue data to rivals. Assuming that LSE venue data redistribution fees represent [a very small percentage] of the cost of a desktop service, a price increase of [a very high percentage] would be needed to increase downstream prices by 10% (even if fully passed through). In the same vein, assuming that LSE venue data end-customer licence fees represent [a very small percentage] of the cost of a desktop service, a price increase of [a very high percentage] would be needed to increase downstream prices by 10% (even if fully passed through). However, price increases of this magnitude would no longer qualify as price-based partial foreclosure but rather amount to a total input foreclosure strategy (as the Notifying Party acknowledged in Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, page 6). The Commission also notes that it is unlikely that the combined entity would have the incentive to engage in a price-based partial foreclosure in desktop services, by restricting access to LSE venue data. In the market investigation, the majority of informative end-customer respondents indicates that they would stick to their existing desktop service provider, if the combined entity increased the price of LSE venue data. See Question 21.2, Questionnaire 19 to information services end-customers, Doc ID 6469. The remainder of this Section thus focuses on total input foreclosure and technical partial foreclosure (but not price-based partial foreclosure).

A.3.1. LSEG has a natural monopoly in the market of LSE venue data

(1156) LSEG has a monopoly over the LSE venue data as it is the only entity that can offer data generated from the trading activity in this venue. Datasets from different venues are not substitutable.[1413]

(1157) The market investigation confirmed that there are no alternative venue datasets that would be substitutable with LSE venue data. 72% of informative end-customers reply that there are no "*alternative venue data in the EEA that [could] replace the venue data that* [LSE] *offer*[s]".[1414] The vast majority of data vendor respondents confirm this finding. 86% of them state that there are no "*alternative venue data that customers in the EEA use or could use to replace the venue data that* [LSE] *offer*[s]".[1415] As data vendor FactSet puts it, "[t]*here are no alternatives to a vast majority of data licensed from LSEG, and this data is critical for a majority of* [our] *customer base...*".[1416] Another data vendor, S&P, confirms: "*no alternative for LSE venue data*".[1417]

A.3.2. Licensing behaviour regarding LSE venue data reflects LSEG's market power

(1158) For the reasons set out in recitals (939)ff above, LSEG's licensing behaviour confirms that the Notifying Party enjoys significant power in the market for LSE venue data.

A.4. LSEG has the ability to engage in partial input foreclosure of LSE venue data based on technical degradation

(1159) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argues that it would not be able to technically degrade or delay the access of rival desktop providers in LSE venue data "*without making significant infrastructural changes*".[1418]

(1160) However, for the reasons explained in recitals (945)ff above, the Commission considers that the combined entity does have the ability to engage in partial input foreclosure regarding LSE venue data. The current infrastructure setting of LSEG might disseminate LSE venue data information to everyone at the same time, but this can be changed rapidly and with minimal costs.

(1161) In the market investigation, data vendor Bloomberg confirms that the combined entity could follow various strategies of partial input foreclosure through latency/quality degradation. According to Bloomberg, "[t]*he non-price strategies that LSEG could adopt include: (a) Providing more timely updates on upcoming feed changes to Eikon; (b) Providing additional instructions for implementing the changes to Eikon; (c) Providing better technology for the connection to Eikon in relation to LSEG's matching engine; (d) Applying operational or technology changes to enhance interoperability with Eikon by creating a market data policy to align its controls and technologies with those of Eikon*".[1419] None of the data vendor

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1413 See Section 3.11 above.
1414 Question 105, Questionnaire 9 to information services end-customers, Doc ID 6480.
1415 Question 164, Questionnaire 8 to data vendors, Doc ID 6479.
1416 Question 36.1, Questionnaire 8 to data vendors, Doc ID 6479.
1417 Question 36.1, Questionnaire 8 to data vendors, Doc ID 6479.
1418 Response to the decision pursuant to Article 6(1)(c), paragraphs 121ff..
1419 Question 36.2, Questionnaire 8 to data vendors, Doc ID 6479.

respondents take the view that partial foreclosure through quality/latency degradation would be technologically impossible.[1420]

B. Incentive to engage in total/partial input foreclosure

(1162) The Commission considers that the combined entity would have the incentive to engage in a total/partial input foreclosure strategy against desktop rivals by restricting access to LSE real-time venue data. Such a strategy in the short term would increase Refinitiv's footprint in the downstream market as the majority of end-customers would switch to or add a Refinitiv desktop service to be able to continue accessing LSE real-time venue data.[1421] In the long term, a total/partial foreclosure strategy would allow the combined entity to exclude smaller rivals and new entrants.[1422]

B.1. Total foreclosure

(1163) This Section shows that the combined entity would have the incentive to engage in total foreclosure in desktop services, regarding LSE real-time venue data. Such a strategy would be profitable based on the Commission's economic analysis; there are already examples of similar strategies in the market, by Refinitiv and its competitors; and finally, internal documents show that Refinitiv seems to have [Refinitiv's internal strategy].

B.1.1. A total foreclosure strategy would be profitable

(1164) The combined entity will have an incentive to engage in an input foreclosure strategy if doing so proves profitable. The strategy would be profitable for the combined entity if the profit lost in the upstream market (namely, the revenues from the licensing fees of LSE real-time venue data) were smaller than the profit gained in the downstream market from increased sales of Refinitiv desktop services.

(1165) The Commission's economic analysis shows that the combined entity will likely have the incentive to engage in total input foreclosure in the market for desktop services by restricting access to LSE venue data.

Switching Rates

(1166) To assess the possible effects of the Transaction on the relevant market for desktop services, the Commission (among other investigative steps) addressed questionnaires to end-customers who are using these services. These questionnaires were based on Article 11(2) of the Merger Regulation. In the context of these questionnaires, the Commission asked end-customers how they would react in case the combined entity discontinued access to LSE venue data through rival desktop services or in case the combined entity degraded such access. Based on the replies of end-customers, the Commission estimated in case of total or partial technical foreclosure: (i) the percentage of end-customers who would switch to Refinitiv desktop services; (ii) the percentage of end-customers who would add Refinitiv desktop services; and (iii) the percentage of end-customers who would take no action and would only keep their existing desktop service provider.

(1167) As explained in recitals (987)ff. above, the Commission uses these percentages (namely, the switching rates) in its calculations aiming to quantify the Notifying

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1420 Question 36.2, Questionnaire 8 to data vendors, Doc ID 6479.

1421 See Question 21, Questionnaire 19 to information services end-customers Doc ID 6469.

1422 Section C below discusses in more detail the impact of a total/partial foreclosure strategy by the combined entity in the market for desktop services and involving LSE real-time venue data.

Party's incentives to pursue a total input foreclosure strategy in desktop services, by restricting access to LSE venue data.

(1168) As explained in recitals (987)ff. above, the Commission sent questionnaires to information services end-customers twice during its market investigation: once during Phase I (in May 2020) and once during Phase II (in August 2020). The first questionnaire was sent to 1 004 addressees. The second questionnaire was sent to 978 addressees. The contact details of the addressees were provided by the Notifying Party and supplemented (where relevant) by the details in the Commission's files.[1423]

(1169) In its response to the SO, the Notifying Party claims that these switching rates are not reliable to inform the Commission's calculations on the combined entity's incentive to engage in foreclosure.[1424] The Notifying Party took issue with the content of the questionnaires and the options provided to the respondents who were asked how they would react e.g., in the market for desktop services if access to LSE venue data were restricted. For the reasons explained in recitals (987)ff. above, the Commission takes the view that the Notifying Party's claims on the content of the questionnaires should be rejected.

(1170) In its response to the SO, the Notifying Party also argues that the sample of end-customers on which the switching rates are based is too limited and in any event not representative of all types of end-customers.[1425]

(1171) Contrary to the Notifying Party's claims, the Commission notes that for the calculation of the switching rates concerning the vertical overlap between LSE venue data (upstream) and desktop services (downstream), the Commission took into account the answers of 53 informative respondents.[1426] In recitals (987)ff. above, the Commission explains in detail that the questionnaire was addressed to a large number of end-customer respondents from different groups (in terms of revenue, business segment customer tier); that sensitivity analysis checks were conducted on the Commission's calculations based on subsets of the end-customers respondents; and that "hypothetical bias" is unlikely among sophisticated enterprise respondents.

(1172) For all these reasons, in its calculations in the remainder of this Section, the Commission relies on the switching rates established in the market investigation, absent any other evidence on switching rates available in this case (including from the Notifying Party).

Profits potentially lost upstream

(1173) For the calculation of the profits potentially lost upstream, the Commission proceeds as follows. *First*, the Commission takes the revenue from real-time venue data sales from LSE distributed though desktop solutions, which amounted to GBP […] in 2019 according to the Notifying Party.[1427] *Second*, in order to approximate incremental profits, the Commission deducts from the revenue the cost of sales for the venue data business segment of LSE, estimated based on the gross profit margin of the data business segment. Cost of sales are by nature variable costs. Theoretically, additional variable costs could be accounted for, such as operating

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1423 See discussion below and M.9564_IS_Annex_209_Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

1424 Response to the SO, Information Services, Annex 1.

1425 Response to the SO, Information Services, Annex 1.

1426 Question 24.1, Questionnaire 19 to information services end-customers.

1427 RFI 29 reply, paragraph 65

expenses, if rationalised. However, the Commission takes a conservative approach by deducting from the upstream revenues only the cost of sales. The profits lost upstream are thus potentially overestimated (but not underestimated) compared to a scenario where a broader variable cost base were to be deducted from the upstream revenues to determine the profits from real-time LSE venue data. Based on these calculations, the Commission finds that the resulting profit margin for real-time LSE venue data was [a very high percentage] in 2019.[1428] Converted into EUR,[1429] the upstream profits from real-time LSE venue data corresponded to EUR […] in 2019.

Profits gained downstream

(1174) In case of an input foreclosure strategy, the profits potentially gained downstream are twofold. *First*, profits are generated through additional sales of desktop services (to end-customers who would be switching away from their existing provider or from end-customers who would add Refinitiv desktop services). *Second*, further profits are generated from the administrative fee charged to end-customers on the revenue from sales of data channelled through Refinitiv desktop services. There would be no additional costs for LSEG from adding Refinitiv as a distribution channel, since LSE venue data is already offered through Refinitiv desktop solutions.

(1175) The Notifying Party considers that the revenue potentially gained by Refinitiv is higher in case end-customers switch their whole demand in terms of desktop solutions to Refinitiv as a result of a foreclosure strategy than in case end-customers add a Refinitiv terminal to their set of existing desktop data solutions.[1430] The Commission accepts that customers switching all their desktop service requirements from their existing desktop provider to Refinitiv would incur a higher price per year than customers adding only a Refinitiv desktop service to continue accessing LSE real-time data.

(1176) Although Eikon is not the only desktop solution offered by Refinitiv, it is the solution offered to new customers.[1431] Other desktop solutions such as Thomson One terminals are no longer offered to new customers and existing customers are being migrated to Eikon desktops solutions[1432]. Therefore, only Eikon revenues are relevant for the estimation of the revenue deriving from switching customers in the future. The Commission further notes, that exactly the above described product differentiation by Refinitiv, for example in different Eikon variants, allows the Notifying Party to better differentiate customers and thus generate profits closer to the monopoly profit post-merger.[1433]

(1177) The Commission does not agree with the figures provided by the Notifying Party to estimate the yearly cost end-customers would incur when adding a Refinitiv desktop.

1428 Form CO, Information Services, Annex 122.

1429 Converted based on ECB average exchange rate GBP/EUR for 2019 (0.8777).

1430 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 6, footnote 12.

1431 Some of the customer of legacy products, such 120 000 Thomson One customers are planned to migrate to Eikon Premium ("M.9564_LSEG_5.4_210" submitted on 209 June 2020, page 122 and page 123), which would significantly increase the actual number of and revenue generated with Eikon users (compare [internal document] Doc ID 4794-54228 and [internal document] Doc ID 4794-09634).

1432 Refinitiv is commercializing different desktop terminals, such as Eikon, 'Thomson One Wealth Management' and 'Thomson One Banking'. However 'Thomson One Wealth Management' and 'Thomson One Banking' will no longer be offered by Refinitiv and clients will be offered Eikon desktop services instead. Products that are no longer offered to new customers but are still used based on subscriptions concluded in the past are referred to as legacy products.

1433 See also assessment in Section 4.5.1 above.

The Notifying Party's estimate of EUR […] yearly[1434] corresponds to EUR […] per month, which is lower than the price of EUR […] per month for the most reduced version of Eikon providing LSE venue data for front office users as presented by the Notifying Party in the Form CO.[1435] The Commission cannot accept the price of the lowest price Eikon with access to LSE venue data because there is no guarantee that LSEG data will be offered on the lower priced Eikon versions post-merger.

(1178) Further, [description of Refinitive strategy][1436] and [description of Refinitive strategy]. In an internal email exchange on 9 October 2019, a Refinitiv employee stated: [commericial strategy].[1437] Another Refinitiv employee ([senior employee]) replied: [pricing strategy].[1438]

(1179) As explained above, it is not credible that the combined entity would offer new end-customers the cheapest version on the Eikon, as such clients would be revealing that they need LSE venue data (in other words, they would be price takers). The respondents to the market investigation declared their intentions to add a Refinitiv desktop service based on the current price of the terminals which are best approximated by the average revenue of the Eikon terminal. For the downstream gain in the form of Eikon revenues, the Commission takes into account the long-term expected revenue generated by Eikon users, approximated by the average desktop revenue. This average price for customers stood at EUR […] per year[1439] according to the Notifying Party.[1440] In its calculations, the Commission will therefore use this figure for clients adding Eikon terminal to continue receiving LSE venue data.

(1180) Regarding customers switching all their desktop demand to Refinitiv, the most comprehensive desktop service would be a high tier variant of Eikon, which offers the greatest set of functionalities. According to internal documents of Refinitiv the monthly revenue per user for high tier variants of Eikon is set at USD […], corresponding to a yearly revenue of EUR […].[1441]

(1181) Refinitiv submitted that approximately [a small percentage] of its cost base is variable.[1442] According to Refinitiv, the most representative profit margin is likely to be the September 30, 2019 last twelve month adjusted EBITDA margin ([a

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1434 See Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2: "*for those end customers, the most likely choice would be adding the lowest cost Eikon variant containing LSE RTD, which has a list price of €[…] per annum*".

1435 Form CO, paragraph D.514: "[i]*n addition, a slimmed down variant of Eikon (which includes access to LSEG venue data) is already available for fixed income traders for EUR 925 per month*".

1436 The Commission inquired several times whether all Eikon versions are sold to all customers, regardless of the segment in which the customer operates. The Notifying Party did not submit clear statements on the questions whether each potential customer could buy each Eikon variant regardless of the purpose the end customer wishes to use it for in its RFI 29 reply, question 30 and RFI 33 reply, question 3. In fact, the Notifying Party states that "different Eikon variants contain different functions and content as relevant to the different user communities. As such, the different Eikon variants are sold to types of customers relevant to the use case each Eikon variant is designed for" (RFI 29 reply, question 30)

1437 [internal document], Doc ID 4151-9772 (emphasis added)

1438 [internal document], Doc ID 4151-9772 (emphasis added).

1439 This figure is lower than the price provided by the Notifying Party for a reduced version of Eikon of EUR […] per month, corresponding to EUR […] per year. In order to take the more conservative figure, the Commission accepts the figure of EUR […] as an appropriate estimate of the average price.

1440 RFI 29 reply, question 46.

1441 Annex 287 to the Form CO, converted based on the 2018 average EUR/USD ECB conversion rate 1,1798.

1442 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.

significant percentage])[1443]. The Commission bases its estimate of incremental costs on the above provided figures.

(1182) Finally, data vendors retain a mark-up on end-user license fees (e.g. Refinitiv charges a so-called "administration fee" of [a small percentage] on top of end-user license fees) which is to be paid by end-customers on top of the price of the desktop and on top of the license fee itself.[1444] The profits that Refinitiv could retain additionally downstream in case of a foreclosure strategy through the administrative fee would be EUR […] per year if 71% of end-customers currently not receiving LSE real-time data through Refinitiv, were to do so in the future, in line with the findings of the Commission's market investigation.

Multi-homing

(1183) The Parties have indicated that customers can source LSE real-time data through multiple providers simultaneous without entailing additional costs, i.e. customers multi-home desktop providers. The Commission took into account this consideration in its calculations in Table 81 below. According to the figures for desktop services carrying LSE real-time data provided by the Notifying Party, [a significant percentage] of end-customers receiving LSE real-time data through a desktop solution from a competitor also receive the data through a Refinitiv desktop solution.[1445] For the purposes of this calculation, the Commission considers that only the end-customers who do not currently obtain real-time LSE venue data from Refinitiv would be susceptible to increase the downstream revenues of the combined entity.

Calculating the minimum switching rates that would result in a profitable foreclosure strategy

(1184) The Commission estimated the minimum switching rate required to make a foreclosure strategy profitable from a business perspective based on two scenarios:

(a) End-customers switching and adding in the same proportion as the switching rates observed in the market investigation - one end-customer switching for every 3.4 end-customers adding a terminal. According to the Phase II market investigation, 55% of end-customers currently sourcing LSE real-time venue data from a competitor of Refinitiv would add a Refinitiv desktop service in case of a total input foreclosure and 16% of those customers would switch their full desktop service requirements to Refinitiv. This represents one end-customer switching fully for 3.4 end-customers adding a Refinitiv desktop solution. Holding this proportion constant, the Commission estimated that a total input foreclosure strategy would be profitable (in the sense that the profits lost upstream would be fully compensated by the profits gained downstream) if at least [a small percentage] of end-customers currently sourcing LSE real-time data from a competitor of Refinitiv add or switch to Refinitiv, consisting of [a small percentage] of these end-customers adding a Refinitiv desktop service and [a small percentage] of these end-customers switching to Refinitiv desktop services. These levels are significantly below the switching and adding

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1443 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to USD 2,147 million, from annex Annex 49 to the Form CO.

1444 Form CO, paragraph D.198.

1445 Out of the […] end-customers, […] received that data through Refinitiv only, whereas […] end-customers received the data through both Refinitiv and at least one other desktop solution.

rates observed in the Phase II market investigation, in which 55% of end-customer respondents declared their intentions to add Refinitiv deskop services and 16% declared their intention to switch their full demand to Refinitiv desktop services, in the context of a total input foreclosure strategy.

(b) *No end-customers fully switch, end-customers only adding Refinitiv desktop solutions to their existing set of products.* This scenario corresponds to a sensitivity check of the main findings in the most likely scenario (scenario (a)). This is because the revenue downstream from end-customers adding a desktop service is assumed to be lower than from end-customers switching all their demand, and therefore, it is more conservative when estimating the possible gains from a total input foreclosure strategy. The Commission determined that it would be sufficient that [a small percentage] of end-customers currently sourcing LSE real-time data from a competitor of Refinitiv add a Refinitiv desktop service for the total input foreclosure strategy to be profitable. This percentage is significantly lower than the overall adding and switching rate observed in the Phase II market investigation (71%).

(1185) The Commission's estimates regarding for scenarios (a) and (b) are summarized in Table 81 below.

Table 81

Category of items		#	Item	Value
Results of the Commission's market investigation[1446]		A	... switching to or adding Refinitiv desktop services to continue accessing LSE real-time venue data	[70-80]%
		B	... switching to Refinitiv desktop services to continue accessing LSE real-time venue data	[10-20]%
		C	... adding Refinitiv desktop services to continue accessing LSE real-time venue data	[50-60]%
LSE real-time venue data (upstream market)		D	LSEG revenue from LSE real-time venue data (GBP million)[1447]	[...]
		E	LSEG revenue from LSE real-time venue data (EUR million)[1448]	[...]
		F	LSE real-time venue data profit margin[1449]	[a very high percentage]
		G	LSEG profit from LSE real-time venue data (EUR million)[1450]	[...]
Desktop services (downstream market)	Eikon	H	Revenue per user for end-customers switching to Eikon (EUR)[1451]	[...]
		I	Revenue per user for end-customers adding Eikon (EUR)[1452]	[...]
		J	EBITDA margin in business segment 'Data' of LSEG internal reporting 2019[1453]	[a significant percentage]
		K	Portion of costs that are variable[1454]	[a small percentage]

1446 Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469.
1447 RFI 29 reply, paragraph 65.
1448 Line (D) converted based on ECB average exchange rate GBP/EUR for 2019 (0.8777).
1449 Form CO, Information Services, Annex 122.
1450 Calculated by the Commission (E*F).
1451 Form CO, Information Services, Annex 287 – Document 21, page 5.
1452 RFI 29 reply, question 46.
1453 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to USD [...], from annex Annex 49 to the Form CO.
1454 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.

Category of items		#	Item	Value
		L	Profit per user for end-customers switching to Eikon (EUR)[1455]	[...]
		M	Profit per user for end-customers adding Eikon (EUR)[1456]	[...]
	Administrative fee	N	Administrative fee received by Refinitiv for distribution of LSE real-time venue data[1457]	[a small percentage]
		O	Additional profit of Refinitiv from incremental LSE real-time venue data distribution (EUR million)[1458]	[...]
Distribution of LSE real-time venue data through desktops[1459]		P	Number of total desktop terminals carrying LSE real-time venue data	[...]
		R	Number of end-customers accessing LSE real-time venue data through Refinitiv desktop services only	[...]
		S	Number of end-customers accessing LSE real-time venue data through Refinitiv desktop services and other data vendors	[...]
		T	Proportion of users accessing LSE real-time venue data with a Refinitiv desktop[1460]	[a significant percentage]
Multi-homing		U	Number of end-customers accessing LSE real-time venue data through a desktop service by a Refinitiv rival[1461]	[...]
		V	Multi-homing: percentage of end-customers accessing LSE real-time venue data through a desktop solution of Refinitiv rival that also access LSE real-time venue data through a Refinitiv desktop[1462]	[a significant percentage]
Foreclosure impact on users		X	Number of end-customers switching their desktop requirements to Eikon [1463]	[...]
		Y	Number of end-customers adding Eikon to existing desktop services[1464]	[...]
Critical switching rates		Z	Critical rate of switching and adding in scenario (a)	[a small percentage][1465]
		AA	Critical rate of adding in scenario (b)	[a small percentage][1466]
Breakeven point		AB	Profits lost upstream = profits gained downstream (in EUR million) in both scenarios (a) and (b)	[...][1467]
Profit from the foreclosure		AC	Profit from the foreclosure strategy (in EUR million)	[...][1468]

Source: Commission's analysis.

1455 Calculated by the Commission ((1-(1-J)*K*H).
1456 Calculated by the Commission ((1-(1-J)*K*I).
1457 Form CO, paragraph D.198.
1458 Calculated by the Commission (A*E*N*(1-T)*(1-(1-J)*K)).
1459 RFI 25 reply, Annex 2.2., "spd - Stata output", tab "Stata output".
1460 Calculated by the Commission ((R+S)/P).
1461 RFI 25 reply, Annex 2.2., "spd - Stata output"], tab "Stata output".
1462 Calculated by the Commission (S/(P-R)).
1463 Calculated by the Commission (P*(1-T)*B).
1464 Calculated by the Commission (P*(1-T)*C).
1465 Solved by iteration.
1466 Solved by iteration.
1467 Calculated by the Commission (G*(1-T)*(1-Z)) = (1-T)*P*(Z*L + AA*M).
1468 Calculated by the Commission (Y*M+X*L) + O - G*(1-T)*(1-A)

(1186) Based on the above, the Commission established a material financial incentive for the combined entity to engage in a total foreclosure of the LSE real-time venue data.

(1187) In the response to the SO, the Notifying Party argues that the calculations put forward by the Commission in Table 81 above imply that LSEG is systematically and substantially under-pricing its venue data.[1469] This would be the case because the potential profits of the foreclosure strategy are manifold the equivalent of the profits that LSEG generates today through the licencing of LSE venue data.

(1188) However, the Notifying Party's argument does not call into question the Commission's conclusion that the combined entity would have incentives to engage in total foreclosure in the market for desktop services by restricting access to LSE venue data. At least two distinctive aspects of the venue data licencing business can explain this.

(1189) *First*, the licensing of venue data is in the scope of financial regulation. The terms of licencing are either subject to regulation (e.g., Article 13 MiFIR) or potentially subject to regulation. This limits greatly the possibilities of LSEG to increase prices of the licencing of venue data.[1470] This constraint will be alleviated through the Transaction. This is because the price and commercial conditions of the sale of desktop solutions are not subject to regulatory oversight and intervention, under the same rules as the licencing terms of venue data. Therefore, the Transaction will relax a constraint in terms of pricing that represents today a potential cap of the prices of venue data upstream.

(1190) *Second*, the prices of the licencing of venue data are transparent and do not allow for discrimination among customers upstream. This is not the case downstream. Among the largest customers of Refinitiv some pay [...] more per terminal than other customers. For example, in 2019 [large customer] paid USD [...] per access on average, compared to [large customer] paying USD [...] per access for the same period.[1471] The combined entity offering an integrated product to the downstream customers, would be able to price discriminate among end-customers depending on their willingness to pay for the upstream data (additionally to discriminating for the willingness to pay for the desktop solutions). Therefore, the Transaction offers new possibilities for LSEG to monetise its market power in venue data upstream, which possibilities are not available to LSEG today.

(1191) The perceived inconsistency in the outcome of the analysis can be explained through the relaxation of explicit or implicit constraints on pricing of venue data that exist upstream but will be removed through the Transaction for integrated products comprising the venue data and the desktop solutions.

Additional robustness check of the financial analysis

(1192) The Commission acknowledges that the estimates of the combined entity's financial incentives (as presented in Table 81 above) rely on the assumption that end-customers that indicated they would add a Refinitiv desktop solution in case of foreclosure, would purchase a Refinitiv desktop solution for each end-user accessing LSE real-time venue data. The Notifying Party considers the Commission's

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1469 Response to the SO, Annex 2, p.3.

1470 However, as explained in recitals (1050)ff., these regulatory constraints do not suffice to exclude any incentives of the combined entity to engage in input foreclosure in downstream markets, by restricting access to LSE venue data.

1471 "Response to EC email of 10 June 2020", Doc ID 3892.

assumption of a 1:1 scaling factor is not plausible [1472] because of the high profitability of the foreclosure strategy. The high potential profitability can be explained by the specificities of the LSE venue data upstream market, as described above. The Notifying Party considers that the foreclosure strategy would lead users of LSE real-time venue data to share a Refinitiv solution added with other users.

(1193) As explained in recitals (1536) below, the Commission does not consider that this argument is substantiated. All the more so, as it relies on the assumption that the cost structure of companies using desktop services is today suboptimal. The Notifying Party did not present facts to substantiate its claim that the scaling factor for desktop services additions would be lower than 1:1.[1473]

(1194) However, in order to assess the robustness of its findings, the Commission estimated the incentives of the combined entity doubling the scaling factor to 1:2, namely assuming that end-customers who reported that they would add Refinitiv desktop services would actually do so only for half of their desktop service users. The Commission estimated that even in this scenario, the merged entity would have positive financial incentives to foreclose its competitors. The profit from a foreclosure strategy would amount to EUR […] instead of EUR […] based on the calculation steps presented in Table 81 above.[1474]

(1195) In the response to the SO, the Notifying Party also questions the switching rates that the Commission used in its calculation in Table 81 above. The Notifying Party submits that these switching rates are based also on the replies of respondents who did not license LSE venue data at the time of the market investigation or respondents who already license LSE venue data through Refinitiv. According to the Notifying Party, these respondents should be excluded from the switching rates because they only had to answer theoretically to the question how they would react in case of total foreclosure.[1475]

(1196) The methodology that the Commission followed to calculate these switching rates based on the market investigation results is described in recitals (987)ff. above. However, to address the arguments raised by the Notifying Party concerns, the Commission conducted sensitivity analysis taking into account hypothetically updated switching rates.[1476] For the reasons explained below, the Commission finds that the combined entity would have the incentive to engage in input foreclosure in the market for desktop services, by restricting access to LSE venue data:

(a) The Commission estimated the combined entity's incentive to engage in total input foreclosure if only end-customers that are currently licencing LSE real-time venue data were included in the respondents sample. Within this sample, in the context of a total input foreclosure strategy, 54% of end-customer respondents stated that they would add a Refinitiv desktop service and 15% of the end-customer respondents would switch all their desktop service

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1472 Response to the SO, Annex 2, page 10.

1473 In RFI 29 reply, question 34, the Notifying Party concluded that it "*difficult to provide concrete evidence*" to substantiate its claims.

1474 The number of end-customers adding a Refinitiv desktop solution marked in Table 81 above with the letter Y, was divided by two in this scenario.

1475 Response to the SO, Annex 1.

1476 Based on the RFI 45 reply, Appendix.

requirements to Refinitiv. In this scenario, the potential profit from a total input foreclosure strategy would amount to EUR […], instead of EUR […];[1477] and

(b) The Commission also estimated the combined entity's incentive to engage in total input foreclosure if only end-customers that purchase LSE real-time venue data today *and* do not have a Refinitiv desktop at firm level were included in the respondents sample. Within this sample, in the context of a total input foreclosure strategy, 39% of end-customer respondents stated that they would add a Refinitiv desktop service and 16% of the end-customer respondents would switch all their desktop service requirements to Refinitiv. The potential profit from a total input foreclosure strategy would amount to EUR […], instead of EUR […].[1478]

(1197) The Commission acknowledges that these estimates are based on assumptions in particular regarding the price of desktop solutions; the scaling factor at which Refinitiv desktop services would be added; and the representativeness of the informative end-customers that participated in the Commission's market investigation. On balance and in view of the robustness checks that address the arguments raised by the Notifying Party, the Commission concludes that the combined entity would likely have significant financial incentives to engage in a full foreclosure strategy in the market for desktop services, by restricting access to real-time LSE venue data.

B.1.2. Refinitiv distributes exclusively Tradeweb's venue data today through its desktop services

(1198) According to paragraph 44 of the Non-Horizontal Merger Guidelines, the Commission will consider the type of strategies adopted on the market in the past in its assessment of the likely incentives of the combined entity. As discussed in recitals (1027)ff above, Refinitiv already today restricts access to the data of its venue Tradeweb and distributes most of them exclusively.[1479] In light of this behaviour, the Commission considers it likely that the combined entity would also have the incentive to restrict access to LSE venue data in the downstream market for desktop services. This is all the more so, given that the exclusive distribution of Tradeweb venue data is a critical driver for sales of Eikon, Refinitiv's desktop service.

(1199) *First*, Refinitiv's and Tradeweb's internal documents confirm that Tradeweb venue data and their exclusive redistribution are important to Eikon sales. Preparing for the […]renewal of its distribution agreement with Tradeweb, Refinitiv compiled an internal document in […], which highlighted the […]. As shown in Figure 17 below, Refinitiv notes that […] is […].[1480] In addition, Refinitiv estimated that […].[1481] In the same presentation, Refinitiv adds that […].[1482]

Figure 17

[internal document]

Source: [internal document], Doc ID 4794-52770, page 5 (emphasis added).

1477 As calculated based on Table 81 above.

1478 As calculated based on Table 81 above.

1479 Tradeweb venue data is only one type of exclusive content that Refinitiv offered through its desktop service. A full list is provided in Form CO, Information Services, Annex 287 – Document 20, page 6 and has been updated by RFI 16 reply, question 3.

1480 See [internal document], Doc ID 4794-52770, page 5.

1481 See [internal document], Doc ID 4794-52770, page 5.

1482 See [internal document], Doc ID 4794-52770, page 7.

(1200) In this context, Refinitiv also forecast its revenues from the Tradeweb venue data distribution agreement for [date range] (following the agreement renewal).[1483] Refinitiv estimated that [internal document] would be more than USD […] in each of the years [date range].[1484]

(1201) [purpose of internal document], Tradeweb also compiled an internal presentation in February 2016 which recognizes that [analysis regarding value of Tradeweb data].[1485] In another document, Tradeweb recognized that [analysis regarding value of Tradeweb data].[1486]

(1202) *Second*, during the market investigation, several end-customers point to the exclusive distribution of Tradeweb venue data through Refinitiv desktop services.[1487] End-customer Société Générale notes that the existence of exclusive Tradeweb information makes Refinitiv's desktop services difficult to replace: *"... there seems to be key, exclusive, and indispensable information/data and capabilities available in some desktop solutions not available on others that would make the full switch almost impossible*" [1488] and "*some key and indispensable pre-trade real time* [venue] *data from Tradeweb are exclusively available on Refinitiv desktop solutions...*".[1489]

(1203) In its Response to the SO, the Notifying Party insists that the example of Tradeweb does not provide any evidence as to the future incentives of the combined entity in the downstream market for desktop services for the same reasons explained in recital (1035) above regarding the downstream market for CRTDs.[1490] The Commission addresses these arguments in recital (1036) above.

B.1.3. Other vertically integrated providers of desktop services distribute exclusively data from their trading venues through desktop services

(1204) Refinitiv is not the only entity which distributes data from its own trading venue exclusively through its desktop service. Indeed, both Bloomberg and ICE also use their own desktop services to redistribute exclusively data from certain trading venues that they own. In more detail:

(a) The Notifying Party acknowledged that data from Bloomberg's fixed income and FX venues are or used to be exclusive to Bloomberg desktops.[1491] In the market investigation, end-customers also referred to Bloomberg's exclusive distribution practices, referring to venue data from Bloomberg Bond Trader and Bloomberg Swap Trader.[1492]

(b) Among its many trading venues, ICE owns significant energy commodities future exchanges, generating valuable venue data e.g., OTC Swaps to Futures or S2F. In 2015, ICE acquired the data vendor Interactive Data Corporation ("IDC"). Before its acquisition by ICE, IDC's desktop service was called

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1483 See [internal document], Doc ID 4991-18845.
1484 See [internal document], Doc ID 4991-18845, page 2.
1485 See [internal document], Doc ID 4795-31767, page 3.
1486 See [internal document], Doc ID 4791-27080, page 9.
1487 Question 28, Questionnaire 19 to information services end-customers, Doc ID 6469.
1488 Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.
1489 Question 118, Questionnaire 9 to information services end-customers, Doc ID 6480.
1490 Response to the SO, Information Services, paragraphs 103ff.
1491 RFI 29 reply, question 7. In its Observations to the SO, Bloomberg submits that […] (Bloomberg's Observations to the SO, Doc ID 8374, fn. 25).
1492 E.g., UBS (see Question 28, Questionnaire 19 to information services end-customers, Doc ID 6469) and Societe General (see Question 15.1, Questionnaire 19 to information services end-customers, Doc ID 6469).

"Future Source" and offered access to venue data from several futures exchanges. Following the acquisition, ICE built a new desktop service on the basis of Future Source. This desktop service is today called ICE Connect. Refinitiv's internal documents suggest that ICE Connect distributes exclusively OTC S2F venue data. For example, a 2019 internal Refinitiv presentation noted: [competitive analysis].[1493] In the market investigation, one data vendor, DTN also referred to ICE's exclusive distribution practices. [1494] When asked specifically regarding venue data that are distributed exclusively through its desktop services, ICE submits that "[t]*here is no market data from ICE energy commodities future exchanges or other ICE regulated trading venues which are distributed exclusively through (i) ICE Connect or other desktop services" but adds: "ICE does have a small OTC platform for spot and forward physical energy that is distributed only through ICE Connect or other desktop services*".[1495]

(1205) The existence of the above examples of exclusive redistribution, both by Refinitiv and by its competitors, indicate that the combined entity might be incentivised to engage in the same kind of exclusionary behaviour post-Transaction regarding LSEG venue data with the objective of foreclosing its rivals in the downstream market for desktop services.

B.1.4. Refinitiv's internal documents suggest that exclusive distribution of valuable datasets can drive additional sales

(1206) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argued that the combined entity would have little or no incentive to foreclose competing data vendors because the meagre profits gained in desktop services would be outstripped by the losses to its upstream data business (LSE venue data).

(1207) The economic analysis presented in recitals (1166)ff above shows that this is not the case. In addition, an Oliver Wyman presentation prepared in November 2017 exclusively for Refinitiv considered the [commercial strategy].[1496] The presentation identified [commercial strategy].[1497]

(1208) The presentation first explained that *[Refinitiv's commercial strategy]*.[1498] The presentation then went on to estimate that [Refinitiv's commercial strategy].[1499] On this basis, the presentation concludes that [Refinitiv's commercial strategy].[1500] Figure 18 below illustrated this.

Figure 18

[internal document]

Source: [internal document], Doc ID 4992-56, page 77.

(1209) By [business strategy], the goal of Refinitiv would be to [business plan]. The presentation explicitly stated that "*[product] are more likely to [business strategy]*

1493 [internal document], Doc ID 4991-10078, page 4.
1494 Question 39, Questionnaire 8 to data vendors, Doc ID 6479.
1495 ICE's reply to RFI of 4 September 2020, Doc ID 6567.
1496 [internal document], Doc ID 4992-56.
1497 [internal document], Doc ID 4992-56, page 97.
1498 [internal document], Doc ID 4992-56, page 74.
1499 [internal document], Doc ID 4992-56, page 75.
1500 [internal document], Doc ID 4992-56, page 75.

and may therefore lead to [business secret]".[1501] The goal of Refinitiv would be to protect in particular its clients which are "*at risk*" from competition as shown in Figure 19 below. These are the customers that are [internal document].

Figure 19

[internal document]

Source: [internal document], Doc ID 4992-56, page 86.

(1210) While this presentation dates from 2017 and it is not clear what action Refinitiv has taken on that basis, it supports the conclusion that exclusive redistribution of differentiated content can be profitable for Refinitiv and it can provide it a competitive advantage in markets where it faces competition, e.g., in desktop services. For this reason, and in light of the economic analysis above, this presentation confirms the Commission's finding that the combined entity would have the incentive to distribute exclusively LSE venue data through Refinitiv desktop services, foreclosing rival data vendors in the downstream market.

B.2. Partial foreclosure based on technical degradation

(1211) The analysis that follows below shows that the combined entity would have the incentive to engage also in partial foreclosure in desktop services, by technically degrading the access to LSE real-time venue data. Such a strategy would be profitable taking into account the Commission's economic analysis on total foreclosure. Moreover, there are examples of similar strategies in the market by LSEG's subsidiary Borsa Italiana.

B.2.1. A partial foreclosure strategy would be profitable

(1212) The combined entity will have an incentive to engage in an input foreclosure strategy if doing so proved profitable. The economic analysis presented above shows that the combined entity would have the incentive to engage in total input foreclosure, altogether depriving rival desktop service providers from access to LSE venue data.

(1213) The same economic analysis would support that the combined entity also has the incentive to engage in partial input foreclosure based on technical degradation (i.e., offering LSE venue data with higher latency or otherwise lower quality). In the market investigation, both in a total foreclosure scenario and in a partial foreclosure scenario concerning LSE venue data, more than 50% of end-customers confirmed that they would either switch all of their desktop requirements to Refinitiv (22% for partial, 16% for total) or add a Refinitiv desktop on top of their existing terminal (33% in case of partial foreclosure, 55% for total).[1502] The Table below shows that the percentages of end-customers switching or adding desktop service are not fundamentally different in the two scenarios. The combined entity can thus expect to make similar gains in the downstream market for desktop services through partial input foreclosure as with total input foreclosure.

1501 [internal document], Doc ID 4992-56, page 97.

1502 Regarding the comprehensiveness and representativeness of the information provided in the market investigation, see recitals (985)ff above.

Table 82

Upstream Market	Downstream Market	Input Foreclosure	Percentage of End-customers...[1503]		
			... switching to Refinitiv desktop services	... adding Refinitiv desktop services	... only keeping their existing desktop service provider[1504]
LSE Venue Data	Desktop Services	Full[1505]	16%	55%	29%
		Partial[1506]	22%	33%	45%

Source: Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469.

B.2.2. LSEG has faced antitrust scrutiny in the past for partial foreclosure of rival data vendors regarding Borsa Italiana venue data

(1214) For the reasons explained above, the Commission takes the view that the combined entity has the incentive to engage in partial input foreclosure in the market for desktop services by restricting access to LSE venue data and that the AGCM's decision supports this conclusion.

(1215) In its Response to the SO, the Notifying Party insists that the AGCM's does not provide any evidence as to the future incentives of the combined entity in the downstream market for desktop services for the same reasons explained in recital (1044) above regarding the downstream market for CRTDs.[1507] The Commission addresses these arguments in recital (1045) above.

B.3. Common considerations regarding incentives for total and partial foreclosure

(1216) This Section discusses two arguments of the Notifying Party regarding the combined entity's incentives to engage in total or partial input foreclosure.

B.3.1. Regulatory scrutiny does not prevent the combined entity from engaging in foreclosure

(1217) Article 13 MiFIR requires trading venues to make venue data available to the public on an RCB and to ensure non-discriminatory access to the information. Notwithstanding this, for the reasons explained in recitals (1050)ff above, the Commission takes the view that the combined entity would maintain the incentive to engage in total/partial input foreclosure in the market for desktop services by restricting/degrading access to LSE venue data.

B.3.2. The majority of end-customers would not have the power to retaliate against the combined entity

(1218) According to the Notifying Party, the combined entity would not have the incentive to engage in a total/partial foreclosure strategy involving LSE venue data. Among other reasons, this is because any strategy aimed at inhibiting end-customer access to

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1503 Estimated based on informative end-customers (i.e., excluding all respondents who selected "Other", unless their reply could not be categorized to one or more of the options provided).

1504 Without adding any other product, thus accepting slower/lower-quality access to the LSE venue data.

1505 Question 21.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1506 Question 21.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

1507 Response to the SO, Information Services, paragraph 107.

the combined entity's venue data through rival desktops would meet immediate customer backlash.[1508]

(1219) Contrary to the Notifying Party's claims, the market investigation suggested that end-customers do not have buyer power to tackle an input foreclosure strategy in desktop services. The majority of informative end-customers submits that they could not take action to prevent or discourage any foreclosure behaviour or in any event, they could not do so effectively.[1509] As Électricité de France puts it, "*the suppliers of desktop solutions... are rather in a strong position to negotiate given that any change of supplier implies to redo the parameters setting, which is very costly*".[1510] If anything, the negotiating position of end-customers is expected to deteriorate post-Transaction, as Sydbank puts it: *"...mostly we are in a position where we only can accept or reject the conditions from the Exchanges and Index providers, as they have a dominant market position / monopoly. On the vendor side, we have a few possibilities to ask more vendors, but if they are bought by Exchanges and your earlier questions materialize this is also closing the possibilities*".[1511]

(1220) In the response to the SO, the Notifying Party identified four end-customer respondents who indicate that they would deploy retaliatory strategies in the event of a foreclosure strategy and one end-customer respondent who submits that it would apply trade association pressure.[1512] The Commission takes note of the Notifying Party's indication. However, these respondents only represent a minority of the informative respondents to the Commission's market investigation.[1513]

(1221) None of the additional arguments that the Notifying Party submits change the Commission's conclusion regarding the absence of countervailing buyer power in the market for desktop services.

(1222) *First*, the Notifying Party argues that there is countervailing buyer power because of customer concentration. In LSEG's information services division, only [a very small percentage] of customers represents [a high percentage] of total revenues. [a very small percentage] of Refinitiv's customers represents [a high percentage] of total revenues. According to the Notifying Party, there is also material overlap between the Parties' top customers.[1514] However, for the reasons set out in recital (1068) above, this assertion in itself does not constitute evidence of buyer power.

(1223) In any event, irrespective of demand concentration in Refinitiv desktop services, end-customers are unlikely to have buyer power because they cannot easily switch away to other suppliers. The majority of informative end-customers submit that they have not switched all or part of their desktop service requirements from one provider to another in the past 3 years.[1515] As Figure 20 below shows, retention in Refinitiv desktop services was above [a high percentage] in 2019 and has [summary of change in retention] since December 2018.

1508 Response to the decision pursuant to Article 6(1)(c), Information Services, paragraphs 73 and 142.
1509 Question 23, Questionnaire 19 to information services end-customers, Doc ID 6469.
1510 Question 56, Questionnaire 19 to information services end-customers, Doc ID 6469.
1511 Question 56, Questionnaire 19 to information services end-customers, Doc ID 6469.
1512 Response to the SO, Information Services, paragraph 108.
1513 Question 23, Questionnaire 19 to information services end-customers, Doc ID 6469.
1514 Response to the decision pursuant to Article 6(1)(c), Information services, paragraph 71.
1515 Question 14, Questionnaire 9 to information services end-customers, Doc ID 6480.

Figure 20

[internal document]

Source: [internal document], Doc ID 4794-32754.

(1224) *Second*, the Notifying Party submits that end-customers have multi-product relationships with Refinitiv and they often leverage them in order to get better terms in their agreements.[1516] In this respect, the Notifying Party provides two examples of contract renewals whose multi-product scope included Eikon terminals: [large customer] and [large customer].[1517]

(1225) However, even in these examples, which were selected by the Notifying Party among all end-customers, based on the review of Refinitiv's internal documents, there is no conclusive evidence that [large customer] and UBS exerted significant buyer power in their renewal negotiations with Refinitiv.

(a) [large customer] negotiated with Refinitiv the renewal of its Global Agreement worth EUR […] in the first quarter of 2019.[1518] Regarding these negotiations, the Notifying Party notes: "[large customer] *contracted for the majority of their previous services for another [contract duration], but Refinitiv had to make substantial concessions* [in terms of flexibility clauses; discounts; and additional functionalities offered]". Refinitiv's internal documents do not confirm the assertions of the Notifying Party. They show that Refinitiv was confident about the renewal of the agreement at least regarding desktop services several months before the renewal agreement was concluded. For example, in an email exchange in September 2018 (six months before the renewal was due), a Refinitiv employee wrote regarding [large customer]: [Refinitiv internal views on negotiations].[1519] In another email exchange the same month, a Refinitiv employee wrote to the Refinitiv CEO: [Refinitiv internal views on negotiations].[1520] As to the outcome of the negotiation renewal, a Board Presentation of December 2019 reported: [outcome of negotiations].[1521]

(b) In 2019, [large customer] negotiated the renewal of its wealth management business at the same time as the renewal of its data and Eikon Premium desktop licenses. According to the Notifying Party, this process culminated to significant price concessions offered by Refinitiv. The Notifying Party cites internal Refinitiv documents which suggest that (i) [commercial negotiations][1522] and (ii) [commercial negotiations].[1523] However, these documents in themselves do not show that [large customer] had countervailing buyer power. They simply indicate that it was negotiating effectively in the context of the renewal of its agreements. Regarding the data and desktop

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1516 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 3, page 18.

1517 RFI 29 reply, question 32.

1518 On 31 May 2018, Refinitiv CEO wrote to [large customer]: [Business communication]. See [internal document], Doc ID 4257-12337.

1519 [internal document], Doc ID 4991-12807.

1520 [internal document], Doc ID 4257-31702.

1521 Form CO, Information Services, Annex 287 – Document 29, page 67 (emphasis added).

1522 In any event, the data and desktop license agreement was eventually signed earlier and independently of the outcome of the agreement concerning the wealth management business. See […], Doc ID 4257-11153.

1523 RFI 29 reply, question 32.

license, [large customer] [commercial negotiations] from the contract value.[1524] In the final offer, Refinitiv proposed [commercial negotiations].[1525] In an email of 12 September 2019, the [senior employee] Refinitiv wrote internally about this final offer: [business communication][1526]. Refinitiv also offered [large customer] Eikon Terminals at […] compared to the […] of […] but this concerned [competitive analysis of Refinitiv].[1527] Throughout the negotiations, Refinitiv was aware that it could always use [commercial negotiations]. In an email of 30 November 2018, a Refinitiv employee noted: [business communication].[1528]

(1226) The examples above, which the Notifying Party presents as suggestive of countervailing buyer power exerted by customers with multi-product relationships with Refinitiv, do not provide conclusive evidence that significant buying power was exerted for the reasons explained above. But even if these two customers, which figure among the top end-customers of the Parties, individually have some buyer power, this cannot be extrapolated to the remaining end-customers of Refinitiv, who as explained in recital (1062) above expressed that they would not have the ability to engage in any successful practices to prevent or discourage foreclosure.

C. Impact on effective competition

(1227) A total/partial input foreclosure strategy involving LSE real-time venue data would significantly impede effective competition in the market for desktop services.

(1228) In the event of a total/partial input foreclosure strategy, Refinitiv's rivals would only be able to offer a desktop product of lesser quality, which does not allow (high-quality) access to LSE venue data. Refinitiv's rivals would be forced to compete less effectively than today for new opportunities. This would impact in particular Refinitiv's smaller rivals.[1529] Moreover, a total/partial input foreclosure strategy would allow Refinitiv to "*get a foot in the door*" with the end-customers that today use rival desktop services. Eventually, this would allow Refinitiv to displace these rivals – in particular the smaller ones – from their existing customer base. A total/partial foreclosure strategy regarding LSE venue data would also raise even higher the barriers to entry in the market for desktop services. The impact of the foreclosure on rivals would be amplified by the combined entity's ability to use commercially sensitive information to target rivals' customers (see Section 4.5.7. for a discussion of these non-coordinated effects).

(1229) Moreover, a total/partial input foreclosure strategy would directly harm end-customers of desktop services in the short term. Many of them would be forced to add a Refinitiv desktop to continue accessing LSE real-time venue data.[1530] As a result, end-customers would have to pay more for desktop services without any additional benefit compared to the way the end-customer accesses the data today.

1524 RFI 29 reply, question 32, Annex 32.6 – [large customer].

1525 RFI 29 reply, question 32, Annex 32.7 – [large customer]. Regarding the [commercial negotiations] discount requested by [large customer], on […], the [senior employee] in Refinitiv's [internal division] stated: […] See "[internal document], Doc ID 4794-44704.

1526 RFI 29 reply, question 32, Annex 32.7 – [large customer].

1527 RFI 29 reply, question 32, Annex 32.7 – [large customer].

1528 […], Doc ID 4151-21469.

1529 The impact would be lower for Bloomberg, which is the number one player in the market for desktop services and offers an instant messaging functionality which is "must-have" for on-trading floor customers.

1530 Or at least, to continue accessing them with the same latency and quality level that they enjoy today.

(1230) The results of the market investigation confirm that the proposed Transaction would have a negative impact on the market for CRTDs.

(1231) Finally, the Commission notes that the Notifying Party has not shown cumulatively consumer benefits, merger-specificity and verifiability of the submitted efficiencies.

C.1. A total/partial foreclosure would impact effective competition

C.1.1. Foreclosure of Refinitiv's smaller rivals by decreasing the quality of their desktop services

Refinitiv's smaller rivals in desktop services

(1232) In desktop services, Refinitiv faces strong competitive constraints from Bloomberg.[1531] Bloomberg only offers a premium "*all-or-nothing*" product[1532] (priced at approximately USD 24 000 per year).[1533] Refinitiv also offers an Eikon Premium desktop service, which competes closely with Bloomberg's solution. Eikon Premium terminals and other desktop services based on Eikon Premium represented [a small percentage] of Refinitiv's desktop user base in 2018.[1534]

(1233) However, Refinitiv also offers mid-tier and low-tier desktop services (i.e., non-premium solutions). [a high percentage] of Refinitiv's users in 2018 purchased mid- or low-tier desktop products. Regarding these services, Refinitiv competes more closely with smaller rivals like FactSet, Iress, DTN, Infront Italia, Fidessa, Morningstar, who all offer non-premium solutions tailoring the content and functionalities to specific customer segments.[1535] The pricing of these products is significantly lower than Bloomberg's premium product.[1536]

(1234) The results of the Commission's market investigation confirm that in the worldwide market for desktop services, Refinitiv competes not only with Bloomberg but also with smaller rivals. While most end-customers mention Bloomberg as the closest competitor to Refinitiv, several respondents also identify FactSet and S&P.[1537] In particular, end-customers indicate that Bloomberg is the closest competitor for

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1531 See Figure 6 above.

1532 Form CO, Annex M.9564_LSEG_5.4_093, page 7.

1533 See https://www.wallstreetprep.com/knowledge/bloomberg-vs-capital-iq-vs-factset-vs-thomson-reuters-eikon/ (last accessed on 9 June 2020).

1534 Form CO, Information Services, Annex 287 – Document 21, page 5.

1535 As one end-customer respondent puts it, "*with Eikon Premium..., Refinitiv is positioned on the "high-tier" desktop segment. On this segment, the competitor is Bloomberg. With other Eikon desktop variants [...], Refinitiv is positioned on the low tier or mid tier information desktop segment competing respectively with FactSet or FIS MarketMap (in the low tier) or with [S&P] or FactSet in the mid-tier*". See Question 12, Questionnaire 9 to information services end-customers, Doc ID 6480.

1536 For example, the pricing of Refinitiv's non-premium variants can range from EUR 3,576-13,224 per year. Based on publicly available information, FactSet's desktop service is priced at approximately EUR 12,000 per year (see https://www.wallstreetprep.com/knowledge/bloomberg-vs-capital-iq-vs-factset-vs-thomson-reuters-eikon/, last accessed on 8 June 2020). In its Response to the SO, the Notifying Party states that price is only one of the many parameters of competition in the market for desktop services. According to the Notifying Party, it is impossible to delineate a premium/non-premium segmentation of the market in any meaningful way (Response to the SO, paragraph 126). The Commission notes that premium and non-premium desktop services belong to the same relevant market (see recitals (412) above). In this market, Refinitiv competes against Bloomberg which only offers premium services and against smaller rivals which offer mid-tier and low-tier services. Contrary to the Notifying Party's claim, there are internal documents of the Parties which distinguish between the two types of desktop services ([internal document], Doc ID 4296-515, [internal document], Doc ID 884-538, page 25).

1537 Question 8, Questionnaire 9 to information services end-customers, Doc ID 6480.

trading floor terminals, while the others are the closest competitors in other functions. Bank of America submits "*In the off-trading floor, Factset is the strongest competitor vs. Refinitiv*"; Barclays Bank adds "*In Investment Banking (i.e. capital markets and M&A advisory) it is Factset*"; Bank of Montreal confirms, "*For Front-office sales & trading – Bloomberg [;] For research – S&P CapIQ and Factset [;] For Investment Banking – S&P CapIQ and Factset*"; Unicredit submits "*Non Confidential Reply: Bloomberg is Refinitiv's main competitor in on-trading floor use, S6P CIQ is the competitor in off-trading floor use*".[1538]

(1235) Refinitiv's internal documents also show that today, Refinitiv competes closely not only with [competitor] but also with smaller rivals, particularly [competitor].

(a) A Refinitiv presentation of 13 December 2018 provided a [competitive analysis of Refinitiv] regarding key strategic accounts. The majority of competitive pressure comes from [competitor], but Refinitiv also competes with [competitor] for several end-customers like [large customers].[1539] Indeed, in the [internal document] prepared by Refinitiv [internal division], it is noted that [competitive analysis of Refinitiv] which are elaborated elsewhere in the same document: [competitive analysis of Refinitiv].[1540]

(b) An Oliver Wyman presentation prepared on June 2019 for the Refinitiv board reads: [competitive analysis of LSEG].[1541]

Decrease in quality of rival desktop services

(1236) According to the Non-Horizontal Merger Guidelines, a merger raises competition concerns because of input foreclosure when it would lead to increased prices in the downstream market thereby significantly impeding effective competition.[1542] Throughout the Guidelines, the expression "increased prices" is used as shorthand for the various ways in which a merger may result in competitive harm, including decrease in quality of goods and services.[1543]

(1237) In the present case, a total/partial input foreclosure strategy by the combined entity would lead to a decrease in the quality of desktop services offered by Refinitiv's rivals.

(1238) If the combined entity decided to engage in total/partial input foreclosure regarding LSE venue data, Refinitiv's rivals would only be able to offer a desktop product with no or low-quality access to this data. As a result, their desktop product would be of lesser quality, competing less effectively in terms of data coverage. According to the results of the Commission's market investigation, data coverage is the most important parameter that end-customers take into account when selecting desktop solutions. [1544]

(1239) Moreover, according to the majority of end-customers, the availability of LSE venue data in itself is an important parameter for the selection of desktop services.[1545] This parameter would be altogether missing or significantly compromised for rival

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1538 Question 8, Questionnaire 9 to information services end-customers, Doc ID 6480.
1539 [internal document], Doc ID 4991-31988, page 4.
1540 [internal document], Doc ID 4025, page 11.
1541 Form CO, 5(4) Documents – Document 167, [internal document], page 22.
1542 Non-Horizontal Merger Guidelines, paragraph 47.
1543 Non-Horizontal Merger Guidelines, footnote 8.
1544 Question 8, Questionnaire 9 to information services end-customers, Doc ID 6480.
1545 Question 20.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

desktop solutions, in case the combined entity decided to engage in total or partial input foreclosure involving LSE venue data. In an internal email exchange on 7 January 2020, preparing the answer to a request for information ("RFI") by the Commission, Refinitiv's [senior employee] stated: [competitive analysis of Refinitiv].[1546]

(1240) A total/partial foreclosure strategy by the combined entity is likely to have a significant impact in particular on smaller rivals – but less on Bloomberg, which is the number one player in the relevant market for desktop services. The overall quality of Bloomberg's desktop service will be lower if it does not offer (high-quality) access to LSE venue data. But Bloomberg will likely continue to compete effectively in the market,[1547] offering its premium solution, thanks to the must-have feature of its terminal, the instant messaging solution.[1548,1549] As end-customer Raiffeisen puts it, "[t]*he reason for the majority of our staff us[ing] Bloomberg (BB) Desktop instead of other desktop* [s]*olutions is the Bloomberg Chat - this feature is not available as a stand alone application but it's the most spread chat application in the financial industry especially for non- or semi-automated trading and brokerage*".[1550] End-customer BNP Paribas adds that the "[i]*mportance of Bloomberg's chat community is a strong element for decision*".[1551] In a 2016 interview, the CEO of a desktop services rival, Money.Net stated: "*Bloomberg has a proprietary chat system. It's almost monopolistic. A lot of Wall Street uses it. In a lot of banks, you'll have two people using Bloombergs and they don't look at anything but the chat. They're paying $25,000 a year to be on chat*."[1552]

(1241) The remainder of this Section focuses on the impact of a total/partial input foreclosure strategy on smaller rivals which compete with Refinitiv in mid-tier and low-tier desktop services.[1553]

Impact on smaller rivals regarding new end-customer opportunities

(1242) By pursuing a total/partial foreclosure strategy, the combined entity would be able to exclude the smaller rivals that are competing in non-premium desktop services (e.g.,

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1546 [internal document], Doc ID 6186-6192 (emphasis added).

1547 See also in the same vein, Form CO, paragraph D.503 and Response to the decision pursuant to Article 6(1)(c), paragraphs 157-158.

1548 Several respondents in the Commission's market investigation confirm this. For example, end-customer Raiffe

1549 In its Response to the SO, the Notifying Party notes that other desktop service providers have functionalities that are highly valued by end-customers, e.g., FactSet's scheduling and calculation engine, Cornerstone, which is [competitive analysis of Refinitiv] for the customers who already use it (Response to the SO, Information Services, paragraph 122). However, the Notifying Party did not submit any evidence that FactSet's Cornerstone also drives adoption by new customers in the same way as Bloomberg's instant messaging feature. FactSet's limited market share in desktop services suggests the opposite ([5-10]% in 2019; [5-10]% in 2017-2018).

1550 Question 6.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1551 Question 6.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1552 See https://www.forbes.com/sites/forbestreptalks/2016/05/03/money-net-is-trying-to-kill-off-the-bloomberg-terminal/?sh=36db60a17328 (last accessed on 11 November 2020).

1553 In its Response to the SO, the Notifying Party submits that the combined entity would not have the incentive to engage in an input foreclosure strategy explicitly targeted to smaller rivals. According to the Notifying Party, the combined entity would not have the incentive to incur the costs for such a strategy if Bloomberg was not marginalised (Response to the SO, Information Services, paragraphs 119-120). Contrary to the Notifying Party's claims, the Commission does not refer to an input foreclosure strategy that would target only smaller rivals but not Bloomberg. It considers an input foreclosure strategy by the combined entity targeting all desktop services rivals but leading to foreclosure of smaller rivals and new entrants.

FactSet, S&P, Iress, ISS, DTN, Infront Italia). A foreclosure strategy would encourage new end-customers of desktop services to select Refinitiv's product, to the detriment of smaller rivals. Indeed, as explained above, end-customers are driven by the possibility to access valuable data sets even if they do not license them today. In the event of a total/partial foreclosure strategy, smaller rivals with no or limited access to LSE venue data would not be able to compete effectively for new opportunities with these end-customers.[1554]

(1243) Indeed, in the market investigation, several smaller data vendors raised strong concerns regarding the impact of a total/partial foreclosure strategy on their competitive position in the market for desktop services.[1555]

(a) According to FactSet, "*[d]ata sets such as real time pricing... are critical datasets to many* [of our] *customers. Without these datasets in [our] workstation,... competition in the desktop market would be squashed. This lack of competition would result in fewer choices, increased prices and decreased innovation in the market, to the ultimate detriment of downstream investors*".[1556]

(b) According to IRESS, "[a]*ny arrangements that may be formed to provide* [LSEG venue] *data exclusively over the Refinitiv products will severely impact competition, harm liquidity provision, and customer access to data at fair and reasonable prices*".[1557]

(c) According to DTN, "*we expect to see new packaging from the LSEG that includes proprietary data they won't allow* [competing] *vendors such as DTN to resell. This will put us at a competitive disadvantage to the combined Refinitiv/LSEG.*"[1558]

(d) According to Morningstar, total foreclosure of LSE venue data would lead to "*potential loss of business and potential restrictions which Morningstar would require in order to conduct business*".[1559]

Impact on smaller rivals regarding displacement from existing customer base

(1244) A total/partial input foreclosure strategy would also allow the combined entity to "*get a foot in the door*" with several new end-customers who do not use Refinitiv desktops.

(1245) As explained above, the market investigation shows that in case of total/partial input foreclosure, the majority of end-customers would continue using the services

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1554 In its Response to the SO, the Notifying Party submits that there are examples of successful competitors that can compete effectively even if they do not carry LSE venue data, e.g., Vela (Response to the SO, Information Services, paragraph 127(d)). However, in an internal email exchange, on 27 November 2019, Refinitiv's [senior employee] stated that [competitive analysis of Refinitiv] ("RE: Real Time Feeds", 28 November 2019, Doc ID 4991-74230).

1555 End-customer UniCredit S.p.A. confirms: "[i]*f venues become exclusive to one vendor then this is creating dependencies on a vendor with danger of creating monopolistic behavior… Let's say LSEG decides to exclusively publish LSEG data via Refinitiv, we would be locked in with Refinitiv as data vendor, which is creating de facto a monopoly for the group and excludes Bloomberg and other providers for those activities*". See Question 110, Questionnaire 9 to information services end-customers, Doc ID 6480.

1556 Question 39, Questionnaire 8 to data vendors, Doc ID 6479.

1557 Question 39, Questionnaire 8 to data vendors, Doc ID 6479.

1558 Question 39, Questionnaire 8 to data vendors, Doc ID 6479.

1559 Question 36.1, Questionnaire 8 to data vendors, Doc ID 6479.

provided by their existing desktop provider and add Refinitiv so that they can continue to access LSE real-time venue data.[1560] Over time, for instance at times of contract renewal, Refinitiv could use this opportunity to displace the existing desktop provider and supply all or most of the desktop requirements of the end-customer. Access to commercially sensitive information could help Refinitiv achieve this, as discussed in Section 4.5.7 below.

(1246) "*Foot in the door*" strategies are not uncommon for Refinitiv already today, as regards its desktop services. In an email of 13 November 2019, the [senior employee] at Refinitiv stated: [competitive analysis of refinitiv].[1561]

(1247) The new licensing model that Refinitiv introduced for its desktop service in 2019 would be key to future "*foot in the door*" strategies. In 2018/2019, Refinitiv started offering to some of its high-value end-customers a [description of product and commercial strategy] model ([…]).[1562] Under this model, Refinitiv [description of licensing strategy].[1563] Post-Transaction, Refinitiv could offer a […] model to each end-customer that has added Refinitiv desktop terminals to continue accessing LSE real-time venue data. [description of licensing strategy].

(1248) According to Refinitiv's internal documents, […]. However, as explained in recital (1242) above, Bloomberg offers a "must-have" instant messaging functionality that is difficult to replace. Therefore, Refinitiv's displacement strategies post-Transaction are expected to focus on smaller rivals.[1564] A November 2018 presentation prepared by Oliver Wyman for Refinitiv states: [competitive analysis].[1565] A Refinitiv presentation on […] last updated on 28 February 2019 further illustrates this.[1566] Under the heading […], Refinitiv indicated that [Refinitiv competitive analysis].

(1249) In its response to the SO, the Notifying Party submits that there is nothing anticompetitive about cross-selling different products to existing customers or offering enterprise-wide licensing models for desktop services and other solutions.[1567] However, what the Commission takes issue with is not cross-selling or the enterprise-wide licensing models as such. Rather, it is the displacement of existing smaller rivals, which the combined entity would achieve as a result of "*getting a foot in the door*" post-Transaction, via input foreclosure strategies involving LSE venue data.

The role of multi-homing

(1250) Finally, in its response to the decision pursuant to Article 6(1)(c)[1568] and in its response to the SO,[1569] the Notifying Party argues that the proposed Transaction

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1560 Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469.

1561 [internal document], Doc ID 4991-19108.

1562 [internal document], Doc ID 4794-37644.

1563 See email exchange in June 2019 between Refinitiv employees summarising [internal document], Doc ID 4151-29010.

1564 This is supported also by third-party market analysts which wrote: "[w]*e expect Refinitiv to change its pricing model to an enterprise model, i.e., a fixed price per firm instead of charging on a per user basis. This should help address erosion from terminals being shared or substituted by lower cost competitors in the near term*". See "ExaneBNP LSE Beyond the Terminal 24Feb2020", Doc ID 4188-77255, page 4.

1565 [internal document], Doc ID 4991-52238.

1566 [internal document], 28 February 2019, Doc ID 4794-37644, page 8.

1567 Response to the SO, Information Services, paragraph 123(c) and (d).

1568 Response to the decision pursuant to Article 6(1)(c), paragraphs 138 and 163.

1569 Response to the SO, Information Services, paragraph 123(a).

cannot foreclose the combined entity's rivals in desktop services because end-customers multi-home in this market already today.

(1251) The Notifying Party's argument is not capable of modifying the Commission's assessment that the proposed Transaction would have an impact on effective competition in the market for desktop services. *First*, the Commission notes that less than [a significant percentage] of end-customers source LSE venue data today from more than one desktop services (including Refinitiv).[1570] *Second*, multi-homing in desktop services appears to be in decline. An Oliver Wyman presentation prepared exclusively for Refinitiv, dated January 2018, stated: [competitive analysis of Refinitiv].[1571] An internal Refinitiv presentation last updated in January 2019 [competitive analysis of Refinitiv].[1572] LSEG itself confirms this trend in an internal presentation prepared for the Board of Directors in the context of the Transaction: [internal document].[1573]

Conclusion

(1252) In light of the above considerations, the Commission concludes that an input foreclosure strategy involving LSE venue data would have an impact on effective competition in the market for desktop services, by foreclosing existing rivals. If the combined entity implemented such a strategy, Refinitiv's rivals in dekstop services would only be able to offer a product of lesser quality, which would not allow (high-quality) access to LSE venue data. Refinitiv's rivals would be forced to compete less effectively than today for new opportunities. This would impact in particular Refinitiv's smaller rivals. Moreover, a total/partial input foreclosure strategy would allow Refinitiv to "*get a foot in the door*" with the end-customers that today use rival desktop services. Eventually, this would allow Refinitiv to displace these rivals – in particular the smaller ones – from their existing customer base.

C.1.2. Foreclosure of undertakings entering or expanding in the market for desktop services

(1253) Based on the results of the market investigation, barriers to entry in the market for desktop services are high. A large majority of informative end-customers indicated that they do not expect players to start supplying desktop services in the next 3 years in the EEA.[1574] As end-customer Société Générale puts it, "[t]*here are too many barriers to entry in this market to expect new companies to start competing in the desktop solution in EEA in the next 3 years.*"[1575]

(1254) Notwithstanding these high barriers, some market respondents take the view that entry with tailored (non-premium) solutions targeting niche sub-segments of the desktop services market could be possible. End-customer HSBC states: "[w]*e would not expect a new desktop solution to be launched to match the capability of either*

1570 See recital (1183) above.

1571 [internal document], Doc ID 6186-7213, page 13.

1572 [internal document], Doc ID 4794-26610, January 2019, page 5.

1573 [internal document], 17 July 2019, Doc ID 4296-515, page 19.

1574 Question 13, Questionnaire 9 to information services end-customers, Doc ID 6480. 76% of informative end-customer respondents answer that they do not expect additional companies to start supplying dekstop services in the EEA in the next 3 years. 15% of informative end-customer respondents answer tha tthey do expect additional companies to start supplying dekstop services in the EEA in the next 3 years. The remaining 9% answered that "it depends".

1575 Question 13.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

Bloomberg, Refinitiv or FactSet. The barrier to entry is relatively high and competitors tend to focus on the niche areas".[1576] Data vendors confirm this.[1577]

(1255) One of the most important entry barriers in the market for desktop services is licensing valuable content. Data vendor FactSet explains: "*There is a high barrier to entry in this market. Licensing of source data comes at a high cost, including derived data rights licenses from the venues*".[1578] LSE real-time venue data is an important input for desktop services as explained in Section A.1 above. A total/partial input foreclosure concerning LSE venue data would make it even more difficult for players to enter or expand into the market for desktop services than it already is today. The mere likelihood that the combined entity would carry out a foreclosure strategy post-Transaction may create a strong deterrent effect on potential entrants.[1579]

(1256) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argues that if no entry is anticipated in the market for desktop services in the next 2-3 years, the Transaction cannot negatively impact the prospects of new entrants in this time horizon.[1580]

(1257) However, contrary to the Notifying Party's claims, entry could be possible in the market for desktop services concerning niche segments of the market. The fact that barriers to entry are already high today does not mean that the proposed Transaction cannot make future entry or expansion even more difficult.[1581]

(1258) In its response to the SO, the Notifying Party submits that niche desktop services providers do not need access to LSE venue data to compete effectively in the market. Recent entries into the desktop market show that niche providers focus their offering on specialist functionalities rather than content availability. The Notifying Party cites the examples of Money.Net, TradingView, Quandl, eVestment, Iress, and Quanthouse. However, of the six niche suppliers that the Notifying Party cites, five do offer access to LSE real-time venue data today.[1582] This confirms that in addition to the specialist functionality, desktop service providers need to offer "must-have" content, including LSE venue data.

1576 Question 13.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1577 Question 31, Questionnaire 8 to data vendors, Doc ID 6479. Data vendor FactSet indicates: "[d]*ue to high barriers to entry in the desktop solutions market, FactSet does not believe it likely that there will be additional companies supplying desktop solutions... However, for sub-sections of the desktop market with particular niche solutions, it is more likely to occur...*". S&P notes: "[b]*ased on current trends, it is likely that new entrants will provide custom desktops for clients to use with various data vendors*". Data vendor

1578 Question 198.1, Questionnaire 8 to data vendors, Doc ID 6479.

1579 See Non-Horizontal Merger Guidelines, paragraph 49.

1580 Response to the decision pursuant to Article 6(1)(c), paragraph 162.

1581 This is in line with the Commission's decisional practice, where the Commission has found that input foreclosure could raise even higher barriers in markets where entry/expansion was already very difficult pre-Transaction. See e.g., Commission decision of 29 October 2018, Case M.9019 – *Mars/Anicura*, paragraph 126 and Commission decision of 2 April 2003, Case M.2876 – *Newscorp/Telepiu*, paragraph 126.

1582 Regarding TradingView, Iress, and QuantHouse, see Form CO, Information Services, Annex 292. Regarding Money.Net, see https://moneynet.atlassian net/wiki/spaces/reference/pages/42958850/Market+Data+Coverage (last accessed on 11 November 2020). Regarding Quandl, see https://www.quandl.com/data/XLON/LSE-London-Stock-Exchange-Group-LSE-Adjusted-Stock-Prices (through EDI) (last accessed on 11 November 2020).

(1259) In light of the above considerations, the Commission concludes that an input foreclosure strategy involving LSE venue data would impact effective competition in the market for desktop services, by raising barriers to entry to potential competitors.

C.2. A total/partial foreclosure strategy would require end-customers to pay more for desktop services to be able to access the same data

(1260) The Commission's market investigation shows that if the combined entity decided to exclude rival providers of desktop services from access to LSE venue data, 55% of informative end-customers would purchase additional desktop services from Refinitiv to access the data.[1583] The Commission's investigation also shows that if the combined entity decided to partially foreclose rival providers of desktop services by degrading access to LSE venue data, 33% of informative end-customers would purchase additional desktop services from Refinitiv to ensure fast and high-quality access to the data.[1584]

(1261) This means that a total/partial foreclosure strategy of the combined entity would require end-customers to pay more for desktop services to be able to continue accessing the same data. This increase in the end-customer expenditure for desktop services would come without any additional benefit compared to the way the end-customer accesses the data today.

(1262) In the market investigation, several end-customers state that if they had to add a Refinitiv desktop to be able to access LSEG data, this would result in significant cost increases.[1585] End-customer Nomura states: "*Refinitiv Eikon is not our core terminal offering so there would be a significant uptick... There is also no guarantee that the Eikon solution would be a displacement for the current solution, so the spend could be in addition to our current expenses*".[1586] End-customer Virtu ITG Europe confirms: "*[w]e currently do not use Refinitiv products to access LSEG data, so we would incur additional costs... It's likely that would lead to a significant increase in annual spend...*".[1587]

(1263) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party quantifies the expenditure that end-customers would have to incur if they had to add a Refinitiv desktop to access LSE venue data post-Transaction. The Notifying Party estimates the additional expenditure would amount to [a very small percentage] (based on different sensitivity scenarios). On this basis, the Notifying Party submits that this does not constitute a material effect on the prices paid by end-customers for desktop services.[1588]

(1264) The Commission asked follow up questions on the estimates provided by the Notifying Party[1589] and in the SO, it included updated estimates which showed that the additional expenditure could be much higher for desktop services end-customers.[1590] In the response to the SO, the Notifying Party submits that an input

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1583 Question 21.1, Questionnaire 19 to information services end-customers, Doc ID 6469.
1584 Question 21.3, Questionnaire 19 to information services end-customers, Doc ID 6469.
1585 Question 12, Questionnaire 19 to information services end-customers, Doc ID 6469.
1586 Question 12, Questionnaire 19 to information services end-customers, Doc ID 6469.
1587 Question 12, Questionnaire 19 to information services end-customers, Doc ID 6469.
1588 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2.
1589 RFI 29 reply, questions 34, 38-41 and 46.
1590 SO, Table 59.

foreclosure strategy would increase the desktop expenditure by [a small percentage].[1591]

(1265) In this regard, *first*, the Commission considers that the Notifying Party's estimates do not quantify reliably the short-term harm that end-customers would suffer by adding a desktop service in case of total/partial foreclosure because there is no conclusive evidence about the average number of users per end-customer who are licensed to access LSE venue data through a desktop service. Moreover, it is not possible to compare the additional desktop services cost with the current expenditure, because this last depends on the discounts provided by rival desktop service providers; whether the end-customer multi-homes; etc.

(1266) *Second*, a quantification of the short-term harm that end-customers would suffer by adding a desktop service in case of total/partial foreclosure is not necessary in the Commission's competitive assessment. For the reasons explained in Section C.1. above, the Commission concludes that the foreclosure (be it total or partial) of Refinitiv's rivals would significantly impede effective competition on the desktop services market. Separately, the Commission observes that because many end-customers would have to add a desktop service post-Transaction, and thus their overall expenditure for desktop services would increase. Quantifying this increase is not linked to the Commission's finding of a significant impediment on effective competition in the market for desktop services, as a result of a total/input foreclosure involving LSE venue data.

(1267) In its response to the decision pursuant to Article 6(1)(c) and in its response to the SO, the Notifying Party also submits that the increase in desktop services expenditure as a result of an input foreclosure strategy in LSE venue data does not amount to merger-specific harm for end-customers. An end-customer adding a Refinitiv desktop service would be doing so to retain access to LSE venue data. This is economically equivalent to an increase in the price of LSE venue data, which LSEG could impose regardless of the Transaction.[1592]

(1268) Contrary to the Notifying Party's claims, the Commission takes the view that increase in desktop service expenditure is not equivalent to an increase in price of LSE venue data and in any event, LSEG cannot unrestrictedly increase prices for its venue data already today:

(a) When adding a desktop service product, the end-customer does not simply pay more for the LSE venue data. It pays for the ability to access the LSE venue data and to receive them processed in the required way (e.g., through a curated package for human access and use in the case of desktop services).

(b) As explained in recital (1102) above, the pricing of LSE venue data is subject to regulatory requirements today.

(1269) In light of the above considerations, the Commission concludes that an input foreclosure strategy involving LSE venue data would cause harm to end-customers in the market for desktop services already in the short term. Many of these end-customers would have to pay more for desktop services to be able to continue accessing LSE venue data without any additional benefit compared to the way the end-customers access the data today.

1591 Response to the SO, Information Services, paragraph 68.

1592 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2 and Response to SO, Information Services, Annex 2, page 3.

C.3. Market participants expect the Transaction to have a negative impact on the market for desktop services

(1270) The market investigation confirms the Commission's assessment regarding the impact of the Transaction.

(1271) 75% of informative data vendor respondents expect the proposed Transaction to have a negative impact on the market for desktop services, leading to higher prices; lower-quality products; and reduced innovation.[1593] For example, data vendor IRESS submits that it has "[s]*trong concerns with consolidation of the supply of LSEG data (venue, indices, security reference identifiers) with a top 2 global content creator and distributor of data (refinitiv). Any arrangements that may be formed to provide such data exclusively over the Refinitiv products will severely impact competition, harm liquidity provision, and customer access to data at fair and reasonable rates*".[1594]

(1272) In the same vein, 38% of informative end-customer respondents expect the proposed Transaction to have a negative impact on the market for desktop services, leading to higher prices; lower-quality products; and reduced innovation.[1595] 49% had a neutral view and 13% expect a positive impact.

C.4. Efficiencies

(1273) The Commission notes the Notifying Party's argument that potential efficiencies might arise from the vertical integration of the combined entity post-Transaction. In order to substantiate efficiencies, *first*, the Commission asked the Notifying Party to submit evidence on their various efficiency claims[1596] in RFI 32. The reply to RFI 32 provides quantifications for revenue synergies, but it does not consistently show how potential synergies are passed on to consumers. The RFI 32 reply also bases its projections on assumptions for which supporting evidence is missing. The Commission takes the view that the reply to RFI 32 does not show cumulatively consumer benefits, merger-specificity and verifiability of the submitted efficiencies. The Commission thus considers that the efficiencies claimed by the Notifying Party do not meet the required standards.[1597] *Second*, the Commission notes that elimination of double marginalization was not considered in the RFI 32 reply or in the Parties' internal documents that [internal analysis].[1598]

1593 Question 38, Questionnaire 8 to data vendors, Doc ID 6479. In its Response to the SO, the Notifying Party submits that the 75% of informative data vendor respondents amounts to only 40% of all respondents because several end-customers did not respond to the question or responded "*I do not know"* (Response to SO, Information Services, paragraphs 137ff) . However, the Commission cannot assume that all the end-customers who did not respond to this question lacked any concern about the Transaction. As a result, it based its assessment on the replies of informative data vendors.

1594 Question 39, Questionnaire 8 to data vendors, Doc ID 6479.

1595 Question 19, Questionnaire 9 to information services end-customers, Doc ID 6480.

1596 Response to the decision pursuant to Article 6(1)(c), paragraphs 31, 195, 229, 271, 356, and 423; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, pages 15 and 17; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, page 23.

1597 The Commission recalls that, according to the Non-Horizontal Merger Guidelines, "*When assessing efficiencies in the context of non-horizontal mergers, the Commission applies the principles already set out in Section VII of the Notice on Horizontal Mergers In particular, for the Commission to take account of efficiency claims in its assessment of the merger, the efficiencies have to benefit consumers, be merger-specific and be verifiable. These conditions are cumulative.*" (Non-Horizontal Merger Guidelines, paragraph 53)

1598 See for example [internal document]; and Annex 12, Annex 15, and Annex 17 of RFI 13 reply.

4.5.2.3. Conclusion

(1274) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the combined entity would have the ability and the incentive to foreclose (partially or totally) third-party access to LSE venue data. The Commission concludes that such foreclosure (be it partial or total) would significantly impede effective competition on the market for desktop services.

4.5.3. Total/partial input foreclosure relating to UK equity indices (upstream) and CRTDs (downstream) strengthening dominance in the market for CRTDs

(1275) CRTD providers integrate and provide wide distribution to a variety of financial data products, among which is real-time index data.[1599] Real-time index data is licensed by end-customers to continuously update their applications that rely on real-time index data.[1600]

(1276) LSEG generates and commercialises indices through FTSE Russell. Refinitiv designs and licenses CRTDs, including its flagship product Elektron Real Time. In *Reuters Instrument Codes*, the Commission found that Refinitiv was dominant in the market for CRTDs. The Commission's market investigation in the present case confirms that Refinitiv remains dominant in the downstream market for CRTDs for the reasons explained in Section 4.5.1.B.1 above.

(1277) The combined entity could engage in total foreclosure of rival providers in the market for CRTDs by denying them access to FTSE Russell UK equities indices (such as e.g. the FTSE 100). Put differently, total foreclosure would require the combined entity to become the exclusive redistributor of its own UK equities indices in the market for CRTDs. This would strengthen Refinitiv's dominance in the market for CRTDs. Such foreclosure would harm actual and potential competitors by decreasing the quality of their products – thus reducing their ability to effectively compete in the market – and by increasing entry barriers. This would also force end-customers to incur additional costs to switch to or add a Refinitiv CRTD to access FTSE Russell UK equities index data.

(1278) Partial foreclosure of rival providers in CRTD could be achieved by significantly degrading the quality of the real-time index data licensed through rival data vendors. This partial technical degradation would also serve to strengthen Refinitiv's market power in CRTDs and strengthening its position of dominance, which would generate harm for competitors and end-customers alike. Quality degrading strategies that the combined entity could engage in include:

(a) Providing more timely updates on real-time indices internally to Refinitiv;

(b) Providing better connection technology internally to Refinitiv.

(1279) This non-horizontal effect is considered on a standalone basis, separately from the analogous input foreclosure relating to LSE venue data upstream and CRTDs downstream; hence the ability, incentive and impact assessments of the Commission for this foreclosure strategy are independent of the assessments for the corresponding LSE venue data input foreclosure.

1599 In the analysis of this overlap, "index data" and "indices" are used interchangeably to refer to "real-time index data".

1600 Form CO, Information Services, Annex 281, footnote 9.

4.5.3.1. The Notifying Party's view

(1280) By way of background, the Notifying Party argues that a current shift in the market from active to passive investment (among other developments) has led to increasing demand for innovative index providers. This has in turn encouraged entry into the index licensing market, spurred demand for lower fees, and the rise of self-indexing[1601] by asset managers.[1602] The Notifying Party claims that index providers seek to distribute their indices as broadly as possible to maximise their availability to customers. Achieving wide distribution and recognition helps build and maintain the brand of the index, which in turn becomes a driver of end-customers choosing to manage their assets under that index. The Notifying Party clarifies that this is more important for indices that track assets (e.g. FTSE 100) than those that track rates (e.g. FX benchmarks).[1603]

(1281) The Notifying Party submits that the combined entity does not have the ability or the incentive to foreclose rival CRTD providers, and that even if it did, such foreclosure would have no impact on the market.

A. Arguments related to ability

(1282) *First*, the Notifying Party submits that indices are not an important input for CRTDs. It posits that the fact that a dataset is important for some end-customers does not mean that it is an essential input to a data vendor's offering, as evidenced in the phase I market investigation by the fact that a significant proportion of end-customers would keep their existing CRTD provider(s) and add Refinitiv in the event of foreclosure.[1604] The Notifying -Party asserts that no single source of data is critical to the competitiveness of the data vendors that carry them, evidenced by the small input costs represented by FTSE Russell index data.[1605] In its response to the SO the Notifying Party also submitted that the view that indices are not an important input for CRTDs is also supported by the fact that FTSE Russell UK equity indices instruments account for only [a very small percentage] of customers' total instruments accessed in a given month, and by the fact that the majority of end-customers would keep their existing CRTD provider if it no longer offered FTSE Russell UK equity index data (i.e. only a small subset of end-customers would switch providers). At the same time, the Notifying Party challenges the reliability of the customer switching estimates by arguing that the drafting of the relevant question in the market investigation could introduce a bias in the respondents, thus skewing the results towards confirming the theory of harm put forward by the Commission.[1606]

(1283) *Second*, the Notifying Party submits that FTSE Russell indices are not a "must-have" element for data vendors offering CRTDs. Indeed, data vendors realise a significant margin distributing indices. If index providers held market power in the upstream market, they would negotiate higher prices with data vendors to capture a bigger share of the downstream market.[1607]

1601 Self-indexing refers to the practice of certain customers of building their own versions of well-known indices, thereby avoiding paying licensing fees to the index provider.
1602 Form CO, paragraph D.264.
1603 Form CO, paragraphs D.222 and D.225.
1604 Response to the decision pursuant to Article 6(1)(c), paragraphs 303 and 304.
1605 Response to the decision pursuant to Article 6(1)(c), paragraph 307.
1606 Response to the SO, paragraphs 147-148.
1607 Response to the decision pursuant to Article 6(1)(c), paragraph 308.

(1284) *Third*, the Notifying Party submits that the SO's finding that FTSE Russell UK equity index data are important for end-customers is of limited relevance. Customers make their decision to source data from a CRTD based on the reliability, quality and overall data coverage of the CRTD, not on the availability specific source.[1608] The Notifying Party also indicates that switching costs being high, or indices being "sticky" for certain types of end-customers is not relevant.[1609] The SO emphasises that asset and wealth managers find FTSE Russell UK equity index data important, but these are, according to the Notifying Party, not the primary users of CRTDs. Thus, the Notifying Party submits that the Commission has not demonstrated that on-floor trading customers, who are the primary customers of CRTDs, consider access to FTSE Russell index data as must-have for their operations in the EEA. In addition, according to the Notifying Party, the Commission's evidence does not support the conclusion that FTSE Russell's brand name makes it essential for end-customers seeking exposure to UK equities, and the Commission fails to recognise that the credibility of FTSE Russell's brand is premised on wide distribution and accessibility, which would be undermined by a foreclosure strategy. In addition, the the Notifying Party submits that Commission selectively ignores that 60% of respondents indicate that there are potential alternatives to FTSE Russell's UK equities indices.[1610] Moreover, the Notifying Party highlights that the results of the market investigation suggest that the majority of end-customers do not consider FTSE Russell UK equities indices to be important in their selection of CRTD providers. In addition, over 40% of end-customers who access FTSE Russell real-time index data through a datafeed under a display licence do multi-source this data from Refinitiv and other providers, which shows that the desire to avoid duplicate costs does not impede rivals from competing effectively.[1611]

(1285) *Fourth*, the Notifying Party indicates that the combined entity does not a have a significant degree of market power upstream, where it faces strong competition in the market for index licensing (including in the segment of UK equity indices)[1612], which is a market characterised by customer switching practices, and where index providers also face the threat of self-indexing.[1613] Moreover, the Notifying Party argues that the internal documents used by the Commission do not support a finding of dominance within the meaning of Article 102 TFEU, and instead support that FTSE Russell operates in a a competitive market. Furthermore, according to the Notifying Party, the Commission's finding that FTSE Russell prices reflect market power is incorrect on the basis of the evidence provided by the Notifying Party on the constraints on FTSE Russell. Finally, the Notifying Party argues that the Commission has not provided evidence for its assertion that the ability or desire of end-customers to multi-home is limited by financial and data optimisation questions.[1614]

(1286) *Fifth*, the Notifying Party indicates that no harm can be caused by raising entry barriers when no new entry is expected by the market, and that in any event the

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1608 Response to the decision pursuant to Article 6(1)(c), paragraph 307.

1609 Response to the decision pursuant to Article 6(1)(c), paragraph 306.

1610 Response to the SO, paragraphs 149 ff.

1611 Response to the SO, paragraphs 156 ff.

1612 As explained in recital (451) above, the Notifying Party disagreed with the Commission's proposed market definition for index licensing in its decision pursuant to Article 6(1)(c), as it does not consider it appropriate to segment the market based on geographic exposure.

1613 Response to the decision pursuant to Article 6(1)(c), paragraphs 314, 317, 318 and 323.

1614 Response to the SO, paragraphs 163ff.

combined entity would not have the ability to cause harm by raising entry or expansion barriers, as multi-sourcing is a feature of the CRTD market.[1615]

(1287) Sixth, the Notifying Party submits that the combined entity could not engage in a technical foreclosure strategy because its distribution architecture does not allow for the preferential delivery of data from a latency or quality perspective.[1616] FTSE Russell provides the same technical performance to all clients, and that technical foreclosure would require that it create a separate channel for third-party CRTD providers and actively increase the latency for this channel, in a significant enough way to impact customers' needs to access index data in real-time. Moreover, in its discussion of incentives to engage in technical partial foreclosure, the Commission should not have compared infrastructure modification costs to integration costs; instead, the Commission should have compared infrastructure modification costs with for instance strategy, customer loss and other indirect costs.[1617]

B. Arguments related to incentive

(1288) *First*, the Notifying Party submits that the combined entity has a strong incentive to distribute indices as widely as possible. It advances that the value of indices is their wide distribution and acceptance, which drive a greater demand to employ the index for investment performance or in the construction of index-linked products. In the Notifying Party's view, a foreclosure strategy would devalue FTSE Russell's indices by undermining its reliability and the value that end-customers derive from the indices, which would lead to a feedback effect rendering FTSE Russell indices less attractive, thereby also reducing revenue streams related to passive fund product licenses that clients interested in launching a passive fund linked to a FTSE Russell UK equities index would have to pay.[1618] In its response to the SO, the Notifying Party submits that the Commission does not not lend any weight to the argument that distribution of index data is driven by end-customer demand, which suggests that end-customers' demand for indices is also linked to the data vendors they use and their functionalities. Moreover, the SO does not quantify or consider the potential gain or loss from a foreclosure strategy, and in any event any Vertical Arithmetics exercise would be incorrect given the other Vertical Arithmetics exercises performed elsewhere in the decision. Lastly, the internal documents used to support the view that the combined entity would have the incentive to foreclose fail to provide enough evidence that the combined entity would have such incentive.[1619]

(1289) *Second*, the Notifying Party submits that Refinitiv is not dominant in the downstream CRTDs market. The Commission has not proven that it is dominant because its alleged precedents were only preliminary conclusions, and were in any event contradicted by the conclusions in more recent cases (e.g. *Blackstone / Thomson Reuters*). Moreover, Refinitiv does not meet the test for dominance as it does not enjoy a position of economic strength which enables it to prevent effective competition. Furthermore, its lack of pricing power is evidenced by internal documents, which show that Refinitiv faces competitive pressure from competitors. Lastly, end-customer retention rates and the evidence presented by the Commission

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1615 Response to the decision pursuant to Article 6(1)(c), paragraph 326.
1616 Response to the decision pursuant to Article 6(1)(c), paragraph 333.
1617 Response to the SO, paragraphs 171ff.
1618 Response to the decision pursuant to Article 6(1)(c), paragraphs 338, 340, and 341.
1619 Response to the SO, paragraphs 176ff.

on barriers to entry and expansion are not supportive of the finding that Refinitiv is dominant in CRTDs.[1620]

(1290) *Third*, the Notifying Party explains that LSEG operates under close regulatory scrutiny, which has increased over the years, and regulators would intervene if the combined entity attempted a total/partial foreclosure strategy, also creating reputational harm for the combined entity. [1621]

(1291) *Fourth*, the Notifying Party indicates that customer partnership is key to both Refinitiv and LSEG, who can expect immediate customer backlash in the event of foreclosure by leveraging their large relationships and by credibly threatening to turn to alternative offerings in any of the products offered by the Parties.[1622]

(1292) *Fifth*, concerning partial technical foreclosure, the Notifying Party submits that even if it were possible, the reputational and commercial costs associated with such a strategy would be prohibitive, thereby offsetting any incentives that the combined entity would have to engage in partial technical foreclosure.[1623]

(1293) *Sixth*, the Notifying Party indicates that past examples of vertical integration between index providers and data vendors which did not result in foreclosure showcase that incentives to wide distribution outweigh incentives to foreclose.[1624] Moreover, the Notifying Party indicates that the Commission's examples of small indices which are not broadly distributed, or the changes in pricing policy following acquisitions by data vendors of index businesses (or vice-versa), are not indicative of an incentive to foreclose, particularly when examples of acquisitions which have not led to foreclosure exist (e.g. Bloomberg and BRAIS). Finally, no examples are provided about previous instances of quality degradation following the acquisition of an index business.[1625]

C. Arguments related to impact

(1294) *First*, the Notifying Party submits that a foreclosure strategy would not result in an increase in customers' costs, and that in any event any cost increase would not result in a significant impediment to effective competition. In the Notifying Party's view, the Commission's theory that increasing end-customers' costs should be regarded as harm to competition is speculative and does not articulate any merger-specific harm to competition. This is because from the perspective of the end-customer, the increase in costs by having to buy an additional CRTD to access UK equities index data would be equivalent to FTSE Russell raising licensing costs for data pre-merger. Given that pre-merger LSEG could have raised licensing costs to the same extent, the impact of customers having to add a CRTD to access UK equities index data is non-merger specific. Moreover, the Notifying Party submits that end-customers' switching costs would be reduced if end-customers only switch from their current CRTD provider to Refinitiv for a specific or a limited number of indices, and that CRTD competitors could decrease prices to retain end-customers.[1626] Moreover, the fact that switching away from FTSE Russell is very difficult for end-customers is not relevant, because the test is whether CRTD providers would find it difficult to

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1620 Response to the SO, paragraphs 175 and 27-34.
1621 Response to the decision pursuant to Article 6(1)(c), paragraph 348.
1622 Response to the decision pursuant to Article 6(1)(c), paragraph 350.
1623 Response to the decision pursuant to Article 6(1)(c), paragraph 357.
1624 Response to the decision pursuant to Article 6(1)(c), paragraph 360.
1625 Response to the SO, paragraphs 187ff.
1626 Response to the decision pursuant to Article 6(1)(c), paragraphs 362-365.

continue competing effectively. The Commission is also mistaken in focussing on customers with investment mandates, since this has no bearing on the majority of end-customers.[1627]

(1295) *Second*, the Notifying Party explains that end-customers have their own preferences for a given CRTD provider. These preferences do not hinge on the availability of a given set of indices, and that they would not select Refinitiv over their preferred supplier, which indicates that there is no basis for concluding that availability of FTSE Russell index data gives the combined entity a competitive advantage.[1628]

(1296) *Third*, the Notifying Party indicates that entry barriers will not be raised because FTSE Russell index data is not an important input for the downstream market.[1629]

(1297) *Fourth*, the Notifying Party submits that, since Refinitiv is not dominant in CRTDs, the Transaction cannot lead to a reinforcement of dominance in this market. It further argues that the combined entity would not foreclose undertakings entering into the CRTD market, as no entry is expected, and even if it were, entry is possible as supported by the Commission's findings in *Blackstone / Thomson Reuters*. Moreover, if, as the Commission suggests, the switching costs are high, this indicates that customers are more likely to take no action or add a CRTD than to switch to Refinitiv, which means that entry barriers are not raised by the Transaction.[1630]

(1298) *Fifth*, the Notifying Party submits that the theory of harm that posits that smaller rivals would be harmed is incoherent and unsupported by the evidence. This is because foreclosing smaller rivals would not lead to a significant impediment to effective competition if Bloomberg cannot be marginalised, because end-customers do not consider other providers to be credible competitors. Moreover, the Notifying Party asserts that the Commission's figures on data coverage by different data vendors do not pertain specifically to indices but rather to all kinds of data altogether, and that therefore indicate that exclusive distribution of FTSE Russell UK equities index data is not a meaningful increment to Refinitiv's data coverage offering.[1631]

(1299) *Sixth*, the Notifying Party submits that the Commission has not rebutted the Notifying Party's argument that the the fact that the majority of end-customers would add a CRTD indicates that end-customers are willing to multi-home and have their own preferences for a given provider which do not hinge on singular data set. This is because the majority of end-customers do not consider FTSE Russell UK equities index data to be important in their selection of CRTD providers, because the SO does not substantiate the claim that cost optimisation considerations translate into reduced multi-homing, and because "breadth of data" does not equate data from a single provider.[1632]

(1300) *Seventh*, the majority of market participants do not expect a negative impact in CRTDs. In addition, the one-off migration costs calculated by the Commission should be mitigated over the lifetime of the product, so that the cost increase would be smaller. Finally, the Notifying Party argues that the technical degradation strategy

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1627 Response to the SO, paragraphs 159ff.
1628 Response to the decision pursuant to Article 6(1)(c), paragraphs 369 and 370.
1629 Response to the decision pursuant to Article 6(1)(c), paragraph 372.
1630 Response to the SO, paragraphs 199-200.
1631 Response to the SO, paragraphs 201ff.
1632 Response to the SO, paragraph 207.

would not strengthen Refinitiv's position in CRTDs for the same reasons that it would not do so concerning total foreclosure.[1633]

4.5.3.2. The Commission's assessment

A. Ability to engage in total/partial input foreclosure

(1301) The Commission considers that the combined entity has the ability to engage in total/partial input foreclosure strategies in the market for CRTDs by denying access to FTSE Russell UK equities real-time index data (total foreclosure), or by providing it at worse conditions (partial foreclosure through technical degradation).

A.1 FTSE Russell UK equities real-time index data is an important input for CRTDs

(1302) In its response to the decision pursuant to Article 6(1)(c) and in its response to the SO, the Notifying Party argued that that the fact that a dataset, such as a specific index, is important for some end-customers does not mean that it is an essential input to a data vendor's offering.[1634] However, as this Section argues, the results of the market investigation and the Parties' internal documents indicate that UK equities index data is an important input for CRTDs.

(1303) By way of context, end-customers access indices both in real-time (as real-time index data) and in non-real time (as end-of-day index data, or "EoD"). EoD index data can be accessed in a variety of ways, including via desktop services or direct file transfers from the index provider. For FTSE Russell, EoD index data represented [a very high percentage] of its data sales revenues in 2019, or EUR […], compared to EUR […] in revenues for real-time index data.[1635] CRTDs only carry real-time index data.[1636] In 2018, the number of end-customers accessing FTSE Russell real-time index data through CRTDs was […], while the number of end-customers accessing this data from desktop services during the same year was […].[1637] In this context, it is apparent that CRTDs are not the primary distribution method for FTSE Russell index data.

(1304) However, this does not mean that FTSE Russell UK equities real-time index data is not an important input into the downstream market for CRTDs. While the results of the market investigation confirmed that 66% of end-customers access index data via desktop services, 45% of end-customers also access FTSE Russell index data via CRTDs, either Refinitiv's or its competitors'.[1638] In fact, index providers, data vendors, and end-customers concur that data vendors' products (i.e. both CRTDs and desktop solutions) are an important source of index data for end-customers, as they provide index data from a variety of sources in a homogenised and automatised way, and they are cheaper alternatives for end-customers than individually licensing index

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1633 Response to the SO, paragraphs 208ff.

1634 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 333ff, and Response to the SO, Information Services, paragraphs 145ff.

1635 Response to the decision pursuant to Article 6(1)(c), Annex 1, Figure 1.

1636 For completeness, CRTDs also carry delayed index data, which is real-time index data received in a non-real-time basis (not to be confused with EoD index data)(RFI 40 reply, paragraph 13).

1637 Form CO, Annex 281, Table 1. It must be noted that the number of end-customers for CRTD access is based on enterprise-wide licenses and does not reflect the number of unique end-customers accessing this data under the enterprise license, which can allow multiple individuals to access the data within an organisation.

1638 Figures obtained by calculating the number of unique respondents to each possible response, divided by the number of respondents. Question 120.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

data from multiple providers.[1639] Data vendor Factset explains that "*data vendors perform a vital function of normalizing and aggregating multiple sources of index data. Because of data vendors, end users can leverage the economies of scale at an efficient cost and not need to connect to hundreds of index providers directly. Data vendors are also able to enrich the data with additional value, such as by aggregating the index provider data with different data (such as fundamentals data) for analysis*."[1640]

(1305) For end-customers of CRTDs, wide data coverage is the most important parameter that they take into consideration when choosing CRTD providers.[1641] This indicates that a key component of the competitiveness of a CRTD provider is its ability to have access to a wide library of high-value datasets that are attractive to its customers. In this respect, the ability to provide valuable data over the end-customers' preferred channels is a crucial component to a data vendor's competitiveness. As index provider MSCI explains, "[a]*vailability of index data on various data vendor platforms is a key enabler for client access. Technology plays an increasing role in clients' workflow automation and accessibility of data via their preferred method (for example a data vendor platform) is critically important.*"[1642] Factset elaborates on this by indicating that "[b]*readth of data available in the CRTD, particularly critical datasets, is a key consideration for clients*."[1643]

(1306) The Notifying Party counter-argued that the fact that "wide data coverage" is a key parameter for end-customers when selecting CRTDs does not mean that access to data from specific indices is valued by end-customers.[1644]

(1307) It must be noted that the Commission's argument is not that "wide data coverage" means that a data vendor's competitiveness is determined by the presence of any given index. Instead, the argument presented by the Commission is that access to high-value, "critical" datasets is indeed a differentiating factor among CRTD products. This is supported by the Parties' internal documents which reveal the [competitive factor] as a [competitive analysis of the parties]. Figure 21 below shows that [internal document] are one of Refinitiv's key differentiators. In the same figure, [internal document]. In addition, Refinitiv's [Refinitiv senior employee] also expressed the value of exclusive data and underlined that unique content is part of Refinitiv's product proposition in a public statement concerning the renewal of an agreement with Tradeweb: "*We are very pleased to be able to renew our agreement with Tradeweb and the extended agreement will provide more exclusive content to our customers. This agreement is part of our ongoing commitment to deliver new and unique content as a core foundation of our data analytics and workflow solutions*" (emphasis added).[1645]

Figure 21

[internal document]

Source: [internal document], p. 10, Doc ID 4991-14710.

1639 Question 194, Questionnaire 8 to data vendors, Doc ID 6479; Question 132, Questionnaire 9 to information services end-customers, Doc ID 6480; Question 21, Questionnaire 10 to index providers, Doc ID 6460.

1640 Factset's response to question 194, Questionnaire 8 to data vendors, Doc ID 6479.

1641 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6480.

1642 MSCI's response to question 194, Questionnaire 8 to data vendors, Doc ID 6479.

1643 Factset's response to question 55, Questionnaire 18 to data vendors, Doc ID 6468.

1644 Response to SO, Information Services, paragraphs 149 ff.

1645 [internal document], Doc Id:4257-33774 (emphasis added).

(1308) This is relevant because an input can be important in a downstream market when it is a significant source of product differentiation.[1646] Against this background, the following Sections further elaborate on why FTSE Russell UK equity indices are important to CRTD providers and end-customers.

A.1.1 FTSE Russell UK equities index data are "must-have" for UK equity indices end-customers

(1309) For 70% of informative end-customers, FTSE Russell UK equity indices are considered "*must-have*" for their operations in the EEA.[1647] This is particularly true for asset managers,[1648] who require all major indices (such as the FTSE 100) in order to benchmark against them and to have a range of reputed indices to propose to their clients.[1649] This indicates that for UK equities, FTSE Russell's indices are more important for end-customers than the equivalent indices from competitors.

(1310) While a small number of market participants list a limited number of alternatives for FTSE Russell's UK equity indices,[1650] both market participants and internal documents suggest that brand name is an important element in customer's decision making process when selecting an index product for a specific geographic or asset class exposure. As explained in recital (1313), brand name and reputation are among the most important elements that customers take into consideration when selecting an index, according to data vendors and end-customers. End-customer association COSSIOM explained that "*benchmarks have an advantage because of their brand value (reputation effect) vs. "normal" indices*."[1651] In this context, it is relevant to highlight that FTSE Russell's indices (including UK equities and others) are rated by end-customers and data vendors as having the second strongest brand and reputation among all index providers, only bested by MSCI.[1652] As far as index providers' views go, FTSE Russell's brand and reputation are as strong as MSCI's.[1653]

(1311) Internal documents support the view that brand name is important in the index space. Refinitiv's [senior employee] indicates in an e-mail exchange that [competitive factor],[1654] and LSEG's e-mail from [internal document]

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(1312) Market participants confirmed that FTSE Russell's brand in UK equity indices separates it from the competition, and makes it essential for end-customers seeking exposure to UK equities:

(a) End-customer Credit Agricole indicated that "*it is not possible to interchange directly an index by another one*", listing FTSE 100 as one of the examples of indices that are not interchangeable.[1656]

1646 Non-Horizontal Merger Guidelines, paragraph 34.

1647 Question 134, Questionnaire 9 to information services end-customers, Doc ID 6480.

1648 Approximately [a high percentage] of FTSE Russell's revenues from index licensing in 2018 came […] (see Form CO, Information Services, Table 58).

1649 Minutes of call with COSSIOM, 20 December 2019, paragraph 11, Doc ID 4081.

1650 For instance, the MSCI UK all caps or the S&P DJI UK index suite. Question 122, Questionnaire 9 to information services end-customers, Doc ID 6480.

1651 Minutes of call with COSSIOM, 20 December 2019, paragraph 11, Doc ID 4081.

1652 Question 193.5, Questionnaire 8 to data vendors, Doc ID 6479; question 131.5, Questionnaire 9 to information services end-customers, Doc ID 6480.

1653 Question 20.5, Questionnaire 10 to index providers, Doc ID 6460.

1654 [internal document], Doc ID: 4257-20336

1655 [internal document], Doc ID: 4188-62759

(b) End-customer FinecoBank added that "*FTSE Russell UK and Italian equity indices are essential for UK and Italian brokers/banks/other financial services operating firms.*"[1657]

(c) End-customer Société Générale explained that FTSE 100's reputation is more attractive to investors than comparable, lesser known alternatives: "*On indices brand/reputation are key. Investors (notably retail ones) may know or understand what it a very specific index such as CAC40, FTSE100, MIB30... because those indices have been very visible for decades. They provide a clear understanding of the underlying assets used to create mutual fund. This reassures investors and also allows them to compare the performance of several mutual funds that use the same reference benchmark / index. An index without any reputation or visibility cannot provide this reassurance and this comparability.*"[1658]

(d) Data vendor Factset elaborated on this: "*FTSE Russell indices is a critical dataset for the majority of our clients. In particular, the FTSE 100 is known as critical to any financial professional and is a core indicator of the health of the UK market.*"[1659]

(1313) The Notifying Party argues that the Commission should recognise that the credibility of FTSE Russell's brand is premised on wide distribution and accessibility, which would be undermined by a foreclosure strategy.[1660] The Notifying Party did not provide any evidence to substantiate this claim, and this is also not supported by the results of the market investigation, which as shown above demonstrate that FTSE Russell's indices have a strong brand value. Nothing in the market investigation suggests that FTSE Russell's brand would be devalued if it engaged in a foreclosure strategy in the downstream market for CRTDs, because in such a scenario, FTSE Russell's UK equity indices would continue being available to end-customers through Refintiv's CRTDs (or through other means, including desktop services).

(1314) As to the Notifying Party's argument that the Commission ignores that 60% of respondents indicated that there are potential alternatives to FTSE Russell's UK equitiy indices,[1661] the results of the market investigation concerning the same question highlighted by the Notifying Party indicate that 80% of respondents consider FTSE Russell the number one "must-have" supplier for UK equities index data.[1662] Even if the market identified alternative suppliers, participants clearly consider FTSE Russell to be an essential supplier for customers seeking exposure to UK equities.

(1315) The above confirms that UK equities indices from FTSE Russell are important for end-customers, both because end-customers find them "*must-have*" for their operations, and because of the value of FTSE Russell's brand for end-customers.

1656 Credit Agricole's response to question 120.3, Questionnaire 9 to information services end-customers, Doc ID 6480.

1657 FinecoBank's response to question 30.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

1658 Societe Generale's response to question 125, Questionnaire 9 to information services end-customers, Doc ID 6480.

1659 Factset's response to question 23.2, Questionnaire 18 to data vendors, Doc ID 6468.

1660 Response to SO, Information Services, paragraphs 153ff.

1661 Response to SO, Information Services, paragraphs 154ff

1662 Response to question 134, Questionnaire 9 to information services end-customers, Doc ID 6480.

(1316) Moreover, contrary to the Notifying Party's arguments, it is not correct to conclude that FTSE Russell UK equities index data is not valued by end-customers by comparing it to the total amount of instruments accessed by all Refinitiv customers in a given month.[1663] That FTSE Russell UK equity index data is only [a very small percentage] of all instruments accessed in a month is not suprising given that Refinitiv gives access to thousands of datasets across a myriad of asset classes, instruments, and geographies. In this context, any of the thousands of instruments accessed each month will represent a small percentage of all instruments accessed, and therefore this datapoint does not allow to reach the conclusion that FTSE Russell UK equities index data is not an important input for CRTD providers.

A.1.2 An important number of end-customers choose CRTDs because of the possibility to access FTSE Russell UK equity indices

(1317) A large percentage of end-customers have expressed that access to FTSE Russell UK equity indices is an important consideration when selecting CRTD providers. For 24% of informative end-customers, access to FTSE Russell UK equity index data is either an essential component without which they would not consider a CRTDs provider, or one of the most important elements to take into consideration when selecting a provider. For an additional 22% of end-customers, it is an important element that they take into consideration (although not among the most important elements). In total, 46% of end-customers expressed that FTSE Russell UK equity indices are an important element that they take into consideration when selecting CRTD providers.[1664]

(1318) CRTD providers also expressed that for end-customers the possibility to access indices is important in their decision making processes.

(a) 75% of informative data vendors expressed that the possibility to access specific indices is important for customers of CRTDs, even if the do not use this index set today.[1665]

(b) Data vendor and key competitor Bloomberg expressed that "[g]*iven that FTSE Russell indices are "must-have", we would expect that most customers would not choose to purchase a CRTD by a rival of Refinitiv if the customer was unable to access these indices through the rival datafeed*"[1666]

(c) Factset said that a customer "*would not choose a FactSet CRTD solution if the index data they needed is absent, or if critical datasets they may in future require are absent. Data availability is core to the decision on what CRTD solution to purchase*".[1667]

A.1.3 FTSE Russell UK equities index data are important to CRTD providers

(1319) FTSE Russell distributes its indices widely. The Notifying Party notes that its indices are made available through "*more than [...] vendor and distributor firms globally, including its competitors*".[1668] Results of the market investigation confirmed that

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1663 Response to SO, Information Services, paragraph 147.b.
1664 Question 30.2, Questionnaire 19 to information services end-customers, Doc ID 6469.
1665 Question 55, Questionnaire 18 to data vendors, Doc ID 6468.
1666 Bloomberg's response to question 56, Questionnaire 18 to data vendors, Doc ID 6468.
1667 Factset's response to question 56, Questionnaire 18 to data vendors, Doc ID 6468.
1668 Form CO, paragraph D.918.

most data vendors carry UK equity indices from FTSE Russell,[1669] thus allowing end-customers access to an important dataset through nearly any channel they wish today.

(1320) CRTD providers carry indices based on customer demand.[1670] If an index is requested by end-customers, it is in the best interest of the CRTD provider to provide access to it in order to meet the customer's demand. 67% of data vendors report that FTSE Russell indices are a key part of their offering to their end-customers.[1671] Moreover, in the event of a permanent increase of 5-10% in the redistribution fees of FTSE Russell indices, 75% of data vendors would not stop distributing FTSE Russell indices through their CRTDs.[1672] This is an indication that FTSE Russell indices are an important input for the operations of the majority of data vendors in the EEA.

(1321) As explained in above, for 46% of end-customers, access to FTSE Russell UK equities index data is an important component in their selection of CRTD provider. In this sense, FTSE Russell UK equities index data are an essential component of a CRTD provider's offering, as it is valued by a significant percentage of the downstream demand, and not carrying it would hinder a rival's ability to compete effectively in the downstream market for CRTDs. As data vendor competitor IRESS put it, "*as a global provider we need to provide what the client is looking for, if not, the client will choose another provider*".[1673] This view is shared by all other data vendors, who unanimously expressed that in the event of foreclosure of FTSE Russell UK equity indices, end-customers would react by reducing their purchases of CRTDsfrom them or would switch their CRTD requirements to Refinitiv altogether.[1674]

(1322) A foreclosure strategy is particularly apt to lead to reduced consumption from CRTD providers other than Refinitiv because end-customers typically seek to use a single CRTD provider, or more generally wish to rationalise their data consumption. This is confirmed widely in the market investigation.

(a) Data vendor competitor Factset explains that "*one of the main values of a consolidated real-time datafeed provider is breadth of data, and the ability for clients to leverage economies of scale of the provider for a client to receive all necessary datafeed content from one provider at a competitive price*".[1675]

(b) BNP Paribas expressed that due to the costs of sourcing data, it attempts to optimise its consumption by reducing overlaps in data consumption and by attempting to obtain as much aggregated data as possible.[1676]

(c) Data vendor IRESS expressed that "*typically customers aim to have a single provider to keep integration and maintenance costs as low as possible*."[1677]

1669 As ranked by the majority of data vendors, end-customers and index providers in their response to question 195, Questionnaire 8 to data vendors, Doc ID 6479; Question 133, Questionnaire 9 to information services end-customers, Doc ID 6480; and Question 24, Questionnaire 10 to index providers, Doc ID 6460.

1670 Response to question 44, Questionnaire 18 to data vendors, Doc ID 6468.

1671 Question 197, Questionnaire 8 to data vendors, Doc ID 6479.

1672 Response to question 54, Questionnaire 18 to data vendors, Doc ID 6468.

1673 IRESS' response to question 44, Questionnaire 18 to data vendors, Doc ID 6468.

1674 Question 57, Questionnaire 18 to data vendors, Doc ID 6468.

1675 Factset's response to question 55, Questionnaire 18 to data vendors, Doc ID 6468.

1676 Minutes of call with BNP Paribas, 18 December 2019, paragraph 19, Doc ID 819; BNP Paribas' response to question 11, Questionnaire 19 to information services end-customers, Doc ID 6469.

1677 IRESS' response to question 56, Questionnaire 18 to data vendors, Doc ID 6468.

(d) Financial institution representative Cossiom explained that end-customers who seek to reduce their costs in data are not always successful in doing so,[1678] suggesting that this is a common interest among the companies it represents.

(e) This tendency by end-customers to optimise costs has also been publicly recognised Refinitiv's CEO David Craig, who stated in 2017, "[i]*n a world where our clients are trying to move to fewer suppliers and reduce the complexity in the costs, that's a very valuable part of our offering that only really we can offer it, if you want the full breadth of the data that's actually required.*"[1679]

(1323) In this sense, CRTD providers with the largest data coverage – which as described above was considered the most important element of a CRTD product – provide a more competitive product than those with a more limited offer, all other things remaining equal. By the same token, the fact that a CRTD provider presents a product with wide data coverage *and* unique high value data would serve as a key differentiating factor for end-customers seeking to rationalise and reduce their costs.

(1324) The findings presented in the above Sections directly contradict the Notifying Party's argument that FTSE Russell's UK equity indices are not important inputs for the downstream market for CRTDs.

(1325) The Notifying Party notes in its response to the SO that over 40% of end-cusers who access FTSE Russell real-time index data through a datafeed under a display licence do multi-source data from Refinitiv and other providers, which shows that the desire to avoid duplicating costs does not impede rivals from competing effectively. This fact presented by the Notifying Party does not contradict the Commission's conclusion for the following reasons:

(a) The data point provided by the Notifying Party relates to display licence data only and excludes non-display data, and therefore does not cover the totality of the market.

(b) According to the Notifying Party's data, 60% of end-customers do not multi-source from Refinitiv and other providers. Assuming that end-customers are rational economic actors, this indicates that the majority of the market has already made a choice about their optimal number of providers for CRTD, and the optimal number of sources through which to access FTSE Russell UK equities index data.

(1326) Moreover, the Notifying Party argues in its response to the SO that asset and wealth managers are not the primary customers of CRTDs, and that the Commission has not demonstrated that access to FTSE Russell UK equity indices is important for on-trading-floor customers.[1680] Contrary to this view, the Commission does not need to demonstrate that on-trading-floor customers consider this data to be important in order for it to conclude that it is an important input into the downstream market. Indeed, as explained in this section, 46% of end-customers consider access to FTSE Russell UK equities index data an important element when selecting CRTDs. The market investigation did not address specifically on-trading-floor or off-trading-floor end-customers, but sought the views of all users of indices through CRTDs. Moreover, data vendors do not make a distinction between different types of end-

1678 Minutes of call with COSSIOM, 20 December 2019, paragraph 22.

1679 [internal document], Doc ID: 4698-93982, p.22.

1680 Response to SO, Information Services, paragraphs 149ff.

customers when reporting on the importance of FTSE Russell UK equity indices for end-customers. Therefore, the Commission considers that it is not necessary to draw such a distinction among end-customers in order to conclude that the input is important downstream.

A.1.4 The cost factor of FTSE Russell UK equity indices compared to the CRTD price does not reflect the importance of the data

(1327) The Notifying Party has provided figures indicating that equity indices are a small cost factor in the downstream market for CRTDs. In the Notifying Party's calculations, equity indices redistribution fees represent less than [a very small percentage] of the value of the downstream desktop and feed markets in which they are used.[1681] Moreover, the Notifying Party indicates that Refinitiv spend on FTSE Russell indices represents only [a very small percentage] of its total content spend.[1682]

(1328) However, the fact that the redistribution fees FTSE Russell UK equity indices represent a small input cost is not indicative of the importance that this data has in the CRTD market, as explained in recital (915) above.[1683] Moreover, an input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product.[1684]

A.1.5 Switching away from FTSE Russell UK equity indices is very difficult for end-customers

(1329) According to the Non-Horizontal Merger Guidelines, an input may be important when the cost of switching to alternative inputs is relatively high.[1685] Indices are

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1681 Response to the decision pursuant to Article 6(1)(c), Annex 4, Figure 1.

1682 Form CO, paragraph D.944.

1683 The Commission notes that although UK equities indices are an important input for CRTDs, their licensing costs represent only a limited share of the total CRTD price. As such, the Commission considers that the combined entity would not have the ability to engage in price-based partial foreclosure in the market for CRTDs, by increasing the price of FTSE Russell UK equities index data to rivals. Assuming that UK equities index data redistribution fees represent [a very small percentage] of the cost of a CRTD product, a price increase of [a very high percentage] would be needed to increase downstream prices by 10% (even if fully passed through). In the same vein, assuming that UK equities index data end-customer licence fees represent [a very small percentage] of the cost of a CRTD product, a price increase of [a very high percentage] would be needed to increase downstream prices by 10% (even if fully passed through). However, price increases of this magnitude would no longer qualify as price-based partial foreclosure but rather amount to a total input foreclosure strategy (as the Notifying Party acknowledged in Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, page 6). The Commission also notes that it is unlikely that the combined entity would have the incentive to engage in a price-based partial foreclosure in CRTDs, by restricting access to FTSE Russell UK equities index data. In the market investigation, the majority of informative end-customer respondents indicates that they would stick to their existing CRTD provider, if the combined entity increased the price of UK Equities index data. See Question 33.2, Questionnaire 19 to information services end-customers, Doc ID 6469. The remainder of this Section thus focuses on total input foreclosure and technical partial foreclosure (but not price-based partial foreclosure).

1684 This is consistently confirmed in the General Court's case law (Judgment of 14 December 2005, *General Electric Company v Commission*, Case T-210/01, ECLI:EU:T:2005:456, paragraphs 216, 217, 287-290) and the decisional practice of the Commission (Commission decision of 1 October 2018 in Case M.8985 – *Boeing/KLX*, paragraph 67; Commission decision of 17 November 2010 in Case M.5675 – *Syngenta/Monsanto Sunflower Seed Business*, paragraphs 347 and 350; Commission decision of 14 May 2008 in Case M.4854 -- *TomTom/Teleatlas*, paragraph 198; and Commission decision of 24 April 2007 in Case M.4569 – *GE/Abbott*, paragraphs 30 and 36).

1685 Non-Horizontal Merger Guidelines, [2008] C265/5, paragraph 34.

generally difficult to substitute or to switch away from, as discussed in recital (455). The index industry is portrayed by market participants as "*sticky*", with a data vendor Factset noting that "*once a customer invests in launching a fund, the customer is tied to the benchmark index for such fund to measure and track performance over time. Any switch to another benchmark would require a huge overhaul by the portfolio manager […]*".[1686]

(1330) In addition to the high cost and cumbersome process associated with switching indices, end-customers may not always be able to complete the switching process. Asset managers and other customers often operate under investment mandates, which are a set of instructions laying how the assets under their management should be invested, and which are agreed between asset managers and investors. Asset manager's products typically have specific benchmarks "hardcoded" into the terms of their mandates, and changing these benchmarks may require approval by investors.[1687] This is the case because asset owners select specific investment goals (for instance in terms of geographic exposure, asset volatility, hedging, etc.), for which only a small cluster of indices or even a single index is suitable as a benchmark. Once the investment goals are selected, the asset managers are given the mandate for a period of time, and the asset manager than has no choice but to license the index or indices that are best suitable to meet the investment goals for which they have a mandate.[1688] Indeed, client mandate is the prime parameter taken into account by end-customers when selecting indices, followed by brand name and specific geographic and asset class exposure covered by the index.[1689] This is relevant as certain types of investors can be very hesitant to accept a change in the investment of their funds precisely because of their mandates, and the operational and regulatory hurdles involved in changing them.[1690]

(1331) The fact that indices are particularly difficult to switch for certain customers with mandates is supported by the market investigation.

(a) Data vendor Factset explains that "[o]*nce an asset manager launches a fund, it is tied to the benchmark index for each fund (…) the fund is subject to regulatory disclosure and compliance requirements (for example, in the U.S. they are subject to disclosure requirements in accordance with regulations under the Securities Act). Switching to a different benchmark requires compliance with certain mandates and is costly*".[1691]

(b) Index provider Index Intelligence elaborated on the costs of switching indices, by expressing that "*A switch would need the approval of all clients licensing products from us. Further more calculations and production needs to be adjusted and staff trained. Clients would request historical comparison of our*

1686 Factset's response to Question 191, Questionnaire 8 to data vendors, Doc ID 6479; Question 19, Questionnaire 9 to information services end-customers, Doc ID 6480.

1687 Question 19, Questionnaire 10 to index providers, Doc ID 6460.

1688 "AMC Economics Memo", 18 September 2020, paragraphs 6.1, 6.2 and 6.3, Doc ID 6683.

1689 Question 123, Questionnaire 9 to information services end-customers, Doc ID 6480. In addition, as Societe Generale put it: *"[l]arger banks or asset managers don't really have the choice in the indices that they have to use. They have to use the indices used by the market, and as such be ready to propose products made on the wider range of indices to their clients"* (see question 122.2, Questionnaire 9 to information services end-customers, Doc ID 6480).

1690 Minutes of call with EFAMA/BVI, 17 December 2019, paragraph 13, Doc ID 375.

1691 Factset's "*Letter to the European Commission (Phase 2 Supplemental Letter)*", July 14 2020, p. 3, Doc ID 4196.

products to evaluate the impact. I would estimate the total time to be about 6 FTE months. the cost between 30,000 and 40,000 EUR."[1692]

(c) For other respondents, the process could take considerably more resources and time. Wealth manager Old Mutual indicated that "*there is considerable cost and operational difficulty for firms in switching and it can take a number of years.*"[1693]

(d) Yet for other respondents, switching to other index providers might not be an option. Asset manager NN Group lamented that "*unfortunately our firm cannot switch off benchmark providers, otherwise, so far, the client would select the asset manager who can offer the benchmark provider the client prefers.*"[1694] NN Group also explained that "[a]*sset managers offer benchmark for their clients to position themselves (…) that is one of the main reasons why it is hard to part from the famous index brands*."[1695]

(e) In a memo from AMC Economics commissioned by end-customer RIMES, it is explained that, from the perspective of asset managers, "*LSEG's FTSE Russell division and Refinitiv control a very large number of indices that are the centre of financial models. And while sometimes a highly correlated index may be offered by a sufficiently reputable rival, in general the substitution possibilities seem very limited.*"[1696]

(1332) Considering the above, contrary to what the Notifying Party argues, the fact that indices are "sticky" and that end-customers have high switching costs and encounter additional difficulties when attempting to change index providers is relevant to the competitive assessment. These elements lock in customers to a specific index for a period of time, which is a determinant factor in the selection of CRTDs for a significant number of customers (see Section A.1.3 above).

A.1.6 FTSE Russell has a significant degree of market power in UK equity indices

(1333) The Notifying Party's argument that FTSE Russell does not have a significant degree of market power in the market for UK equity indices is not supported the market investigation or by the Notifying Party's own internal documents.

(1334) In 2019, FTSE Russell had an [a high percentage] market share in the worldwide market for UK equity indices, which has been consistently high since at least 2016. None of FTSE Russell's competitors in UK equity indices have a share of [a small percentage] or higher.[1697] FTSE Russell's position in the UK equity indices market has been characterised by some market participants as monopolistic,[1698] and the position of the top index providers more generally as quasi-monopolistic.[1699] As the

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1692 Index Intelligence's response to question 130.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1693 Old Mutual's response to question 130.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1694 NN Group's response to question 130.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1695 NN Group's response to question 125.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1696 "AMC Economics Memo", 18 September 2020, paragraph 9, Doc ID 6683.

1697 Form CO, Annex 207 (as updated in RFI 13 reply, question 28).

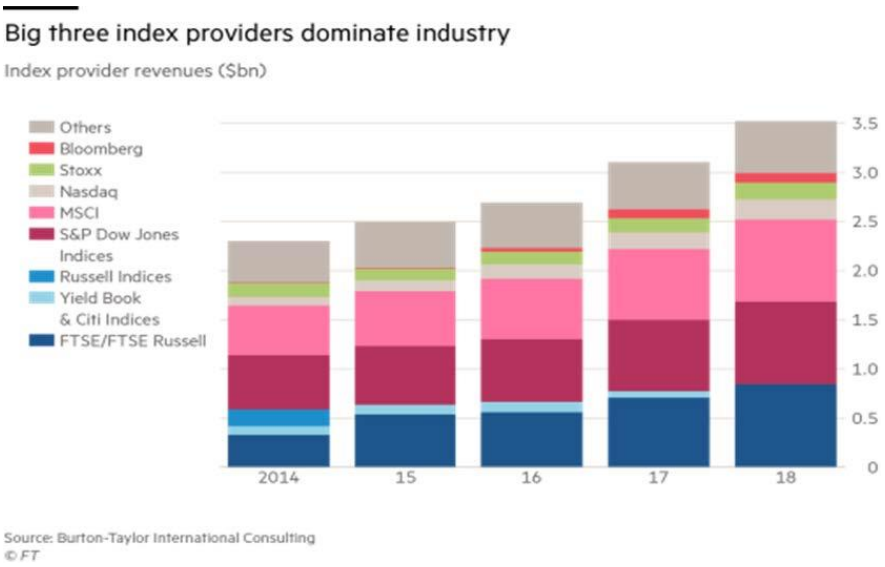
1698 See for instance IRESS' response to Question 210, Questionnaire 8 to data vendors, Doc ID 6479.

1699 See DZ Bank's response to Question 141, Questionnaire 9 to information services end-customers, Doc ID 6480; or DPG's response to question 39, Questionnaire 19 to information services end-customers, Doc ID 6469.

leading brand in UK equity indices, FTSE Russell might be impervious to challenges from smaller index providers in this market. Data management services provider RIMES, explains that "*established index markets are not open to challenge. This is inter alia because of economies of scale, reputation effects (when it comes to index selection, clients tend not to consider alternative providers, instead selecting mainstream and established benchmarks from index providers, notably FTSE Russell, MSCI and S&P,(...) ratchet effects (technical and legal difficulty for an issuer of an index-linked product to change the underlying index), and the concentrated holdings of index-linked products*."[1700]

(1335) In a wider sense, FTSE Russell belongs to a limited group of three index providers who account for the majority of the index licensing market, which many in the industry portray as "an oligopoly".[1701] Figure 22 below shows that MSCI, S&P and FTSE Russell dominate the index licensing market, with a collective a market share of the index licensing market of around 80%.[1702] New players in the industry are more the exception than the norm, and they cannot challenge the position of the top index providers.[1703] Société Générale highlights the difficulties faced by newer or smaller index providers in competing with established brands: [a]*lthough, technically, many indices can be replaced by very comparable alternatives, a newly created alternative cannot provide the required understanding, visibility and comparability (across multiple products from different banks/asset managers) to investors(...) The competition on the index market is very low as established indices/brands cannot really be substituted*."[1704]

Figure 22



Source: Financial Times, "DIY stock indices pose challenge to investment heavyweights", 6 December 2019.[1705]

1700 RIMES Position Paper, 12 August 2020, paragraph 9, Doc ID 5835.

1701 See DPG and DZ Bank's responses to Question 141, Questionnaire 9 to information services end-customers, Doc ID 6480.

1702 "News Summary – 26/11/2018", Doc ID: 4188-78735.

1703 RIMES Position Paper, 12 August 2020, paragraph 10 Doc ID 5835.

1704 Societe Generale's response to question 122.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1705 Available at https://www.ft.com/content/4a5d77de-1786-11ea-9ee4-11f260415385 (last accessed 10 June 2020).

(1336) Internal documents confirm FTSE Russell's strong position in UK equity indices, by highlighting that FTSE is [internal competitive analysis of LSEG][1706], [internal competitive analysis of LSEG].[1707] [internal competitive analysis of LSEG][1708]

(1337) Moreover, the pricing of FTSE Russell regarding its indices reflects LSEG's market power. End-customer DPG expressed that FTSE Russell increases the prices of its indices by 5-10% per annum, and that the top index providers, "*define all rules and have an incredible price defining power*" and are "*very innovative in changing the rules for the usage of data and asking clients to pay more for the same or less service*".[1709] Some end-customers have expressed that FTSE Russell's indices, including its UK equity indices, are the most expensive established indices in the world.[1710] In a letter sent by the UK FCA to benchmark administrators, the FCA expressed that customers of benchmarks face the risk of paying "*excessive fees and charges resulting from high costs of switching, complex licensing arrangements and a preference from customers to use established benchmarks*", and that these high switching costs and the lack of suitable alternatives were "*drivers of market power*".[1711] These quotes indicate that top index providers, such as FTSE Russell, have market power in at least some of the markets where they are active.

(1338) Given the above, FTSE Russell appears to have a significant influence on the conditions of competition in the upstream market of UK equities indices, and consequently on the prices and supply conditions in the downstream market.[1712]

(1339) Furthermore, the ability or desire of end-customers to multi-home is limited by financial and data optimisation considerations. As explained above, end-customers seek to rationalise their consumption of data. For end-customers who value FTSE Russell index data, Refinitiv's CRTDs must be one of their sources for real-time data, and therefore for these end-customers the ability to add additional CRTDs is limited by their desire to limit data costs. This is likely to impede new entrants from effectively competing with Refinitiv's CRTDs, thus giving Refinitiv the ability to raise barriers to entry.

A.1.7 Existing distribution infrastructure does not prevent partial technical foreclosure

(1340) The Notifying Party's argument that existing distribution architecture does not allow the combined entity to provide lower quality data to competitors downstream is not appropriate for the assessment of the combined entity's ability to engage in a partial foreclosure strategy based on technical degradation, because the combined entity is able to change this infrastructure without incurring in prohibitive costs.

(1341) *First*, FTSE Russell's index distribution architecture is currently based on the FTSE Russell Global Distribution System. As it currently exists, this system receives updates to index values and sends them in as close as real time as possible equally to

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1706 [internal document], Doc ID 4188-21336, p. 5.
1707 [internal document], Doc ID 4189-3370.
1708 [internal document], Doc ID 4188-35223, p. 11.
1709 DPG's response to questions 130.1 and 140, Questionnaire 9 to information services end-customers, Doc ID 6480.
1710 Minutes of the call with EFAMA/BVI, 17 December 2019, paragraph 11, Doc ID 375.
1711 Letter by the Financial Conduct Authority to benchmark administrators, 24 January 2020, accessible at: https://www.fca.org.uk/publication/correspondence/portfolio-letter-benchmarks.pdf, last accessed on 8 September 2020.
1712 Non-Horizontal Guidelines, paragraph 35.

all subscribers of that index, regardless of how this index is accessed.[1713] However, other than the cost involved in overhauling the distribution system, there is nothing impeding the combined entity from providing a lower latency to Refinitiv than to other competitors. The Notifying Party's argument that current conditions do not grant the combined entity the ability to foreclose does not stand up to scrutiny when it is the same combined entity who can change the distribution infrastructure in order to enable latency-based discrimination.

(1342) *Second*, the costs in terms of capital and time to change the infrastructure are not prohibitive, such that the combined entity would have the ability to undergo the infrastructure changes if it had the incentive to foreclose. For real-time index data, the combined entity would have to split the existing architecture and create a solution that introduces additional latency for rivals downstream. The Notifying Party calculates that such a project would cost £[…] with an additional £[…] to maintain per annum, and it would take [timeframe] to implement.[1714] There is no reason to assume that these costs and time investments would be too burdensome for the combined entity to implement the infrastructure changes required to engage in a partial foreclosure through technical degradation. As described in recital (944) above, the Notifying Party estimates that it will incur costs of around USD […] (for 2020 only) in order to integrate Refinitiv's business into its own, and thus the costs associated with changing the distribution architecture do not appear to be prohibitive for the combined entity, especially since these costs would not need to be incurred as a standalone project but would be part of the broader integration programme.

(1343) In its responseto the SO, the Notifying Party submitted that integration costs are not the right comparison to assess the combined entity's ability to foreclose competitors downstream and suggests that the Commission include other cost elements in order to ascertain the ability, such as reputational costs, customer loss and other indirect costs.[1715] However, the Notifying Party provided no basis upon which to calculate these additional cost elements. In any event, the Commission considers that the integration costs are appropriate to assess the combined entity's ability to foreclose because they demonstrate the investment that the Notifying Party is willing to make to integrate the Target into its operations. Given that the cost to enable partial technical foreclosure is well within the scope of spending that the Notifying Party has anticipated for the Transaction, the costs the combined entity would have to incur to engage in foreclosure are moderate compared to what is the planned expenditure to integrate the operations of LSEG and Refinitiv.

(1344) Therefore, it is the Commission's view that, the combined entity has the ability to engage in partial foreclosure via technical degradation.

B. Incentive to engage in total/partial input foreclosure

(1345) The Commission considers that the combined entity would have the incentive to engage in a total/partial input foreclosure strategy against CRTD rivals by restricting access to FTSE Russell UK equity indices. Such a strategy would allow the combined entity to strengthen its dominant position in the market for CRTDs, where it is already the leading player and commands a [40-50]% share worldwide.

1713 Response to the decision pursuant to Article 6(1)(c), paragraph 333.

1714 RFI 40 reply, paragraph 9.

1715 Response to the SO, Information Services, paragraphs 173ff.

(1346) The remainder of this Section is structured as follows. Section B.1 recalls the reasons why Refinitiv is dominant in the downstream markets for CRTDs. This suggests that the combined entity would have the incentive to engage in input foreclosure in order to strengthen this dominance. Section B.2 discusses further the combined entity's incentives to engage in total input foreclosure based on Refinitiv's internal documents. Section B.3 focuses on the incentives of the combined entity regarding a possible partial input foreclosure strategy. Finally, Section B.4 turns to three additional arguments of the Notifying Party regarding the combined entity's incentives to engage in total/partial foreclosure: one related to role of regulatory scrutiny, one related to countervailing buyer power and one related to past acquisitions of index providers by data vendors.

B.1. Refinitiv is dominant in the market for CRTDs

(1347) According to the Non-Horizontal Merger Guidelines, the combined entity has higher incentives to engage in total/partial foreclosure the higher its market share is in the downstream market. The greater the market share of the combined entity, the greater the base of sales on which to enjoy increased margins, following a total/partial foreclosure strategy.[1716]

(1348) In its decision in Reuters Instrument Codes, the Commission found that Thomson Reuters (the predecessor of Refinitiv) appeared to be dominant in the worldwide market for CRTDs, after having regarded market shares, barriers to entry and expansion, and the lack of countervailing buyer power.[1717]

(1349) The market investigation in this case confirms that Refinitiv remains dominant in the downstream market for CRTDs given (i) its share of >40% in this market; (ii) the differences between Refinitiv and its competitors and the pricing power that Refinitiv retains despite the aggressive pricing of its competitors; (iii) the high end-customer retention rate of Refinitiv; (iv) how difficult it is for end-customers to switch away from Refinitiv; and (v) the fact that barriers to entry in CRTDs are very high. Each of these elements is discussed in detail in Section 4.5.2.2 B.1.

(1350) In its response to the SO, the Notifying Party contested the Commission's conclusion that Refinitiv is dominant in the market for CRTDs. The Notifying Party's areguments are listed in Section 4.5.3.1.B, and the Commission's response can equally be found in Section 4.5.1.2.B.1.

(1351) Against this background, the combined entity has the incentive to use a total/partial foreclosure strategy to strengthen its dominance in CRTDs and prevent erosion from recent competitive pressures. Eliminating FTSE Russell UK equity indices from rival CRTDs would make it even more difficult for end-customers to leave the dominant Refinitiv solutions and switch to a competing product.

B.2. Total foreclosure

(1352) This Section shows that the combined entity would have the incentive to engage in total foreclosure in CRTDs, regarding FTSE Russell UK equities index data. As explained above, such a strategy would allow the combined entity to strengthen its dominance in the downstream market of CRTDs. Moreover, internal documents

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1716 Non-Horizontal Merger Guidelines, paragraph 43.

1717 See Commission's decision of 20 December 2012, Case AT.39654 - *Reuters Instrument Codes*, paragraphs 33.

suggest that exclusive distribution of unique proprietary content can drive sales in CRTDs.

(1353) *First*, having access to unique or exclusive, high value content can be a driver of sales of CRTDs. As discussed above, having wide data coverage is the most valued criterion for end-customers selecting CRTD providers. As shown in recital (1309), Refinitiv is aware that unique and high value data are sources of product differentiation for CRTDs, and appears to be actively seeking to obtain such types of data (e.g. by exclusively distributing Tradeweb data). In fact, delivering exclusive and unique content seems to be [description of Refinitiv commercial strategy] in an internal Refinitiv document of 2018 concerning the [product] (Figure 23 below). Moreover, as presented in recital (1209), Refinitiv considered already in 2017 [commercial strategy] More widely, having […] is described to be a source of competitive advantage ([description of Refinitiv commercial strategy]) [1718]

Figure 23

[internal document]

Source: [internal document], Doc ID: 4794-31549, p.5.

(1354) *Second*, in addition to serving as a source of product differentiation – and thus potentially driving sales of Refinitiv's CRTDs –, distribution of unique and high value data appears to be an additional source of growth and sales for Refinitiv on its own right. As explained in recital (1210) above, an Olyver Wyman presentation prepared in November 2017 explained that [commercial strategy].[1719] In this line, in a sales guidance document for real-time products produced by Refinitiv, [commercial strategy],[1720] suggesting that [commercial strategy] is an important component of Refinitiv's strategy. This is also supported by Figure 24 below, where Refinitiv lists [commercial strategy].

Figure 24

[internal document]

Source: "Enterprise Real-Time Content Retention", Doc ID: 4991-15348, p.4.

(1355) *Third*, unique data can be a tool to retain and acquire customers. Figure 24 above demonstrates [commercial strategy]. Moreover, in the Olyver Wyman presentation analysed in recitals (1209)ff, it is explicitly stated that […].[1721] These quotes and figures from internal documents further demonstrate the additional value obtained by Refinitiv from having access to unique and high value content, in addition to the potential sale increases that may come as a result.

(1356) *Fourth*, the results of the market investigation indicate that in the event of a total foreclosure strategy, 63% of end-customers would switch all their CRTD requirements to Refinitiv, or would add a Refinitiv CRTD to continue having access to FTSE Russell UK equities index data. If only end-customers who currently access FTSE Russell UK equities index data are taken into consideration, the percentage of end-customers who would switch or add is even higher, at 75%. This also remains the case if the end-customers already accessing FTSE Russell UK equities index data through Refinitiv are removed from the calculation, leading to a switch/add rate of

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1718 [internal document], Doc ID 4850-2754, p. 33

1719 The relevant quote is, [commercial strategy] (Source: [internal document], Doc ID 4992-56, page 74.)

1720 [internal document], Doc ID 4991-21358, p.6, 48-52.

1721 [internal document], Doc ID 4992-56, p. 97.

71%.[1722] These figures suggest that a foreclosure strategy would be successful in achieving an increase in sales of CRTD licenses among end-customers licensing FTSE Russell UK equities index data, which is indicative of an incentive to engage in such foreclosure. The below table summarises the results discussed in this recital:

Table 83

Respondents	% of customers that would switch their CRTD requirements to Refinitiv	% of customers that would add a Refinitiv CRTD	% of customers who would forego access to FTSE Russell UK equities index data
All informative respondents	5%	58%	37%
Only respondents who currently access FTSE Russell UK equities index data	8%	67%	25%
All informative respondents excluding users that access FTSE Russell UK equities index data through Refinitiv	14%	57%	29%

Source: Qualitative assessment of responses to question 34.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

(1357) The above elements assessed in this Section, combined with Refinitiv's dominance in CRTDs, support the Commission's finding that the combined entity would have the incentive to distribute FTSE Russell UK equities index data exclusively through Refinitiv CRTDs, foreclosing rival data vendors in the downstream market.

(1358) In its response to the SO, the Notifying Party submitted that the Commission does not explain why exclusive distribution or opportunity to upsell would merit a strategic change in FTSE Russell's strategy and risk devaluing its brand, and it highlights that it has not quantified or considered the potential gain or loss from a foreclosure strategy in the same way as for the other vertical overlaps (i.e. through a Vertical Arithmetics exercise).[1723]

(1359) However, the Notifying Party has not substantiated the claim that the foreclosure strategy would hinder the wide distribution of FTSE Russell to an extent would materially impact its brand value, nor has it attempted to quantify this brand value loss. As explained above FTSE Russell's brand has considerable traction for UK equities, and UK equity indices will continue being widely available to end-customers through Refinitiv's CRTDs and other means (e.g. desktop services, non-real-time channels) post-Transaction. It will also continue to have broad coverage in specialised and mainstream media that reach the investor community broadly speaking, a factor that contributes to the brand.

(1360) Concerning the Notifying Party's argument that the Commission has not quantified the Notifying Party's profit incentive to engage in a total foreclosure strategy regarding UK equities index data and CRTDs, the Commission is not required to quantify the profit incentive in order to conclude that the combined entity would

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1722 Qualitative assessment of responses to question 34.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1723 Response to the SO, Information Services, paragraphs 176ff.

have the incentive to engage in a foreclosure strategy. In this specific case, it has not been possible to carry out an economic assessment, due to a lack of key information (in particular, FTSE Russell's income for UK equities index data distributed through CRTDs) which according to the Notifying Party is not captured by LSEG's finance system and was for that reason not provided.[1724]

(1361) The Notifying Party submitted that the Commission does not lend any weight to the argument that the distribution of index data is also driven by end-customer demand, which suggests that end-customers' demand for indices is also linked to the data vendors they use and their functionalities.[1725] However, the results of the market investigation do not support this argument by the Notifying Party. When asked what are the most important parameters that they take into consideration when licensing indices, "Availability through chosen data vendor" is the only ranked eighth out of eleven parameters. Parameters that are considered more important include "Brand name", "Client mandate/request", "asset class/geographies covered", and "Price".[1726] In this context, the Commission concludes that, contrary to the Notifying Party's view, demand for indices is not closely linked to the data vendors they use and their functionalities.

B.2.1 The Commission's switching rates are reliable

(1362) The Notifying Party argues that the fact that the majority of end-customers would keep their existing CRTD provider if it no longer offered FTSE Russell UK equity index data supports the conclusion that FTSE Russell UK equities index data are not an important input for CRTD providers to compete effectively. Moreover, the Notifying Party challenges the reliability of the customer switching estimates altogether by arguing that the drafting of the relevant question in the market investigation could introduce a bias in the respondents, thus skewing the results of the market investigation.[1727]

(1363) Contrary to the Notifying Party's argument, the fact that existing customers of competing CRTDs would not switch all their CRTD requirements to Refinitiv in the event of foreclosure does not indicate that the UK equities indices are not important inputs into the market for CRTDs. The switching rates are compatible with the finding that FTSE Russell UK equities index data is an important input for CRTD providers. FTSE Russell UK equities indices are a high-value product that is sought-after by users of CRTDs, and as discussed in section B.2, the presence of high-value datasets can increase the competitiveness of a CRTD provider's offering. Given its value to end-customers, FTSE Russell UK equities index data is a source of product differentiation in the market, which as explained in the Non-Horizontal Merger Guidelines indicates that the input is important for the downstream market.[1728] Therefore, the switching rates are compatible with the conclusion that FTSE Russell UK equities index data is an important input into the downstream market.

(1364) Concerning the Notifying Party's argument regarding the wording of the Commission's questionnaire, it is the Commission's view that the drafting does not

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1724 Paragraph 169, RFI 29 reply: "*The Parties are unable to provide redistribution licence revenues for FTSE Russell UK equity indices. As stated in para. D.245 of the Form CO, [description of LSEG's internal systems]*." In addition, paragraph 137, RFI 29 reply: "*[description of LSEG's licensing policy and system]*".

1725 Response to the SO, Information Services, paragraphs 178ff.

1726 Response to question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.

1727 Response to the SO, Information Services, paragraph 148.

1728 Non-Horizontal Merger Guidelines, paragraph 34.

introduce any potential bias in the respondents. Respondents to the Commission's questionnaire are sophisticated and informed customers operating in the financial services sector. All questions that the Notifying Party alleges to introduce a bias offer market participants the space to explain their replies. This option was amply used by market respondents, demonstrating the informed nature of their contributions. Moreover, as to the Notifying Party's argument that a lower response rate is due to a lack of understanding of the question, it must be clarified that the questions were addressed explicitly to end-customers accessing LSEG data from rivals of Refinitiv. Given that the Questionnaire was sent to all end-customers of the Parties (i.e. not exclusively to FTSE Russell UK equities indices end-customers), the responses to this specific question would naturally be lower than for other more general sections of the questionnaire.

(1365) In addition, even if the Notifying Party's claim that a bias was introduced by virtue of the wording of the questionnaire was correct (*quod non*), given the informed nature of market participants and the possibility to select "Other", there is no indication that this bias would have induced participants to click on responses that increase the percentage of end-customers switching or adding to Refinitiv CRTDs.

(1366) The Notifying Party also submits that the Commission's analysis is based on a limited number of respondents, which are not representative of the Parties' wider customer base.[1729]

(1367) In this respect, the Commission sent the market investigation to more than a 1 004 addressees during the Phase I investigation (May 2020) and to 978 addressees during the Phase II investigation (August 2020). The list of addressees included not only the top end-customers of the Parties, but also a selection of mid-tier and low-tier customers for each of the products under investigation. The contact details were provided by the Notifying Party and were jointly chosen between it and the Commission after long exchanges over the contact details to be provided.[1730] During the Phase II market investigation, the Commission received contributions from 146 end-customers concerning information services. Questions pertaining to FTSE Russell UK equities indices were responded to by 67-77 end-customers. The Commission considers the response rate sufficient to draw conclusions about likely post-merger conduct of end-customers.

B.3. Partial foreclosure

(1368) The analysis developed in Sections B.1 and B.2 above would support that the combined entity also has the incentive to engage in partial input foreclosure based on technical degradation (i.e., offering FTSE Russell UK equities index data with higher latency or otherwise lower quality). In the market investigation, both in a total foreclosure scenario and in a partial foreclosure scenario concerning FTSE Russell index data, more than 56% of end-customers confirmed that they would switch all of their CRTD requirements to Refinitiv or add a Refinitiv CRTD on top of their existing CRTDs from other providers. The percentages of end-customers switching or adding CRTDs are not fundamentally different in the two scenarios.[1731] The combined entity would thus have an incentive to engage in partial input foreclosure for the same reasons as in total input foreclosure.

1729 Response to the SO, Information Services, Annex 1, pages 8ff.

1730 M.9564_IS_Annex_209_Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

1731 Question 33, Questionnaire 19 to information services end-customers, Doc ID 6469.

B.4. Other common considerations regarding incentives for total and partial foreclosure

(1369) This Section discusses three arguments of the Notifying Party regarding the combined entity's incentives to engage in total or partial input foreclosure.

B.4.1. Regulatory scrutiny does not prevent the combined entity from engaging in foreclosure

(1370) The Notifying Party argues that regulatory scrutiny is a sufficient deterrent preventing the combined entity from engaging in a foreclosure strategy.[1732] The current regulatory environment does not support the Notifying Party's argument.

(1371) Indices in the EEA are covered under the Benchmark Regulation ("EU BMR").[1733] Article 22 of the EU BMR establishes that administrators of critical benchmarks shall take adequate steps to ensure that licenses are provided to all users on a fair, reasonable, transparent and non-discriminatory ("FRAND") basis. Critical benchmarks are a limited set of benchmarks which fulfil certain criteria set out in article 20 of the EU BMR.[1734] The EU BMR does not set out any requirements pertaining to the provision of access to non-critical benchmarks on a FRAND basis. None of FTSE Russell's indices (including its UK equity indices) are classified as "critical benchmarks" within the meaning of the EU BMR, and thus FTSE Russell is not required to provide any of indices and benchmarks on a FRAND basis under the EU BMR. The Notifying Party has not indicated that there exists additional regulation, which may require it to provide access to its indices on a FRAND basis.

(1372) The lack of regulatory coverage for index distribution was echoed by participants to the market investigation. Customer association EFAMA/BVI compared indices to venue data to showcase the discrepancies in coverage, and explained that "[i]*ndices fall under the EU Benchmark Regulation which does not impose FRAND obligations unlike the MiFID II regulation that is not applicable to indices.*"[1735] End-customer Flow Traders also shared the concern that index data is not covered by the FRAND obligation: "*Flow Traders has concerns about financial data which is not regulated and which data vendors do not have to provide on a FRAND basis; this includes e.g. reference data, index data, regulatory data and clearing data*".[1736] Moreover, 82% of informative end-customers expressed that existing regulation would not prevent the combined entity from engaging in a foreclosure strategy in the EEA.[1737]

(1373) Some internal documents suggest that FTSE Russell is aware of potential scrutiny by regulators. For instance, […] the competition law counsel for FTSE Russell in 2019 had recommended making FTSE 100 broadly available due to its dominant position in UK equities indices.[1738] However, this awareness of potential anti-competitive behaviour does not detract from the fact that as explained above, sector-specific regulation does not provide sufficient regulatory coverage for users of non-critical

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1732 See recital (1290) above.

1733 Regulation (EU) 2016/1011 of 8 June 2016, on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) No 596/2014, OJ L 171, 29.6.2016, page 1.

1734 There are currently only 5 benchmarks recognised as critical benchmarks under the EU BMR, which are the EURIBOR, the EONIA, the LIBOR, the STIBOR and the WIBOR.

1735 Minutes of call with EFAMA/BVI, 17 December 2019, paragraph 22, Doc ID 375.

1736 Minutes of call with Flow Traders, 18 December 2019, paragraph 30, Doc ID 397.

1737 Question 136.3 of Questionnaire 9 to information services end-customers, Doc ID 6480.

1738 [internal document], Doc Id 4189-3370.

benchmarks. Moreover, even if the combined entity engaged in the foreclosure behaviour explained above, it could continue providing FTSE Russell UK equities indices broadly to the market even if the method of distribution was exclusively through Refinitiv CRTDs.

(1374) Taking into consideration the above, the Commission considers that the fear of an uncertain regulatory reaction would not represent a sufficient deterrent to prevent the combined entity from pursuing in a full or partial foreclosure strategy.

B.4.2 The majority of end-customers would not have the power to retaliate against the combined entity

(1375) The Notifying Party argues that any attempt by the combined entity to foreclose end-customers would be met with immediate customer backlash.

(1376) The Notifying Party's argument is not supported by the results of the Commission's market investigation, which indicate that the majority of customers are not capable of retaliating against the combined entity. When asked about foreclosure of FTSE Russell UK equity indices, 51% of end-customers expressed that they cannot engage in any retaliatory practices in order to prevent or discourage a foreclosure strategy, and a further 20% expressed that they did not know whether they could engage in deterrent behaviour or that such deterrent behaviours would be successful only to a limited extent.[1739] As explained above, many end-customers are locked in to their current indices, which puts them in a disadvantaged bargaining position. As end-customer DPG explains, "a*s our clients use these indices, we have to buy them and have to pay this permanent increasing price. As these indices have a brand, index providers are able to increase prices on a regular basis far away from any inflation rate. Furthermore, they are also able to change the rules for usage as they like".*[1740]

(1377) If anything, the negotiating position of end-customers is expected to deteriorate post-Transaction. End-customer Société Générale affirms that "*the combined entity would be almost immune to most kind of retaliation (such as not being a preferred/recommended vendor for instance) as it would always have some indispensable products or services that can be leveraged to offset cancellations of some other services*".[1741] End-customer BNP Paribas elaborated on this by explaining that the combined entity's position "*would allow them to implement strong non-negotiable terms and conditions as well as non-negotiable cost*".[1742]

(1378) Internal documents suggest that if there is any countervailing buyer power, this would be available only to Refinitiv's larger customers. The alleged countervailing buyer power appears to be concentrated on Refinitiv's [description of Refinitiv customers]: [internal document discussing Refinitiv's customers and business strategy].[1743]

1739 Based on the interpretation of 41 informative responses to question 39, Questionnaire 19 to information services end-customers, Doc ID 6469. The following responses were categorised as "limited or unknown success of retaliatory practices": Barry Callebaut Services, Enel Global, ENI, IHS Markit, Intessa Sanpaolo, Jefferies, Livforsakringssbolaget Skandia, Standard Chartered.

1740 Question 39, Questionnaire 19 to information services end-customers, Doc ID 6469.

1741 Société Generale's response to question 136.4, Questionnaire 9 to information services end-customers, Doc ID 6480.

1742 BNP Paribas' response to question 136.4, Questionnaire 9 to information services end-customers, Doc ID 6480.

1743 [internal document], Doc-ID 4257-34701.

(1379) However, even in the event that this select group of customers would have market power, the fact that a small minority ([0-5]%) of end-customers have a (limited) degree of bargaining power vis-à-vis the combined entity does not mean that the majority of end-customers can engage in retaliatory practices against the combined entity. As explained in recital (1065), customer concentration in itself does not constitute evidence of buyer power.[1744] In addition, the presence of buyer power in this market is unlikely given the difficulties experienced by customers in switching from one CRTD provider to another. Indeed, 87% of end-customers expressed that they would incur in high or very high costs if they were to switch all of their CRTD requirements from one provider to another, whereas 60% said the costs would be high or very high if they were to switch only part of their CRTD requirements.[1745] 70% of end-customers submitted that they had not switched all or part of their CRTD requirements from one provider to another in the past 3 years,[1746] with internal documents […].[1747] In this context, it would not be correct to extrapolate a supposed market power concentrated in a small set of the customer base to the large majority of end-customers of Refinitiv's CRTDs.

(1380) Nor is the Notifying Party's argument that end-customers have multi-product relationships with Refinitiv that they leverage in order to get better terms in their agreements supported by the market investigation results or by the internal documents. The same analysis undertaken in recitals (1220)ff above is equally relevant here.

B.4.3. Acquisitions of index providers by data vendors (or vice versa) have oftentimes led to index policy changes, including foreclosure

(1381) The Notifying Party's argument that past examples of vertical integration indicate that the incentives for wide distribution outweigh the incentives to foreclose competitors downstream is contradicted by the outcome of past M&A activity in the financial services sector.

(1382) *First*, certain end-customers expressed that, while so far major flagship indices do not appear to be exclusively distributed by a single data vendor, there are examples of certain indices which are not widely distributed. Some market participants indicated that Bloomberg's FX benchmark BFIX is not distributed widely in the market,[1748] while another explained that "*Bloomberg and Refinitiv offer their own equivalent of MCSCI major categories – which are exclusive to their feeds*."[1749] The Notifying Party confirmed that there are certain benchmarks in relation to which Refinitiv acts as the administrators which are distributed only through Refinitiv channels (i.e. CRTDs and desktop services, in addition to other non-real time

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1744 See Commission decision of 17 November 2010, Case M.5658 - *Unilever/Sara Lee*, paragraph 599.

1745 Questions 32 and 33 in Questionnaire 9 to information services end-customers, Doc ID 6480.

1746 Question 31, Questionnaire 9 to information services end-customers, Doc ID 6480.

1747 These are [customer] and [customer]. Source: [internal document], Doc ID 4257-34701.

1748 Bloomberg did not confirm that BFIX is available through other data vendors, explaining that "*BFIX rates are available through the Bloomberg Terminal, B-Pipe, and via certain data products offered through Bloomberg Data License. In addition, certain BFIX rates are available on the Bloomberg website (with a delay)*". Bloomberg's Response to European Commission RFI of September 10, 2020, question 1 Doc ID 6674. In its Observations on the Statement of Objections, footnote 25, Bloomberg stated that "*Bloomberg's FX benchmark BFIX is available to license on an enterprise basis*", Doc ID 8373.

1749 Magtia's response to Question 44, Questionnaire 19 to information services end-customers, Doc ID 6469.

datafeeds) and not through other data vendors,[1750] and that a number of proprietary indices which are not distributed through other data vendors.[1751] On this basis, while it would appear that the majority of indices are distributed widely, there are some that are distributed exclusively by a single distributor, creating a precedent of foreclosure behaviour.

(1383) *Second*, market participants described many instances of index policy changes following the acquisition of a data vendor by an index provider (or vice-versa). End-customers described that it was common for indices to change their pricing policy following an acquisition, citing examples such as Barclays Indices (after purchase from Bloomberg), Bank of America Merryl Lynch Indices (after purchase from ICE), or STOXX Indices (after purchase from Deutsche Börse).[1752] As end-customer Société Générale put it, "[a]*ctually we cannot provide an example where an acquisition by a market data vendor of an index vendor venue (or vice versa) has not led to significant price increases or change of commercial models leading to spend increases for consumers without new data being delivered. As valuation of market data vendors or index vendors are very high (price earning ratio above 25, 30, 35...), companies that acquire a market data vendor or an index vendor do all what they can to leverage some indispensable content of the acquired entity, increase prices and have clients to pay for their expensive acquisition*."[1753]

(1384) The Notifying Party replied in its response to the SO that post-merger pricing policy changes are not a meaningful comparator to use, because the Commission does not demonstrate that changes in prices charged to end-customers reflect an intention to foreclose downstream rivals or any leverage of market power.[1754] Contrary to this view, the Commission considers that the pattern of price increases following the acquisition of an index provider does indicate that there is market power given that end-customers continue to license these indices even at an increased cost, and demonstrate a plausible rationale to leverage high value datasets to increase the revenues of merging entities.

(1385) *Third*, the Notifying Party's argument fails to recognise that there has not been a prior combination of a flagship index from one of the top three "oligopoly" index providers (i.e. FTSE Russell's FTSE 100), with the leading CRTD product (Refinitiv's *Elektron*) in recent times. In this context, even a lack of prior examples of foreclosure would be understandable given the uniqueness of the proposition, and thus the absence of examples should not be interpreted as a lack of incentive of CRTD providers to leverage their unique data (which, as discussed above, is part of Refinitiv's strategy in CRTDs). As end-customer BNP Paribas explains, "*[t]here is*

1750 These are the Tokyo Swap Rate, the Romanian Interbank Offered Rate, the Taipei Interbank Bid Rate, the Treasury Markets Association HKD and CNH Spot, the Thai Baht Interest Rate Fixing, the Vietnam Interbank Offered Rate and VNDFX, the TRYFIX, the Palm Oil Complex and the Ukranian Index of Retail deposits. However, the Notifying Party notes that the benchmark rates of central banks are also available on their respective websites. RFI 41 reply, paragraphs 10-11. The Notifying Party indicated in the response to the SO that […] there has been no interest from other data vendors to redistribute the data (Response to the SO, paragraph 190.b). However the Notifying Party has not provided any evidence to substantiate this claim.

1751 According to the Notifying Party, this is because no data vendors have requested to distribute them. RFI 41 reply, paragraph 12.

1752 Question 43, Questionnaire 19 to information services end-customers Doc ID 6469.

1753 Société Générale's response to Question 43, Questionnaire 19 to information services end-customers Doc ID 6469.

1754 Response to the SO, Information Services, paragraph 191.

no exclusive distribution of Indices. However, it would be a commercial advantage and benefit for the redistribution of their indices."[1755]

(1386) The Notifying Party indicates that the fact that end-customers did not indicate that there were prior examples of partial technical foreclosure is evidence that this is not a strategy used in this market.[1756] While the Commission acknowledges that market respondents did not report any examples of partial foreclosure behaviour based on technical degradation, this does not change the Commission's assessment because the absence of past behaviour does not prevent a foreclosure strategy from being implemented in the future.

(1387) In light of the above, the existence of ample examples of index policy changes following the acquisition of an index provider by a data vendor (or vice versa) and the existence of a few examples of potential foreclosure support the plausible existence of an incentive for the combined entity to engage in a foreclosure strategy.[1757]

C. Impact on effective competition

(1388) A total/partial input foreclosure strategy involving FTSE Russell UK equity indices would significantly impede effective competition in the market for CRTDs.

(1389) A total/partial input foreclosure strategy would allow Refinitiv to displace other CRTD competitors, in particular smaller rivals. By foreclosing access to FTSE Russell UK equities index data (an important input), the combined entity would also prevent rivals from competing effectively for new opportunities with end-customers. Finally, a total/partial foreclosure strategy regarding FTSE Russell UK equities index data would raise even higher the barriers to entry that already exist in CRTDs. As a result, a total/partial input foreclosure strategy would have a significant impact on competition in the downstream market for CRTDs, ultimately strengthening Refinitiv's dominant position. [1758] The impact of the foreclosure on rivals would be amplified by the combined entity's ability to use commercially sensitive information to target rivals' customers (Section 4.5.7 for a discussion of these non-coordinated effects).

(1390) In addition, a total/partial input foreclosure strategy would directly harm end-customers of CRTDs in the short term. Many of them would be forced to add Refinitiv CRTDs to continue accessing FTSE Russell's UK equities index data.[1759] As a result, end-customers would have to pay more for CRTDs without receiving any additional benefit compared to the way they access the data today.

1755 BNP Paribas' response to Question 44, Questionnaire 19 to information services end-customers, Doc ID 6469.

1756 Response to the SO, Information Services, paragraphs 196ff.

1757 Non-Horizontal Merger Guidelines, [2008] C265/5, paragraph 45.

1758 The impact of a total and a partial input foreclosure on the quality of the rival CRTDs is not significantly different. In a total input foreclosure scenario, the rival CRTD product is altogether deprived from access to the FTSE Russell UK equity index data. In a partial input foreclosure scenario, the rival CRTD provider would receive the data but in a degraded manner, e.g., with higher latency. This higher latency would be detrimental to a real-time datafeed which needs to transmit data within the shortest timeframe possible. The market investigation confirms that the impact of a total and a partial input foreclosure would be materially the same. In both cases, similar percentages of end-customers will switch to or add Refinitiv's CRTD to continue having access to FTSE Russell index data (64% of informative end-customers in a scenario of total input foreclosure and 56% in a scenario of partial input foreclosure). See above.

1759 Or at least, to continue accessing them with the same latency and quality level that they enjoy today.

(1391) The results of the market investigation confirmed that the proposed Transaction would have a negative impact on the market for CRTDs.

C.1. Strengthening of Refinitiv's dominance and foreclosure of existing rivals by degrading the quality of their CRTDs

(1392) A full or partial input foreclosure strategy would strengthen Refinitiv's dominance in CRTDs. As shown in Table 84 below, Refinitiv is the leading provider of CRTDs. Its closest rival, Bloomberg, has half its share in the EEA, while other competitors have a significantly smaller share in the single digits. Refinitiv is also ranked by end-customers and data vendors as the provider with the largest variety of sources, the best integration into customer's IT systems, and the lowest latency, which as described in recital (1307) above are among the top 4 parameters that end-customers take into consideration when selecting CRTDs.[1760] By all relevant metrics save price,[1761] Refinitiv has a market leading product.

Table 84

Consolidated Real-Time Datafeeds, based on revenues (2019)		
Competitor	**Worldwide**	**EEA**
Refinitiv	[40-50]%	[50-60]%
Bloomberg	[20-30]%	[20-30]%
IHS Markit	[0-5]%	[5-10]%
ICE	[5-10]%	[0-5]%
Activ	[0-5]%	[0-5]%
Six	[0-5]%	[0-5]%
Others[1762]	[10-20]-[20-30]%	[5-10]-[10-20]%
Total	100%	100%

Source: Form CO, Annex 207 (as updated in RFI 13 reply, question 28).

(1393) Participants to the market investigation indicate that there are high barriers to entry in the market for CRTDs.

(a) End-customer Société Generale explains that there are "[t]*oo many barriers to entry (notably redistribution fees to sources/exchanges) to cope with in order to reach comprehensive coverage or at least a coverage of top 50 main exchanges.*" Furthermore, it explains that certain kinds of data are more challenging to collect and distribute for CRTD providers: "*Consolidating OTC content is even more challenging as it requires hundreds of sources to integrate that either may refuse access to their exclusive data (Tradeweb, FX Matching) or to other sources (Banks, Market Makers...) that will not see any benefit at providing access to their data on a real time consolidated feed that does not have a large reach.*"[1763]

(b) 66% of informative data vendors[1764] and 68% of informative end-customers[1765] indicated that they do not expect any additional companies to start supplying

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1760 Questions 53.1, 53.2 and 53.3, Questionnaire 8 to data vendors, Doc ID 6479; Questions 28.1, 28.2 and 28.3, Questionnaire 9 to information services end-customers, Doc ID 6480

1761 Question 53.4, Questionnaire 8 to data vendors, Doc ID 6479; Question 28.4, Questionnaire 9 to information services end-customers, Doc ID 6480.

1762 Each of the players listed among "Others" has a share of 1% or less.

1763 Société Générale's response to question 30, Questionnaire 9 to information services end-customers, Doc ID 6480.

1764 Question 58, Questionnaire 8 to data vendors, Doc ID 6479.

1765 Question 30, Questionnaire 9 to information services end-customers, Doc ID 6480.

CRTDs in the next 3 years in the EEA, which could be an indication that entry barriers or barriers to expansion are already high.

(1394) The existence of high barriers to entry has been corroborated by previous market investigations by the European Commission. In *Reuters Instrument Codes*, the Commission found that there are high barriers to entry into the CRTD market, as their development "*requires a considerable amount of investment and resources as well as contractual relationships with exchanges and other data sources*".[1766]

(1395) Switching costs in CRTDs are also very high. 46% of end-customers expressed that switching costs to switch all CRTD requirements are very significant, while an additional 41% expressed that the costs were significant.[1767] A partial switch of CRTD requirements would also entail high costs, with 26% of end-customers expressing that costs would be very significant, and an additional 40% indicating that costs would be significant.[1768]

(1396) However, this is not to say that switching does not happen, particularly when the CRTD provider does not meet the technical or service requirements of its customers. As data vendor DTN explains, "*consolidate market data feeds are often entrenched in organization and have high switching costs. Only reason to switch is due to technical issues, costs or data needs*."[1769] Data vendor Factset elaborates on this, by highlighting that "*[w]hile switching datafeed providers is more difficult than a desktop solution, it is still something a client would exercise in the right circumstances (i.e., heightened cost or lack of critical content)*."[1770] As described above, FTSE Russell UK equities indices are considered by many end-customers as essential for their operations, and part of their key criteria in selecting a CRTD provider, which could be enough to justify a switch to Refinitiv as the main CRTD provider.

(1397) As discussed above, data coverage is the most important parameter that end-customers take into consideration when selecting a CRTD provider. Therefore, a potential foreclosure strategy would deny rivals and potential entrants of additional data coverage, and thus make their CRTD offering less competitive, effectively raising barriers to entry.[1771]

(1398) The market investigation showed that data vendors and end-customers have serious concerns about the impact of the Transaction in the market for CRTDs.

(a) The concern that the Transaction would have a negative impact in the downstream market for CRTDs was voiced by 71% of informative data vendors.[1772]

(b) 60% of data vendors expressed that if FTSE Russell UK equities indices were no longer available through their CRTDs, customers would switch all or the

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1766 Commission decision of 20 December 2012 in AT.39.654 – *Reuters Instrument Codes*, paragraph 35.

1767 A further 11% indicated that the costs were moderate, and 2% said that there were no costs or they are insignificant. Question 32 in Questionnaire 9 to end-customers, Doc ID 6480.

1768 A further 32% indicated that the costs were moderate, and 2% said that there were no costs or they are insignificant. Question 33 in Questionnaire 9 to end-customers, Doc ID 6480.

1769 DTN's response to question 62.1, Questionnaire 8 to data vendors, Doc ID 6479.

1770 Factset's response to question 41.1, Questionnaire 18 to data vendors, Doc ID 6468.

1771 Non-Horizontal Guidelines, paragraph 49.

1772 The remaining 29% expressed that the impact would be neutral. Question 66, Questionnaire 8 to data vendors, Doc ID 6479.

majority of volumes of CRTD requirements that they source from them to Refinitiv.[1773]

(c) 49% of informative end-customers expressed that they expect the Transaction to have a negative impact in the downstream market for CRTDs.[1774]

(d) Factset expressed concern that the combined entity would make use of its dominant position in CRTDs to "*use these advantages to force customers (either through predatory or non-transparent pricing practices, or by shutting down or slowing access to competitive datafeed solution providers) to license these datasets solely through Refinitiv consolidated real-time datafeed solutions, thereby foreclosing the already strained competition in the consolidated real-time datafeeds market.*"[1775]

(1399) The Notifying Party argues that if, according to the Commission, switching costs are high, this indicates that customers are more likely to take no action or add a CRTD in the event of foreclosure than to switch to Refinitiv and abandon their current provider of CRTDs, indicating that entry barriers are not raised by the Transaction. Contrary to this view, it would be incorrect to assume that entry barriers are not raised as a consequence of the majority of end-customers adding or switching to Refinitiv. Even if end-customers only add Refinitiv, they are still incurring in additional costs which increase their overall spend in data products. Since, as discussed above, end-customers have a tendency to optimise and rationalise data costs, new entrants would find it more difficult to capture the end-customers' available spend on data, which would already be reduced by the adding of a Refinitiv CRTD. The Transaction is therefore likely to lead to an increase in entry barriers.

Impact on smaller competitors

(1400) The Notifying Party argues that even if entry barriers were raised, there would remain sufficient credible downstream competitors, citing Bloomberg as a potential challenger to Refinitiv's CRTDs.[1776]

(1401) The Notifying Party's argument does not take into consideration that Refinitiv's smaller rivals will be particularly affected by a total/partial input foreclosure strategy concerning the CRTD market. Even if Bloomberg were not affected by the strengthening of Refinitiv's dominant position (an assumption for which there is no evidence), smaller competitors would be affected by a total/partial foreclosure strategy, such that competition in the CRTDs market would be impacted negatively.

(1402) Following Bloomberg, the next largest CRTD providers ICE ([0-10]%) and IHS Markit ([0-10]%), are much smaller than either Bloomberg or Refinitiv, and they received significantly lower scores in most of the top selection parameters for customers of CRTDs.[1777] Regarding smaller CRTD providers, the Parties' internal documents suggest that a [competitive analysis of Refinitiv], and a [competitive analysis] of Refinitiv. In an e-mail sent by Refinitiv's [senior employee], [competitors] are characterised as [competitive analysis of Refinitiv], and

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1773 Question 57, Questionnaire 18 to data vendors, Doc ID 6468.

1774 An additional 41% expressed that they expect the Transaction to have a neutral impact, with the remaining 10% expecting the Transaction to have a positive impact. Question 36, Questionnaire 9 to information services end-customers, Doc ID 6480.

1775 Factset's response to question 66.1, Questionnaire 8 to data vendors, Doc ID 6479.

1776 Response to the decision pursuant to Article 6(1)(c), paragraphs 373 and 62-66.

1777 The one exception is that both were marked as offering a better price than both Bloomberg and Refinitiv. Question 28.4, Questionnaire 9 to information services end-customers, Doc ID 6480.

[competitor] is described as having a [competitive analysis of Refinitiv] in revenue.[1778] [1779] Such small competitors with a sub-prime CRTD offering, and those without resources or with very little growth, would be most at risk of being impacted by a foreclosure strategy.

(1403) Most CRTD competitors cannot match the data coverage that Refinitiv offers. The […] presented in Figure 25 show the [competitive analysis of Refinitiv] of Refinitiv and assorted competitors. As can be seen in Figure 25, [competitive analysis of Refinitiv]. As far as geographic coverage goes, as shown in Figure 26, [competitive analysis of Refinitiv].

Figure 25

[internal document]

Source: [internal document], Doc ID 4991-15348, p.61.

Figure 26

[internal document]

Source: [internal document], Doc ID 4991-15348, p.61.

(1404) By denying access to FTSE Russell UK equities index data, the combined entity would effectively reduce the data coverage that each competitor is able to provide to their customers. End customers seek to optimise costs and reduce their data consumption where they can. A reduction in the coverage that each CRTD provider can supply to its customers makes their product proposition less competitive for customers seeking to reduce or optimise their data costs. This is particularly true for high value datasets, such as FTSE Russell UK equities indices, which are accessed by the customers of all CRTD providers who gave informative responses,[1780] and which as discussed in recital (1319) above are very important to end-customers in selecting a CRTD provider.

(1405) Moreover, in the market investigation, several smaller data vendors raised strong concerns regarding the impact of a total/partial foreclosure strategy on their competitive position in the market for CRTDs.

(a) Factset explained that "*one of the main values of a CRTD product is to have as few vendors as possible for cost efficiencies. Failure for a provider to have the capability of providing critical content sets, like FTSE Russell Indices, severely reduces the provider's competitiveness in the CRTD market. If the combined entity acted predatorily and no longer made its data available through FactSet's CRTD in the EEA, FactSet would be forced to severely limit its CRTD solutions in the EEA (and globally) and likely no longer be able to maintain its CRTD business in the EEA. Without access to these vital, sole sourced datasets, FactSet would no longer be able to offer a competitive solution to address basic customer requirements. Competition in what is already a heavily consolidated market for real-time datafeeds would be further reduced to the ultimate detriment of the downstream investor*."[1781]

1778 [internal document], Doc ID 4991-35403.

1779 The Notifying Party explained in its Response to the SO […] (paragraph 204). However, the internal quote shows how the Parties characterise their competitors in internal documents, which is a relevant element for the assessment of the Transaction.

1780 Question 196, Questionnaire 8 to data vendors, Doc ID 6479.

1781 Factset's response to question 57.2, Questionnaire 18 to data vendors, Doc ID 6468.

(b) IRESS stressed that "*FTSE are the only credible brand for UK equities and with Iress having a predominantly UK customer base in the EEA, they are an essential part of our offering of our service and our users could not rely on an alternative.*"[1782]

(c) When asked whether customers would choose to purchase a CRTD from a rival of Refinitiv if they could not access FTSE Russell indices, Morningstar indicated that "[t]*hey would not in the event the data is required from FTSE Russell indices* [and] *cannot be modified by rivals of Refinitiv (credibility).*"[1783]

(1406) A foreclosure strategy would therefore encourage existing and new end-customers of CRTDs to select Refinitiv's product, to the detriment of smaller rivals. This would amount to a significant impediment to effective competition in the market for CRTDs.

(1407) The Notifying Party counter-argues that the fact that a majority of end-customers would not switch to a Refinitiv CRTD, but would instead add a CRTD while maintaining access to their current provider, is an indication that end customers have their own preferences for a given provider which do not hinge on a singular dataset, and that therefore entry barriers would not be raised in the long term.[1784]

(1408) The Notifying Party's argument is dispelled by the evidence presented by the Commission throughout this competitive assessment. *First*, as explained above, a large number of end-customers consider that FTSE Russell UK equities index data is important in their selection of CRTDs. *Second*, end-customers have a tendency towards optimising their data costs, which could lead them to reduce redundant sources of CRTDs if these no longer meet the criteria that interest them. *Third*, end-customers' most valued parameter for CRTD providers is breadth of data, and smaller competitors cannot match Refinitiv's offer. The combined entity can affect the variety of data that competitors in CRTDs have access to by foreclosing access to a high value dataset for them, directly reducing their competitiveness in the CRTDs market. *Fourth*, as a consequence of the above, new entrants in the CRTDs market cannot expect to match Refinitiv's competitiveness in the market as they will not be able to provide access to a high-value dataset, which may discourage entry.

(1409) The Notifying Party also argues that the proposed Transaction cannot foreclose the combined entity's rivals in CRTDs because end-customers multi-home in this market.[1785] However, the ability or desire of end-customers to multi-home is limited by financial and data optimisation considerations. End-customers seek to rationalise their consumption of data. For end-customers who value FTSE Russell index data, Refinitiv's CRTDs must be one of their sources for real-time data, and therefore for these end-customers the ability to add additional CRTDs is limited by their desire to limit data costs. This would represent a significant impediment for rivals to effectively compete with Refinitiv's CRTDs, thus giving Refinitiv the ability to strengthen its dominance in this market.

(1410) The Notifying Party submits that the theory of harm that posits that smaller rivals would be harmed would not lead to a SIEC if Bloomberg cannot be marginalised, because end-customers do not consider other providers to be credible competitors.

1782 Iress' response to question 199.1, Questionnaire 8 to data vendors, Doc ID 6479.

1783 Morningstar's response to question 56, Questionnaire 18 to data vendors, Doc ID 6468.

1784 Response to the decision pursuant to Article 6(1)(c), paragraph 367ff.

1785 Response to the SO, paragraph 207.

However, the fact that other providers have a less competitive offering than Refinitiv - which is considered the top competitor according to the criteria that end-customers value most – does not mean that they are not considered by end-customers as credible competitors. A foreclosure strategy could further depreciate their product offering and thus generate a significant impediment to effective competition through the decrease in their ability to compete in the market for CRTDs.

(1411) In accordance with the above, the Commission concludes that the combined entity's plausible strategy to totally foreclose access to FTSE Russell's UK equity indices to rivals would generate harm for competitors in the downstream market for CRTDs.

Impact of partial technical foreclosure

(1412) Concerning partial technical degradation, a foreclosure strategy would similarly strengthen Refinitiv's position in CRTDs. This is because timeliness in real-time data is a key criterion for CRTD providers, and degrading the quality of the data in this way can affect end-customers' workflows.[1786] Indeed, latency is one of the highest rated parameters for CRTDs according to end-customers (rated fourth, after data coverage, price, and integration with local systems) and data vendors (rated third, after price and data coverage).[1787]

(1413) Data vendors expressed that partial technical foreclosure would lead to customer switching and a loss in the CRTD provider's competitive position. 60% of data vendors indicated that customers would switch all or the majority of volumes of their CRTD requirements from rival CRTDs to Refinitiv in order to ensure fast and high quality access to FTSE Russell UK equities indices. [1788]

(1414) Factset elaborated on the harm that CRTD rivals would incur in the event of a partial technical foreclosure regarding FTSE Russell's UK equities index data: "*failure for a provider to offer timely and quality data will severely hamper a client's workflow, resulting in delays, coverage gaps and mistakes. If the combined entity acted predatorily with respect to its sole-source data and provided FactSet's consolidated real-time datafeeds with slower access or degraded quality data, FactSet would no longer be able to maintain its consolidated real-time datafeed business in the EEA. Without access to these datasets on a real-time basis, FactSet and other consolidated real-time data providers would no longer be able to address basic customer needs, forcing customers to acquire the essential data from the combined entity only. In particular in the real-time datafeed space, quality and speed are critical to a customer's workflow. If slowness or degraded quality data is introduced to the data accessed from the combined entity, FactSet's reputation for quality of service will degrade, operational staffing will increase to support client escalation, and business will be lost as timeliness is a key metric (in particular for consolidated real-time datafeeds) clients often use to evaluate continued (and new) business with distributors.*"[1789]

(1415) In accordance with the above, the Commission concludes that the combined entity's plausible strategy to technically foreclose access to FTSE Russell's UK equity indices to rivals by lowering the quality of its indices or by distributing them with a delay would generate harm for competitors in the downstream market for CRTDs.

1786 Factset's response to question 58.2, Questionnaire 18 to data vendors, Doc ID 6468.

1787 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6480; question 47, Questionnaire 8 to data vendors, Doc ID 6479.

1788 Question 58, Questionnaire 18 to data vendors, Doc ID 6468.

1789 Factset's response to question 58.2, Questionnaire 18 to data vendors, Doc ID 6468.

C.2. A total/partial foreclosure strategy would require end-customers to pay more for CRTDs to be able to access the same data

(1416) A total or partial input foreclosure strategy would lead to higher prices for end-customers, who would have to purchase an additional product from Refinitiv to maintain access to the combined entity's products. The Notifying Party recognises the fact that switching costs for CRTDs are high.[1790] 66% of end-customers confirmed the Notifying Party's claims that switching costs, even for simply adding a CRTD or switching part of the requirements to an alternative provider, are significant or very significant, with a further 32% expressing that the costs would be moderate.[1791] As discussed above, the majority of end-customers would switch to or add Refinitiv as a CRTD provider in case of full (62% of end-customers) or partial foreclosure (56% of end-customers), and thus a majority of customers would be impacted by having to incur significant to very significant costs as a result of the Transaction.

(1417) End-customers who would switch or add Refintiv as a CRTD provider would be harmed in the following ways.

(1418) *First*, end-customers would have to purchase and additional CRTD to access the data from the combined entity. The cost of doing so could be from […] (for a small customer) up to […] (for a large customer) amounting to an additional [a very small percentage] to their total costs for CRTDs.[1792] This is a significant amount of additional costs to have to incur in order to access the data that they already access today from their current provider(s).

(1419) *Second*, in addition to the cost of adding a Refinitiv CRTD, end-customers would be exposed to switching risks, which could range from service interruption to having to maintain multiple sources of CRTDs over a prolonged period of time. End-customers expressed that switching CRTD providers would be a costly and risky endeavour, which could take multiple years to be completed.[1793] Some large end-customers expressed the difficulties of carrying the switch when considering the number of applications, countries and business activities that use the real-time data.[1794]

(1420) *Third*, end-customers with access to a Refinitiv CRTD but who currently do not source FTSE Russell UK equities index data through Refinitiv would also incur in costs to migrate their sourcing of FTSE Russell UK equity indices from a competitor to Refinitiv. The Notifying Party estimated the migration costs that an end-customer would incur if it had to migrate from its current CRTD provider to Refinitiv. In its estimations, large customers would take 3-6 months to migrate with a cost of $90,000-180,000 in one-off migration costs (i.e. 1% of their total CRTD costs), while small/medium customers would take 1 month to migrate, with costs up to $30,000 (i.e. 1-3% of their CRTD costs).[1795]

(1421) *Fourth*, even end-customers who expressed that they would not switch or add, and would therefore forego the combined entity's UK equities indices, might have to temporarily add a Refinitiv CRTD to continue accessing UK equities index data.

1790 Form Co, paragraph D.984.

1791 Question 33, Questionnaire 9 to information services end-customers, Doc ID 6480.

1792 Response to the decision pursuant to Article 6(1)(c), Annex 2 "Duplicative cost theory of harm", page 25, table 2, as updated by RFI 42 reply, Table 2.

1793 Question 32.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1794 Question 32.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1795 RFI 29 reply, paragraph 73.

This might be the case for asset managers, whose mandates might have index licenses for a period of minimum 3 to 5 years,[1796] which would limit their ability to switch away from FTSE Russell indices to prevent foreclosure by the combined entity, and instead being forced to add or switch to a Refinitiv CRTD to continue accessing FTSE Russell real-time index data. An internal e-mail from FTSE Russell Managing Director Kingsley Ford confirms this, when it explains that [discussion of client usage]"[1797]

(1422) *Fifth*, internal documents suggest that the combined entity could have the incentive to upsell products and services to switching customers. In a report prepared for use at LSEG, it is stated that[commercial analysis].[1798] In this sense, end-customers could end up having to spend larger amounts to access FTSE Russell UK equities index data than what the Notifying Party calculated above in recital (1420).

(1423) *Sixth*, not only would the end-customers of the Parties be harmed, but the end-customers' own customers are also likely to be harmed. As indices are often used as benchmarks by asset managers, an increase in their costs could be passed on to the asset managers' own customers. End-customer RIMES explained that "*with investments tied to indexes the value of investments and savings will likely be significantly diminished*".[1799]

(1424) Moreover, respondents to the market investigation expressed that harm to end-customers in the form of additional costs could be expected as a result of the Transaction.

(a) As explained in recital (1400) above, the majority of data vendor respondents and a large number of end-customers expressed concerns that the Transaction could have a negative impact in the downstream market for CRTDs.

(b) Factset explained that "*the combined entity's dominant position in the industry and ownership of vital index data (…) the combined entity will be incentivized to use these advantages to force customers (either through predatory or non-transparent pricing practices, or by shutting down or slowing down access to competitive data providers) to license the indices solely through Refinitiv solutions, thereby foreclosing competition in the industry*".[1800]

(c) End-customer Société Générale echoed a similar concern, asserting that "[t]*here is a risk that the Transaction gives more opportunities to the combined entity to bundle or make exclusive LSEG indispensable or very hard to replace data and capabilities into Refinitiv real time consolidated datafeed solutions as a strategy to force new or extended subscriptions (as already the case today with exclusive Tradeweb or FX Matching content on Refinitiv real time consolidated feeds only).*" [1801]

(d) End-customers expressed that if they had to add a Refinitiv CRTD in order to continue accessing data from the combined entity, the cost might not necessarily be just an additional 4-5% of their CRTD costs as calculated by the combined entity. While a customer expressed that this cost increase could be in

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1796 RIMES Position Paper, 12 August 2020, paragraph 20, Doc ID 5835.
1797 [internal document], Doc ID 4188-62759.
1798 [internal document], Doc ID 4850-2754, p. 32-33.
1799 RIMES Position Paper, 12 August 2020, paragraph 3, Doc ID 5835.
1800 Factset's response to question 210, Questionnaire 8 to data vendors, Doc ID 6479.
1801 Societe Generale's response to Question 36, Questionnaire 9 to information services end-customers, Doc ID 6480.

the range of 1-2%,[1802] others indicated that if they had to add a Refinitiv CRTD, the additional cost could be more than 10% and even up to 20% of their current spend on datafeeds.[1803] This suggests that the impact of foreclosure in CRTDs for venue data and FTSE Russell UK equity indices reinforce one another (as the impact on customers is greater if both are foreclosed than if each is foreclosed individually), with the consequence that end-customers could see their costs to access data increase significantly.

(1425) In its response to the SO, the Notifying Party explained that the Commission is mistaken in focussing on customers with investment mandates, since this has no bearing on the majority of end-customers.[1804] However, as the assessment in this section shows, this is manifestly not the case. The Commission's theory of harm posits that all end-customers would be disadvantaged by the foreclosure strategy, and while it is highlighted that asset managers would be particularly disadvantaged, they are not the sole focus of the Commission's assessment.

(1426) The Notifying Party counter-argues that any impact on end-customers in the market for CRTDs would not be meaningful, and that in any event the Commission's theory is speculative and does not articulate any merger-specific harm to competition, because from the perspective of the end-customer, the increase in costs by having to buy an additional CRTD to access UK equities index data would be equivalent to FTSE Russell raising licensing costs for data pre-merger.[1805]

(1427) The Notifying Party's counterarguments do not change the Commission's conclusion that the harm to end-customers is concrete and merger-specific. The harm that is described in recitals (1420)ff above is based on the Notifying Party's own calculations, as well as the results of the market investigation, which include meaningful responses to questions about potential behaviour of the combined entity post-Transaction. The increase in costs that end-customers will incur results from a lowering of the quality of the offer of their current CRTD supplier and the consequent need to purchase a Refinitiv CRTD, which is equivalent to an increase in prices in the downstream market in the meaning of point 47 of the Non-Horizontal Merger Guidelines[1806] for those same customers. Therefore the harm is meaningful from a competitive perspective, and specific to the Transaction.

(1428) The Commission notes in recital (978) above that potential efficiencies might arise from the vertical integration of the Transaction. In order to substantiate efficiencies, *first*, the Commission asked the Notifying Party to submit evidence on their various efficiency claims[1807] in RFI 32. The RFI 32 reply provides quantifications for revenue synergies, but it does not consistently show how potential synergies are passed on to consumers. The reply to RFI 32 also bases its projections on assumptions for which supporting evidence is missing. The Commission considers

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1802 European Central Counterparty's response to Question 18, Questionnaire 19 to information services end-customers, Doc ID 6469.

1803 See responses by Banca Monte Dei Paschi Di Siena, Daiwa, Intelligent Financial Systems, Kepler Cheuvreux, Renta 4 Banco and Unicredit to question 18, Questionnaire 19 to end-customers, ID 6469.

1804 Response to SO, paragraphs 159ff.

1805 Response to the decision pursuant to Article 6(1)(c), paragraphs 362-365.

1806 Paragraph 47 of the Non-Horizontal Merger Guidelines reads: "*In general, a merger will raise competition concerns because of input foreclosure when it would lead to increased prices in the downstream market thereby impeding effective competition*".

1807 Response to the decision pursuant to Article 6(1)(c), paragraphs 31, 195, 229, 271, 356, and 423; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, pages 15 and 17; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, page 23.

that the reply to RFI 32 does not show cumulatively consumers benefits, merger-specificity and verifiability of the submitted efficiencies and, therefore considers that the efficiencies claimed by the Notifying Party do not meet the required standard.[1808] *Second*, the Commission notes that elimination of double marginalization was not considered in the Notifying Party's reply to RFI 32 or in the Parties' internal documents that […].[1809]

C.3 Market participants expect the Transaction to have a negative impact on the market for CRTDs

(1429) For the reasons explained in Section 4.5.1.C.1 above, the market investigation confirms the Commission's assessment regarding the impact of the Transaction. 51% of informative data vendor respondents and 49% of informative end-customer respondents expect the proposed Transaction to have a negative impact on the market for CRTDs, leading to higher prices; lower-quality products; and reduced innovation.[1810]

4.5.3.3. Conclusion

(1430) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would strengthen Refinitiv's dominant position with respect to the CRTDs by giving the combined entity both the ability and the incentive to foreclose (partially or totally) third-party access to FTSE Russell UK equities index data. The Commission concludes that such foreclosure would significantly impede effective competition on the CRTDs market.

4.5.4. Total customer foreclosure relating to UK equity indices (upstream) and CRTDs (downstream)

(1431) CRTDs can serve as means for index providers to ensure wide distribution of index data.

(1432) LSEG generates and commercialises indices through FTSE Russell. Refinitiv designs and licenses CRTDs, including its flagship product Elektron Real Time.

(1433) Total foreclosure of rival index providers would require the denial of access to Refinitiv's CRTDs as a customer of FTSE Russell's rivals' UK equities index data. Put differently, total foreclosure would require the combined entity to no longer distribute competitors' UK equities index data through its CRTD products.

4.5.4.1. The Notifying Party's view

(1434) The Notifying Party submits that a customer foreclosure strategy is unlikely to marginalise or exclude rival index providers, given that Refinitiv is not an important customer with a significant degree of market power in a downstream market. In the downstream market where Refinitiv has a significant share (CRTDs), Refinitiv is a

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1808 The Commission recalls that, according to the Non-Horizontal Meger Guidelines, "*When assessing efficiencies in the context of non-horizontal mergers, the Commission applies the principles already set out in Section VII of the Notice on Horizontal Mergers In particular, for the Commission to take account of efficiency claims in its assessment of the merger, the efficiencies have to benefit consumers, be merger-specific and be verifiable. These conditions are cumulative.*" (Non-Horizontal Merger Guidelines, paragraph 53)

1809 See for example [internal document] Doc ID 4991-55941; [internal document] Doc ID 4794-39566; and Annex 12, Annex 15, and Annex 17 of RFI 13 reply.

1810 Question 66, Questionnaire 8 to data vendors, Doc ID 6479 and Question 19, Questionnaire 19 to information services end-customers, Doc ID 6469.

small distributor of indices, accounting for only [a small percentage] of FTSE Russell's index revenue in 2018.[1811]

4.5.4.2. The Commission's assessment

(1435) *First*, the Commission considers that the combined entity would lack the ability to foreclose access to an important customer downstream, thereby foreclosing competitors in UK equities indices, for the following reasons:

(a) CRTDs are not a major source of distribution for UK equity indices. For FTSE Russell, the market leader for UK equities indices, Refinitiv accounts for only [a small percentage] of FTSE Russell's index revenue in 2018.[1812] Post-Transaction, there would remain alternative means for index producers to distribute their UK equity indices, such as through other CRTDs, desktop services, or directly to end-customers.

(b) The results of the market investigation indicated that CRTD providers carry indices based on customer demand.[1813] Moreover, end-customers expressed that access of an index through their preferred data vendor was among the least important elements that they consider when selecting indices (ranked 8 out of 11 possible parameters).[1814] This shows that demand for indices is independent of the means for their delivery to end-customers. In this context, nothing indicates that if Refinitiv stopped licensing rival's UK equity indices, end-customers would also diminish their demand for UK equities indices. Therefore, competitors upstream would continue having sufficient economic alternatives to sell their output.

(1436) *Second*, the Commission considers that since the combined entity would lack the ability to engage in a customer foreclosure strategy, there is no need to assess whether the combined entity would have the incentive to do so. Nevertheless, the Commission considers that the combined entity would lack the incentive to pursue a customer foreclosure strategy for the following reasons:

(a) End-customers consider that wide data coverage is the most important parameter of competition for CRTD providers.[1815] By refusing to carry UK equities indices from rivals upstream, Refinitiv would be willingly making its CRTD product less competitive in the downstream market.

(b) As explained above, demand for indices is independent of the means through which they are distributed. Given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by Refinitiv's CRTDs, it is unclear what Refinitiv can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, Refinitiv would be foregoing the fees payable by end-customers for access to these indices through its CRTD, further lessening any incentive to engage in foreclosure.

(1437) *Third*, the Commission considers that since the combined entity would lack both the ability and incentive to engage in a customer foreclosure strategy, there is no need to assess what the impact of such a strategy would be. Nevertheless, if the combined

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1811 Form CO, paragraph D.945.
1812 Form CO, paragraph D.945.
1813 Response to question 44, Questionnaire 18 to data vendors, Doc ID 6468.
1814 Response to question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.
1815 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6480.

entity engaged in a customer foreclosure strategy regarding CRTDs and indices, such foreclosure would not lead to a significant impediment to effective competition in the market for UK equities indices because index providers do not expect it to be the case. 62% of informative index providers expressed that if the combined entity stopped distributing their indices through their distribution channels, this would not have a significant impact, and that they would retain other means to access end-customers (e.g. alternative data vendors, direct connection with end-customers via e-mail or FTP, etc.)[1816]

(1438) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on the upstream market for UK equities index data, following a customer foreclosure strategy in the market for CRTDs.

4.5.5. Total/partial input foreclosure relating to UK equities indices (upstream) and desktop services (downstream)

(1439) Desktop services providers integrate and display index data as part of their desktop services. As explained above, index data accessible via desktop services comprises of both End-of-day ("EoD") index data, as well as real-time index data. The remainder of this Section focuses on EoD index data, which represents [a very high percentage] of LSEG's revenues in this space.[1817]

(1440) The Notifying Party generates and licenses indices from FTSE Russell. The remainder of this Section focuses on FTSE Russell UK equities index data.[1818]

(1441) Total foreclosure of Refinitiv's rivals in desktop services would require the denial of access to FTSE Russell UK equity indices. Put differently, total foreclosure would require the combined entity to become the exclusive redistributor of FTSE Russell UK equity indices at least in terms of desktop services.

(1442) Partial foreclosure of Refinitiv's competing providers in desktop services could be achieved by significantly degrading the quality of the FTSE Russell UK equities indices licensed through rivals. Quality degrading strategies that the combined entity could engage in include:

(a) Providing more timely updates on upcoming feed changes internally to Refinitiv;

(b) Regarding any changes on the FTSE Russell UK equities data feed, providing additional instructions internally to Refinitiv.

(1443) This non-horizontal effect is considered on a standalone basis, separately from the analogous input foreclosure relating to LSE venue data upstream and desktop services downstream; hence the ability, incentive and impact assessments of the Commission for this foreclosure strategy are independent of the assessments for the corresponding LSE venue data input foreclosure.

1816 Based on the assessment of the qualitative responses to Questionnaire 10 to index providers, question 29.3, Doc ID 6460.

1817 See recital (1439) above.

1818 LSEG is already vertically integrated in the sense that it generates UK equities indices (upstream) and offers desktop services (downstream) through Mergent. The remainder of this Section focuses on foreclosure concerning FTSE Russell's UK equities indices and Refinitiv's desktop solutions, which is merger-specific.

4.5.5.1. The Notifying Party's view

(1444) The Notifying Party submits that the combined entity does not have the ability or the incentive to foreclose rival desktop services providers, and that even if it did, such foreclosure would have no impact on the market.

A. Arguments related to ability

(1445) *First*, the Notifying Party submits that indices are not an important input for desktop services. It posits that certain end-customers place significant value on the functionality associated with desktop solutions, which allow them to perform their day-to-day business activities. The Notifying Party indicates that the fact that indices are predominantly distributed through desktop solutions does not confirm that indices from a singular provider are an important input into desktop services. It further states that the fact that a dataset is important for some end-customers does not mean that it is an essential input to a data vendor's offering, as evidenced by fact that a significant proportion of end-customers would keep their existing provider(s) and add Refinitiv in the event of foreclosure. The Notifying Party also asserts that end-customers have multiple ways of accessing index EoD data (including directly from FTSE Russell), which cannot indicate that FTSE Russell index data is a critical component of a particular desktop service.[1819] Moreover, it submits that the fact that customers value "wide data coverage" cannot be construed as an indication that data from a singular provider is important.[1820]

(1446) *Second*, the Notifying Party submits that index providers face strong competition, even for the UK equity indices, and that they need to deliver value to their customers to maintain the relevance of their benchmarks and to retain customers or win new business.[1821]

(1447) *Third*, the Notifying Party indicates that the combined entity would not have the ability to cause harm by raising entry or expansion barriers, as multi-sourcing is a feature of the desktop services market and as no harm can be caused by raising entry barriers when no new entry is expected by the market.[1822]

(1448) *Fourth*, the Notifying Party explains that the combined entity will have no ability to foreclose smaller rivals because they are not dependent on FTSE Russell index data. This is evidenced by the fact that FTSE Russell indices represent a very small proportion of the data sources used by rivals, and because it is licensed only by a small fraction of users of smaller competitor desktops.[1823]

(1449) *Fifth*, the Notifying Party submits that the combined entity could not engage in a partial technical foreclosure strategy because its distribution architecture does not allow for the preferential delivery of data from a latency or quality perspective.[1824] Moreover, the Notifying Party submits that the Commission's comparison between the cost to engage in foreclosure and integration costs between LSEG's and Refinitiv's operations is not a relevant comparison, instead suggesting that the Commission should have considered other costs associated with the strategy, including customer loss and indirect costs. In addition, according to the Notifying

1819 Response to the decision pursuant to Article 6(1)(c), paragraphs 383-385.
1820 Response to the SO, paragraphs 220ff.
1821 Response to the decision pursuant to Article 6(1)(c), paragraph 387.
1822 Response to the decision pursuant to Article 6(1)(c), paragraph 390.
1823 Response to the decision pursuant to Article 6(1)(c), paragraph 392.
1824 Response to the decision pursuant to Article 6(1)(c), paragraphs 396-397.

Party, partial technical foreclosure in desktop services is even less likely to lead to competition concerns than for CRTDs, since EoD index data is not as time-critical as other types of data.[1825]

(1450) *Sixth*, the Notifying Party points out that only a minority of end-customers consider that access to FTSE Russell UK equities index data is important in their selection of desktop services provider. Moreover, the Notifying Party argues that the evidence from data vendors has limited value and that it is not backed up by evidence from end-customers.[1826]

B. Arguments related to incentive

(1451) *First*, the Notifying Party submits that the combined entity faces competitive constraints downstream. In particular, the fact that Refinitiv's market position is weaker than in CRTD indicates that it faces competitive constraints at least from the number one player Bloomberg. The Notifying Party notes that the fact that indices are used by dedicated functionality applications is relevant, and that a strategy that only targets "direct" rivals of Refinitiv (i.e. not including functionality applications or other distributors) will fail because many alternative options for accessing FTSE Russell index data will remain. Moreover, it asserts that Refinitiv is not well positioned to recapture the diverted demand from rivals, as it is not considered to be one of the best alternatives remaining to customers.[1827]

(1452) *Second*, the Notifying Party submits that FTSE Russell has a strong incentive to distribute indices as widely as possible, as described in recital (1290)above, which is particularly true for EoD index data, which is used for a variety of activities (e.g. portfolio analysis, risk management, performance measurement, etc), many of which are predominantly done outside of Refinitiv, and which would lead to the destruction of value for the end-customer if they were limited to Refinitiv only.[1828]

(1453) *Third*, the Notifying Party explains that the Commission's vertical arithmetic analysis is flawed because it overstates the profit gains and understates the costs to the combined entity, which include the profit risk that the combined entity runs into by focussing narrowly on data sales via rival vendors and ignoring substantial negative profit impacts.[1829] In particular, there is a disconnection between the assumptions and conclusions of the VA and the commercial realities of the business, including the importance of network effects and the benefits of wide distribution. In addition, the Notifying Party submits that the hypothetical gains are too small to justify the real commercial risks associated with a radical and disruptive shift in strategy.[1830] Additionally, the Notifying Party challenges the reliability of the customer switching estimates[1831] altogether by arguing that the drafting of the relevant question in the market investigation could introduce a bias in the respondents, thus skewing the results. Lastly, according to the Notifying Party, the Commission's calculations are highly sensitive to inputs that are not properly

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1825 Response to the SO, paragraphs 238ff.
1826 Response to the SO, paragraphs 228ff.
1827 Response to the decision pursuant to Article 6(1)(c), paragraphs 403-404.
1828 Response to the decision pursuant to Article 6(1)(c), paragraphs 407-408.
1829 Response to the decision pursuant to Article 6(1)(c), paragraph 411.
1830 Response to the SO, paragraphs 243ff.
1831 In particular, questions 31.1 and 31.3 in Questionnaire 19 to information services end-customers, Doc ID 6469.

evidenced by the Commission, such as lower Eikon price or a different replacement ratio.[1832]

(1454) *Fourth*, the Notifying Party indicates that LSEG operates under close regulatory scrutiny, which has increased over the years, and regulators would intervene if the combined entity attempted a total/partial foreclosure strategy, also creating reputational harm for the combined entity. The Notifying Party also submits that customer partnership is key to both Refinitiv and LSEG, who can expect immediate customer backlash in the event of foreclosure by leveraging their large relationships and by credibly threatening to turn to alternative offerings in any of the products offered by the Parties.[1833]

(1455) *Fifth*, the Notifying Party submits that the results of the Commission's market investigation suggest that end customers would not switch away from their desktop provider, and that Refinitiv has no incentive to capture more data spend from multi-homing customers, since they already license Refinitiv desktops and thus a foreclosure strategy would not increase Refinitiv's revenues.[1834]

(1456) *Sixth*, the Notifying Party explains that the combined entity has no incentive to foreclose smaller rivals, because customers derive added value from functionalities from multiple smaller providers, and removing their ability to access them would be disruptive to them, which could lead to customer and regulatory reaction.[1835]

(1457) *Seventh*, the Notifying Party submits that the combined entity would not have the incentive to pursue a technical degradation partial foreclosure strategy for fear of retaliation from end-customers, thereby offsetting any incentives that the combined entity would have to engage in partial technical foreclosure.[1836]

(1458) *Eighth*, the Notifying Party indicates that past examples of vertical integration between index providers and data vendors show that incentives to wide distribution outweigh incentives to foreclose.[1837] The Notifying Party indicates that the Commission's examples of small indices which are not broadly distributed, or the change in pricing policy following acquisitions by data vendors of index businesses (or vice-versa), are not indicative of an incentive to foreclose, particularly when examples of acquisitions which have not led to foreclosure exist (e.g. Bloomberg and BRAIS). Finally, no examples are provided about previous instances of quality degradation following the acquisition of an index business.[1838]

(1459) *Ninth*, the Notifying Party submits that LSEG's internal documents do not show that LSEG has the incentive to exclusively distribute FTSE Russell data. On the contrary, the internal documents show that exclusive distribution would be contrary to an index provider's commercial interests. Furthermore, the Commission does not lend any weight to the argument that distribution of index data is driven by end-customer demand, which suggests that end-customers' demand for indices is also linked to the data vendors they use and their functionalities.[1839]

1832 Response to the SO, paragraph 271.
1833 Response to the decision pursuant to Article 6(1)(c), paragraphs 415-416.
1834 Response to the decision pursuant to Article 6(1)(c), paragraphs 412-414.
1835 Response to the decision pursuant to Article 6(1)(c), paragraph 418.
1836 Response to the decision pursuant to Article 6(1)(c), paragraph 424.
1837 Response to the decision pursuant to Article 6(1)(c), paragraph 425.
1838 Response to the SO, paragraphs 258ff.
1839 Response to the SO, paragraphs 248ff.

C. Arguments related to impact

(1460) *First*, the Notifying Party submits that competitive harm cannot be assumed by the Commission. The Notifying Party refers to a recent judgement in case T-399/16, *CK Telecoms UK Investments Ltd v European Commission* to indicate that it is necessary to specify why the alleged non-horizontal effects are important enough to significantly impede effective competition. The Notifying Party also notes that the majority of end-customers anticipate that the Transaction will have a neutral or positive impact on competition.[1840]

(1461) *Second*, the Notifying Party also submits that the Commissions concern that a foreclosure strategy would encourage end-customers to switch away from their current provider is unfounded. [1841]

(1462) *Third*, the Notifying Party argues that even if the strategy to encourage end-customers to switch away from their current supplier were successful in marginalising small rivals, there would be sufficient credible competition in the market for desktop solutions.[1842] In this sense, the Notifying Party also submits that the Commission did not substantiate its conclusion that a foreclosure strategy would lead to a decrease in the quality of services offered. It further submits that the Commission does not reconcile the fact that Bloomberg would be less disadvantaged with the contention that other downstream competitors would be unable to compete effectively. This is relevant because, even if Bloomberg has an attractive functionality with its proprietary chat offering, other products have highly valued functionalities (e.g. Factset's Cornerstone for proprietary data or models).[1843]

(1463) *Fourth*, the Notifying Party submits that, as explained in recital (1296), the Commission's duplicative costs theory of harm is speculative and non-merger specific.[1844]

(1464) *Fifth*, the Notifying Party indicates that entry barriers will not be raised because FTSE Russell index data is not an important input into the downstream market. [1845] Moreover, it submits that there are examples of smaller vendors, who account for [a significant percentage] of LSEG's end-customers, who successfully exert competitive constraints on data providers. Moreover, the majority of EoD licence revenue comes from […],[1846] and the majority of end-customers use LSEG index data in over […] different applications. This indicates that new entrants would not be harmed by a foreclosure strategy.[1847]

(1465) *Sixth*, the Notifying Party submits that the Commission's "foot in the door" theory is speculative, since there is no evidence that it offers an anticompetitive advantage to Refinitiv, and it could in fact make the market more competitive. Moreover, the Commission ignores that multi-sourcing is a feature of the market, that the opportunity to displace rivals is not different from pre-merger conditions, and that

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1840 Response to the decision pursuant to Article 6(1)(c), paragraphs 428-429.
1841 Response to the decision pursuant to Article 6(1)(c), paragraph 432.
1842 Response to the decision pursuant to Article 6(1)(c), paragraph 433.
1843 Response to the SO, paragraphs 263-264.
1844 Response to the decision pursuant to Article 6(1)(c), paragraph 435.
1845 Response to the decision pursuant to Article 6(1)(c), paragraph 441.
1846 [description of FTSE Russell licensing policy].
1847 Response to SO, paragraph 269.

the functionalities available post-Transaction for Refinitiv will not change, and thus it is unlikely that customers would upgrade to a more expensive solution.[1848]

(1466) *Seventh*, the Notifying Party highlights that the Commission's categorisation of premium/non-premium desktop services does not reflect the dynamics in the desktop market.[1849]

4.5.5.2. The Commission's Assessment

A. Ability to engage in total/partial foreclosure

(1467) The Commission considers that the combined entity has the ability to engage in total/partial input foreclosure strategies in the market for desktop services by denying access to FTSE Russell UK equities index data (total foreclosure), or by providing it at worse conditions than internally (partial foreclosure through technical degradation).

A.1 FTSE Russell UK equities indices are an important input for desktop services

(1468) In its response to the decision pursuant to Article 6(1)(c) and in its response to the SO, the Notifying Party argued that that the fact that a dataset, such as a specific index, is important for some end-customers does not mean that it is an essential input to a data vendor's desktop service.[1850] However, as this Section argues, the results of the market investigation and the Parties' internal documents indicate that UK equities index data are an important input into desktop services.

(1469) As background, end-customers access both real-time and EoD indices through desktop services. EoD indices are not carried by CRTD products. As explained above, FTSE Russell EoD indices represent [a very high percentage] of its revenues for 2019, or EUR […].[1851] For this reason, this Section will focus primarily on EoD indices.

(1470) Desktop services represent the primary way through which end customers access indices from the Parties. 66% of end-customers access index data via desktop services, whereas 55% access them through non-real-time datafeeds, 45% access them through CRTDs, 38% access them through a direct feed from FTSE Russell, and only 14% access them through dedicated functionality applications.[1852] Consequently, as explained above, index providers, end-customers and data vendors all concur that data vendor products (i.e. CRTDs, desktop services) are an important source of index data for end-customers, as they provide index data from a variety of sources in a homogenised and automatised way, and they are cheaper alternatives for end-customers than individually licensing index data from multiple providers.[1853]

(1471) The Notifying Party submitted that the fact that end-customers have multiple ways of accessing their index data, which indicates that FTSE Russell index data is not a

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1848 Response to SO, paragraph 265.

1849 Response to SO, paragraph 267.

1850 Response to the decision pursuant to Article 6(1)(c), Information services, paragraphs 383ff, and Response to the SO, paragraphs 220ff.

1851 Response to the decision pursuant to Article 6(1)(c), Annex 1, Figure 1.

1852 Figures obtained by calculating the number of unique respondents to each possible response, divided by the number of respondents. Question 120.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1853 Question 194, Questionnaire 8 to data vendors, Doc ID 6479; Question 132, Questionnaire 9 to information services end-customers, Doc ID 6480; Question 21, Questionnaire 10 to index providers, Doc ID 6460.

critical component of a particular desktop service. While it may be the case that index data is accessible through multiple channels, not all data is available through all channels. For instance, as explained above, EoD index data is not available for users of CRTDs, which makes desktop services a more attractive product for users of both EoD and real-time index data. Indeed, the figures in recital (1305) above show that desktop services are clearly the preferred way for end-customers to access index data. In this context, even if end-customers have other ways to access index data – which in any event in a foreclosure scenario is not necessarily a given – this does not mean that FTSE Russell index data are not an important input for the downstream market of desktop services.

(1472) For end-customers of desktop services, wide data coverage is the most important parameter that they take into consideration when choosing desktop services providers. From among a list of 14 parameters, data coverage was selected as the top most important parameter that end-customers consider when choosing a desktop service, followed by price, analytics and latency.[1854] This indicates that a key component of the competitiveness of a desktop services provider is its ability to have access to a wide library of high-value datasets that are attractive to its customers. In this respect, the ability to provide valuable data over the end-customers' preferred channels can be a crucial component to a data vendor's competitiveness. As index provider MSCI explains, "[c]*ustomers of desktop solutions may still need to access index levels of specific indices even if they do not license them for initial assessment/comparison. This may assist them in determining the potential need to seek additional detailed information about the index, which would require them to then license the index accordingly.*"[1855] Factset elaborates on this by indicating that "*variety and breadth of data is a key parameter that customers consider when determining what desktop solution to purchase. It is important for FactSet's index offering to reflect the broadest array of investment strategies in order to make the dataset immediately available when the client need arises. If the data is not readily available, there is substantial lead time to acquire the content and integrate it into the workstation.*"[1856]

(1473) Against the Notifying Party's argument that single datasets are not essential inputs for desktop services providers, the Parties' internal documents reveal the [competitive analysis]. This is explained in more detail in recitals (1131)ff above. This is relevant because an input can be important in a downstream market when it is a significant source of product differentiation.[1857]

(1474) Moreover, the Notifying Party counter-argued that the fact that "wide data coverage" is a key parameter for end-customers when selecting desktop services does not mean that access to data from specific indices is valued by end-customers. It must be noted that the Commission's argument is not that "wide data coverage" means that a data vendor's competitiveness is determined by the presence of any given index. Rather, the evidence gathered in the market investigation indicates that access to high-value, "critical" datasets is a key differentiating factor among desktop service products.

1854 Question 8, Questionnaire 9 to information services end-customers, Doc ID 6480.
1855 MSCI's response to question 24, Questionnaire 18 to data vendors, Doc ID 6468.
1856 Factset's response to question 24, Questionnaire 18 to data vendors, Doc ID 6468.
1857 Non-Horizontal Merger Guidelines, paragraph 34.

(1475) Against this background, the following Sections propose additional arguments as to why FTSE Russell UK equity indices are important to desktop services providers and end-customers.

A.1.1 FTSE Russell UK equities indices are an important input for UK equity indices end-customers.

(1476) For a majority of end-customers of UK equity indices, FTSE Russell UK equity indices are must-have for their operations in the EEA. End-customers and internal documents also support the view that brand name is important in the index space. Both of these arguments are covered in more depth in recitals (1311)ff above, and confirm that UK equities indices from FTSE Russell are important for end-customers.

(1477) The fact that FTSE Russell UK equity indices are important inputs for end-customers does not automatically imply that they are important inputs for desktop services providers. The following Sections will discuss why FTSE Russell UK equity indices specifically are must-have inputs for desktop services providers as well.

A.1.2 An important number of end-customers choose desktop services because of the possibility to access FTSE Russell UK equity indices

(1478) A large percentage of end-customers have expressed that access to FTSE Russell UK equity indices is an important consideration when selecting desktop services providers. For 20% of informative end-customers, access to FTSE Russell UK equity index data is either an essential component without which they would not consider a desktop services provider, or one of the most important elements to take into consideration when selecting a provider. For an additional 28% of end-customers, it is an important element that they take into consideration (although not among the most important elements). In total, 48% of end-customers expressed that FTSE Russell UK equity indices are an important element that they take into consideration when selecting desktop services providers.[1858] End-customer Standard Chartered explained that "[t]*he selection of a desktop solution is requirements based and we will use the right desktop solution or solutions to meet each end users needs, if the end user requires access to FTSE Russell UK equity indices then it will be important or essential, if not then it will not be important.*"[1859]

(1479) In its response to the SO, the Notifying Party points out that only a minority of end-customers consider that access to FTSE Russell UK equities index data is important in their selection of desktop services.[1860] The Commission considers that 48% of end-customers is a significant portion of the market. End-customers for information services are very heterogeneous in their activities, with the data needs and preferences varying widely between traders, asset or wealth managers, index providers, researchers, or government entities. The fact that the single data point (FTSE Russell UK equities indices) among thousands of data points is important to close to half of the informative end-customers indicates that this is a unique and high value dataset. For this reason, and despite the fact that just under half of respondents consider UK equities indices important in their selection of desktop solutions, the

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1858 Question 30.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1859 Standard Chartered's response to question 30.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1860 Response to the SO, Information Services, paragraph 228ff.

Commission considers this a relevant indication that FTSE Russell UK equities indices are important inputs for the desktop solutions market.

(1480) Desktop services providers also expressed that for end-customers the possibility to access indices is important in their desktop service purchase decisions.

(a) 67% of informative data vendors expressed that the possibility to access specific indices is important for customers of desktop services, even if they do not use this index set today.[1861]

(b) All informative data vendors expressed that customers would not choose to purchase a desktop solution by a rival of Refinitiv, if they know that there is no possibility to access FTSE Russell indices through rival desktop services providers.[1862]

(c) Data vendor Dow Jones expressed that, regarding FTSE Russell UK equities indices, "[t]*his data is fundamental to purchasing a desktop solution.*"[1863]

(d) Data vendor IRESS explained that it cannot "*imagine a scenario where customers will want to trade through a product where they cannot see the price of the most important index benchmark unless there was a well recognised and widely adopted substitute, of which there is not yet for the UK market. Alternatively it is an inconvenience to have to use a separate system for one piece of data. They will most likely just move to a system that can provide all the data*."

(e) Data vendor DTN elaborated on this, by explain that if end-customers "*need the data for their trading, they will be forced to choose the solution that has the data and leave other solutions.*"[1864]

(1481) In its response to the SO, Notifying Party submitted that the feedback from data vendors has limited value, and that feedback from end-customers should be preferred.[1865] The Commission notes that the Notifying Party relies on the observation that data vendors are speculating as to the importance of FTSE Russell UK equity indices to end-customers. However, the Commission considers that the views of data vendors are equally important to form a view as to the importance of the input into the downstream market, notably because as data distributors, they are aware of the data that the totality of their end-customers access. The Commission is therefore not compelled to attribute less value to the perspective of data vendors than to that of end-customers.

A.1.3 FTSE Russell UK equities index data are important to desktop services

(1482) As explained above, FTSE Russell distributes its indices widely, with more than […] vendors and distributors carrying it. The fact that FTSE Russell UK equities indices are widely distributed is supported by the results of the market investigation, which

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1861 Question 24, Questionnaire 18 to data vendors, Doc ID 6468.

1862 Question 25, Questionnaire 18 to data vendors, Doc ID 6468. Note that there are two respondents who selected "yes", but who upon review of their written responses to question 25.1, Questionnaire 18 to data vendors, Doc ID 6468, clearly express the view that customers would not choose to purchase a desktop solution if it does not include access to FTSE Russell indices.

1863 Dow Jones' response to question 25, Questionnaire 18 to data vendors, Doc ID 6468.

1864 DTN's response to question 25, Questionnaire 18 to data vendors, Doc ID 6468.

1865 Response to the SO, Information Services, paragraph 233.

confirmed that most data vendors carry UK equity indices from FTSE Russell,[1866] thus allowing end-customers access to an important dataset through nearly any channel they wish today.

(1483) 75% of informative desktop services providers indicated that they carry indices based on customer demand.[1867] If an index is requested by end-customers, it is in the best interest of the desktop service provider to provide access to it in order to meet the customer's demand. In this context, 67% of data vendors report that FTSE Russell indices are a key part of their offering to their end-customers.[1868]As explained above, for 48% of end-customers, access to FTSE Russell UK equities index data is an important component in their selection of desktop services provider. In this sense, FTSE Russell UK equities index data are an important component of a desktop services provider's offering, as it is valued by a significant percentage of the downstream demand, and not carrying it would significantly impact a rival's ability to compete.

(1484) Desktop services providers expressed concern that not carrying FTSE Russell's UK equity indices would disadvantage them and make them less desirable for end-customers. Indeed, 87% of informative data vendors expressed that in the event of foreclosure of FTSE Russell UK equity indices, end-customers would react by reducing their purchases of desktop services products from them or would switch their desktop services requirements to Refinitiv altogether.[1869] As data vendor Factset puts it "*LSEG index data is critical to many FactSet customers and the limited alternatives available are extremely difficult for customers to switch to. FactSet's desktop solution cannot be used effectively by customers without these essential datasets. Without these dataset in FactSet's workstation, customers would be forced to switch to Refinitiv's desktop solution and competition in the desktop market would be squashed*."[1870]

1866 As ranked by the majority of data vendors, end-customers and index providers in their response to question 195, Questionnaire 8 to data vendors, Doc ID 6479; Question 133, Questionnaire 9 to information services end-customers, Doc ID 6480; and Question 24, Questionnaire 10 to index providers, Doc ID 6460.

1867 Response to question 8, Questionnaire 18 to data vendors, Doc ID 6468.

1868 Question 197, Questionnaire 8 to data vendors, Doc ID 6479.

1869 24% indicated that customers would switch all their desktop solutions to Refinitiv, 13% indicated that they would switch most volumes, and 50% indicated that end-customers would switch some of their purchasing volumes to Refinitiv. Question 26, Questionnaire 18 to data vendors, Doc ID 6468. The Commission notes that the classification of end-customers "*adding Refinitiv desktop*" conservatively includes most likely also end-users that are in fact switching (instead of adding) their provider of desktop services because, first, end-customers would be classified as adding Refinitiv desktop when, as a reply to total foreclosure of indices, they answered that they "[…] *would source (London Stock Exchange venue data/FTSE Russell UK equity indices/SEDOLs) from Refinitiv desktop solutions, but would otherwise continue using our existing desktop solutions from rivals as normal*." (see Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469). This answer provides information of switching/adding of desktop service providers on the firm level of the end-customer. Second, some end-customers use multiple desktops services' providers for different purposes, in different departments of their organization (e.g., see Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, fn. 22), or for different end-users/employees as submitted by the Notifying Party (e.g., see "Assessing incentives for total foreclosure 'in-the-round'", 11 September 20, paragraph 24). Since the respondents to the questionnaires replied to questions about their firms' usage of desktops the above mentioned answer of adders most likely includes switching end-users of desktop services.

1870 Factset's response to Question 39, Questionnaire 8 to data vendors, Doc ID 6479.

(1485) The Notifying Party's argument that the combined entity is not able to exclude smaller rivals, because smaller competitors are not dependent on FTSE Russell index data, is not supported by available evidence. From all data vendors responding to the Commission's question of whether customers would reduce purchases from them if FTSE Russell UK equities index data were not available through their desktop services, only a single respondent, Moody's Analytics, indicated that index data is not a material part of their offering.[1871] Every other informative respondent, all of which are small competitors with less than 5% market share (e.g. Factset, IRESS, Morningstar, Dow Jones, DTN, etc.) indicated that end-customers would reduce their purchases from them, either in part or completely.[1872] Similarly, all informative data vendors, including the same smaller competitors, indicated that end-customers would not choose to purchase a desktop service from a rival of Refinitiv if they knew that there is no possibility to access FTSE Russell indices through them.[1873] Considering the above, there is no basis to support the view that smaller competitors are not equally dependent on FTSE Russell data just as much as bigger competitors.

(1486) A foreclosure strategy is particularly apt to lead to reduced consumption from desktop services providers other than Refinitiv because end-customers typically seek to rationalise their data consumption and minimise redundant sources of data. Recitals (1321)ff above provide evidence from the market investigation to substantiate this view.

(1487) Against this background, desktop services providers with the largest data coverage – which as described in recital (1474) was considered the most important element of a desktop service product – provide a more competitive product than those with a more limited offer, all other things remaining equal. By the same token, the fact that a desktop service provider presents a product with wide data coverage *and* unique high value data would serve as a key differentiating factor for customers seeking to rationalise and reduce their costs.

(1488) The findings presented in the above Sections directly contradict the Notifying Party's argument that FTSE Russell's UK equity indices are not important inputs into the downstream market for desktop services.

A.1.4 The cost factor of FTSE Russell UK equity indices compared to the desktop services price does not reflect the importance of the data

(1489) The Notifying Party has provided figures indicating that equity indices are a small cost factor in the downstream market for desktop services. In the Notifying Party's calculations, equity indices redistribution fees represent [a very small percentage] of the value of the downstream desktop and feed markets in which they are used.[1874] Moreover, the Notifying Party indicates that Refinitiv spend on FTSE Russell indices represents only [a very small percentage] of its total content spend.[1875]

(1490) However, the fact that the redistribution fees FTSE Russell UK equity indices represent a small input cost is not indicative of the importance that this data has in the desktop services market, as explained in recital (915) above.[1876] Moreover, an

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1871 Moody's Analytics' response to Question 26, Questionnaire 18 to data vendors, Doc ID 6468.
1872 Response to Question 26, Questionnaire 18 to data vendors, Doc ID 6468.
1873 Response to Question 25, Questionnaire 18 to data vendors, Doc ID 6468.
1874 Response to the decision pursuant to Article6(1)(c), Annex 4, Figure 1.
1875 Form CO, paragraph D.944.
1876 The Commission notes that although UK equities indices are an important input for desktop solutions, their licensing costs represent only a limited share of the total desktop solutions price. As such, the

input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product.[1877]

A.2. Switching away from FTSE Russell UK equity indices is very difficult for end-customers

(1491) According to the Non-Horizontal Merger Guidelines, an input maybe important when the cost of switching to alternative inputs is relatively high.[1878] Recitals (1331)ff above set out evidence supporting the view that indices are difficult to substitute or to switch away from, and that certain end-customers with investment mandates may encounter additional difficulties in switching index providers within a short time-frame.

A.3 FTSE Russell has a significant degree of market power in UK equity indices

(1492) The Notifying Party's argument that FTSE Russell faces strong competition in the market for UK equity indices is not supported the market investigation or by the Notifying Party's own internal documents. The Commission's evidence supporting the view that the combined entity has a significant degree of market power in UK equity indices is set out in recitals (1335)ff above. Contrary to the Notifying Party's view, FTSE Russell does not appear to face strong competition upstream, and instead appears to have a significant influence on the conditions of competition in the upstream market of UK equities indices, and consequently on the prices and supply conditions in the downstream market for desktop services.[1879]

Commission considers that the combined entity would not have the ability to engage in price-based partial foreclosure in the market for desktop solutions, by increasing the price of FTSE Russell UK equities index data to rivals. Assuming that UK equities index data redistribution fees represent [a very small percentage] of the cost of a desktop solutions product, [a very high price increase] would be needed to increase downstream prices by 10% (even if fully passed through). In the same vein, assuming that UK equities index data end-customer licence fees represent [a very small percentage] of the cost of a desktop solutions product, [a very high price increase] would be needed to increase downstream prices by 10% (even if fully passed through). However, price increases of this magnitude would no longer qualify as price-based partial foreclosure but rather amount to a total input foreclosure strategy (as the Notifying Party acknowledged in Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 4, page 6). The Commission also notes that it is unlikely that the combined entity would have the incentive to engage in a price-based partial foreclosure in desktop solutionss, by restricting access to FTSE Russell UK equities index data. In the market investigation, the majority of informative end-customer respondents indicates that they would stick to their existing desktop solutions provider, if the combined entity increased the price of UK Equities index data. See Question 31.2, Questionnaire 19 to information services end-customers, Doc ID 6469. The remainder of this Section thus focuses on total input foreclosure and technical partial foreclosure (but not price-based partial foreclosure).

1877 This is consistently confirmed in the General Court's case law (Judgment of 14 December 2005, *General Electric Company v Commission*, Case T-210/01, ECLI:EU:T:2005:456, paragraphs 216, 217, 287-290) and the decisional practice of the Commission (Commission decision of 1 October 2018 in Case M.8985 – *Boeing/KLX*, paragraph 67; Commission decision of 17 November 2010 in Case M.5675 – *Syngenta/Monsanto Sunflower Seed Business*, paragraphs 347 and 350; Commission decision of 14 May 2008 in Case M.4854 -- *TomTom/Teleatlas*, paragraph 198; and Commission decision of 24 April 2007 in Case M.4569 – *GE/Abbott*, paragraphs 30 and 36).

1878 Non-Horizontal Merger Guidelines, [2008] C265/5, paragraph 34.

1879 Non-Horizontal Guidelines, paragraph 35.

A.4 Existing distribution infrastructure does not prevent partial technical foreclosure

(1493) The Notifying Party's argument that existing distribution architecture does not allow the combined entity to provide lower quality data to competitors downstream is not appropriate for the assessment of the combined entity's ability to engage in a partial foreclosure strategy based on technical degradation, because the combined entity is able to change this infrastructure without incurring in prohibitive costs.

(1494) *First*, FTSE Russell's distribution architecture is managed by LSEG, as explained in recital (1343) above. This indicates that other than the cost involved in overhauling the distribution system, there is nothing impeding the combined entity from providing a higher latency or worse quality indices to Refinitiv's rivals than to Refinitiv itself.

(1495) *Second*, the costs in terms of capital and time to change the infrastructure are not prohibitive, such that the combined entity would have the ability to undergo the infrastructure changes if it has the incentive to foreclose. For EoD index data, the combined entity would have to split the existing architecture and make changes to the existing workflow, storage and infrastructure. The Notifying Party calculates that such a project would cost […] with an additional […] to maintain per annum, and it would take [timeframe] to implement.[1880] For real-time index data, as described above, the cost of changing infrastructure would amount to […] with an additional […] to maintain per annum, and it would take [timeframe] to implement.[1881] There is no reason to believe that this costs and time investments would be too burdensome for the combined entity to implement the infrastructure changes required to engage in a partial foreclosure through technical degradation. As described in recital (1344) above, the Notifying Party estimates that it will incur in costs of around USD […] (for 2020 only) in order to integrate Refinitiv's business into its own, and thus the costs associated with changing the distribution architecture do not appear to be prohibitive for the combined entity. This is especially true since these costs would not need to be incurred as a standalone project, but could instead be blended in the broader integration program. Furthermore, those costs need to be contextualised with the expected profits from engaging in a foreclosure strategy, which as is discussed in recital (1546) below, amounts to up to EUR […] in additional profit.

(1496) In its response to the SO, the Notifying Party submitted that integration costs are not the right comparison to assess the combined entity's ability to foreclose end-customers and suggests that the Commission include other cost elements in order to ascertain the ability, such as reputational costs, customer loss and other indirect costs.[1882] However, the Notifying Party provided no basis upon which to calculate these additional cost elements. In any event, the Commission considers that the integration costs are appropriate because they demonstrate the extent of the investment that the Notifying Party is willing to put into integrating the Target into its organisation. Given that the cost to enable partial technical foreclosure is well within the scope of spending that the Notifying Party has anticipated for the Transaction, the costs the combined entity would have to incur to engage in foreclosure are moderate compared to what is the planned expenditure to integrate the operations of LSEG and Refinitiv.

1880 RFI 40 reply, paragraph 9.

1881 RFI 40 reply, paragraph 9.

1882 Response to the SO, Information Services, paragraph 239.

(1497) Therefore, it is the Commission's view that, the combined entity has the ability to engage in total foreclosure or partially foreclose its competitors via technical degradation.

B. Incentive to engage in total/partial foreclosure

(1498) The Commission takes the view that the combined entity would have the incentive to engage in a total/partial input foreclosure strategy against desktop services rivals by restricting access to FTSE Russell UK equities index data. Such a strategy in the short term would increase Refinitiv's footprint in the downstream market as the majority of end-customers would switch to or add a Refinitiv desktop service to be able to continue accessing FTSE Russell UK equities index data. In the long term, a total/partial foreclosure strategy would allow the combined entity to exclude smaller rivals and new entrants.

B.1. Total foreclosure

(1499) This Section shows that the combined entity would have the incentive to engage in total foreclosure in desktop services, regarding FTSE Russell UK equities index data. Such as a strategy would be profitable based on the Commission's economic analysis; moreover, internal documents suggest that the combined entity may have incentive for exclusive distribution of content can drive additional sales of desktop services.

B.1.1. A total foreclosure strategy would be profitable

(1500) The combined entity will have an incentive to engage in an input foreclosure strategy if doing so proved profitable. The strategy would be profitable for the combined entity if the profit lost in the upstream market (namely, the revenues from the licensing fees of LSEG FTSE Russell UK equity indices) was smaller than the profit gained in the downstream market from increased Refinitiv desktop services.

(1501) The Commission's economic analysis shows that overall, the combined entity will likely have the incentive to engage in total input foreclosure in the market for desktop services by restricting access to LSEG FTSE Russell UK equity indices.

(1502) In its decision pursuant to Article 6(1)(c) and in the SO the Commission puts forward its analysis of the incentives of the combined entity to foreclose competitors. The Notifying Party responded to this assessment through a series of economic submissions. The Commission factors in its analysis the additional information provided by the Notifying Party in its submissions in its assessment below.

Switching Rates

(1503) To assess the possible effects of the Transaction on the relevant market for desktop solutions the Commission (among other investigative steps) addressed questionnaires to end-customers who are using these services. These questionnaires were based on Article 11(2) of the Merger Regulation. In the context of these questionnaires, the Commission asked end-customers how they would react in case the combined entity discontinued access to UK equities index data through rival desktop solutions or in case the combined entity degraded such access. Based on the replies of end-customers, the Commission estimated in case of total or partial technical foreclosure: (i) the percentage of end-customers who would switch to Refinitiv desktop solutions; (ii) the percentage of end-customers who would add Refinitiv desktop solutions; and (iii) the percentage of end-customers who would take no action and stick to their existing desktop solutions provider.

(1504) The Commission uses these percentages ("the switching rates") in its calculations aiming to quantify the Notifying Party's incentives to pursue a total input foreclosure strategy in desktop solutions, by restricting access to UK equities index data.

(1505) The Commission sent questionnaires to information services end-customers twice during its market investigation: once during Phase I (in May 2020) and once during Phase II (in August 2020). The first questionnaire was sent to 1 004 addressees. The second questionnaire was sent to 978 addressees. The contact details of the addressees were provided by the Notifying Party and supplemented (where relevant) by the details in the Commission's files.[1883]

(1506) The response rate to the May 2020 questionnaire was 10%. The response rate to the August 2020 questionnaire was 15%. The Commission considers the response rate as sufficient to draw conclusions about likely post-Transaction conduct of end-customers.

(1507) In the Phase II questionnaire, focusing on a possible input foreclosure strategy concerning UK equities index data, the Commission offered end-customers four possible answers to the question inquiring about end-customer reactions to input foreclosure. The four options were: swithing away from the existing provider to Refinitiv; adding the Refinitiv's product to continue having access; foregoing access to UK equities index data and keeping their existing desktop solutions; and "Other". End-customers selecting "Other" were required to specify their behaviour in a subsequent question which read: "*If "other", please specify*".[1884]

(1508) Further, the questionnaires included questions that aimed to inquire the sensitivity of the responses. For example, in the context of information services end-customers, the Commission asked respondents to clarify their motives for switching.[1885]

(1509) In its response to the SO, the Notifying Party considers that the questionnaire sent during Phase II was "*poorly designed and potentially leading set questions*"[1886].

(1510) However, the Commission rejects this claim. The Commission gave respondents the ability to select one of the predetermined three options or simply choose "Other" and indicate in free text their future reaction. When preparing the three predetermined options, the Commission took into account the possible reactions that the Notifying Party identified in the Form CO. Moreover, when preparing the Phase II questionnaire, the Commission took into account comments that the Notifying Party made in its response to the decision pursuant to Article 6(1)(c) decision.

(1511) In its response to the SO, the Notifying Party also indicates that the end-customers taken into account for the calculation of the switching rates were a "*very small and highly unrepresentative sample of the Parties' customer base*"[1887].

(1512) The Commission regards this claim as being baseless for the following reasons:

(a) For the calculation of the switching rates concerning the vertical overlap between UK equities index data (upstream) and desktop solutions

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1883 See discussion below and M.9564_IS_Annex_209_Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

1884 See Question 31, Questionnaire 19 to information services end-customers, Doc ID 6469.

1885 Question 37.4, Questionnaire 19 to information services end-customers, Doc ID 6469.

1886 Response to the SO, Information Services, Annex 1.

1887 Response to the SO, Information Services, Annex 1.

(downstream), the Commission took into account the answers of 47 informative respondents;[1888] and

(b) The Commission addressed to Phase II questionnaire to 978 end-customers. The contact details from these end-customers were provided by the Notifying Party following detailed exchanges with the Commission.[1889] Indeed, the Commission provided detailed guidance to the Notifying Party regarding the provision of contact details, requiring significant number of end-customer contact details per number (15 or 20).[1890] The Commission also requested the Notifying Party to provide contact details covering a wide range of end-customers, in terms of revenue, business segment (sector of activity of end-customer), and by customer tier (according to amount of sales to the Parties). The approach is considerably more granular than what the template of the Form CO suggests.[1891] The Commission has therefore used an appropriate and representative sample.

(1513) The Notifying Party submits that the answers of several end-customers should not have been taken into account because some of them are not licensing UK equities index data while others already do so through Refinitiv desktop solutions.[1892] Thus, their answers about a possible reaction to foreclosure of UK equities index data from rival desktop solutions should not be taken into account. The Notifying Party did not explain why these respondents would more likely be biased towards one option (nor which option that would be). In any event, to address the arguments of the Notifying Party, the Commission conducted a sensitivity analysis to its calculations, excluding end-customer respondents who did not license UK equities index data in 2019 or end-customer respondents who already licensed UK equities index data data in 2019 through Refinitiv desktop solutions. This sensitivity analysis confirmed that the combined entity would have the incentive to engage in input foreclosure in desktop solutions, also on the basis of the hypothetically recalculated switching rates.[1893]

(1514) The Notifying Party also submits that "*survey results based on hypothetical questions suffer from hypothetical bias*"[1894] and points to guidance from the CMA[1895]. The Commission acknowledges that in general survey design can affect the outcome of questionnaires and potentially can lead to a "*hypothetical bias*" (in particular for surveys addressed to consumer respondents). However, in the present case, the responses of the questionnaires came from leading management executives (or groups of executives) in relatively large and sophisticated financial firms. Therefore, the Commission finds that the replies to the questionnaires in the present

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1888 Question 31.1, Questionnaire 19 to information services end-customers.

1889 Contact details first requested by the Commission in Question 5 of the Request for Information dated 16 October 2019 (RFI 1) and subsequently in Question 3 of the RFI dated 13 November 2019 (RFI 3), Question 10 of the RFI dated 27 November 2019 (RFI 4), Question 2 of the RFI dated 28 January 2020 (RFI 8), Questions 1 to 5 of the RFI dated 30 March 2020 (RFI 12), and Questions 13 and 21 to 27 of the RFI dated 27 April 2020 (RFI 13).

1890 M.9564 IS Annex 209 Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

1891 See Commission Regulation (EC) No 802/2004 of 7 April 2004 implementing Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings, Annex I, Section 8.6.

1892 Response to the SO, Annex 1.

1893 See recitals (1546)ff.

1894 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2.

1895 Guidance on Good practice in the design and presentation of customer survey evidence in merger cases, Questionnaire section, available at https://www.gov.uk/government/publications/mergers-consumer-survey-evidence-design-and-presentation/good-practice-in-the-design-and-presentation-of-customer-survey-evidence-in-merger-cases (last accessed on 17 November 2020).

case are unlikely to suffer from "hypothetical bias" taking into account the sophistication of the respondents. .

(1515) For all these reasons, in its calculations in the remainder of this Section, the Commission relies on the switching rates from the market investigation, absent any other evidence on switching rates available in this case (including from the Notifying Party).

Profits potentially lost upstream

(1516) In its decision pursuant to Article 6(1)(c) the Commission approximated the revenue generated by LSEG through the sale of FTSE Russell UK equity indices with the revenues in the category Data Sale[1896] associated with FTSE Int Ltd, which amounted to GBP […] in 2019 ([…]).[1897]

(1517) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party indicated that revenues from product licences for FTSE Russell indices amounted to GBP [...] in 2019.[1898] The Commission would have therefore underestimated the potential profits lost in the foreclosure strategy by underestimating the revenue upstream. However the figure provided by Notifying Party of GBP [...] contains income from more products than the FTSE Russell UK equity indices. The Notifying Party did not provide a different estimate than Commission's estimate of GBP [...] for this category of indices. In fact, the Notifying Party confirmed that the figure GBP [...] contains index licensing revenues from all index asset classes and all geographies where FTSE Russell indices are commercialised[1899]. This figure therefore overestimates considerably the potential profits lost.

(1518) In its decision pursuant to Article 6(1)(c) the Commission further considered that the part of the upstream revenue at risk is the revenue from UK equity indices that are currently not distributed through Refinitiv desktops. The Commission used the market share of Refinitiv in desktops of [10-20]% to estimate this proportion of revenues.

(1519) The Notifying Party objected to the use of the market share to approximate the potential revenue lost. The Notifying Party instead presented an analysis of the use of different desktop solutions to access FTSE Russell indices data based on its top 100 customers in its economic submission labelled "Incentives to maintain wide distribution of LSEG data".[1900]

(1520) The Commission considers that if the Notifying Party presented that 100 largest customers were an appropriate reference group to establish conclusions on the incentives to foreclose competitors in the paper "Incentives to maintain wide distribution of LSEG data", the information on the 100 customers and the information presented in the spread sheet "usage_summary_OED indices" that was presented as containing the underlying data for the submission of the paper by the

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1896 [description of LSEG accounting policy].

1897 This amount excludes the revenues of legal entities dedicated to other asset classes than equity such as FTSE Fixed Income LLC and entities corresponding to equity or other asset class indices dedicated to specific geographies such as FTSE China Index Ltd. The Data Sales revenue as a whole for all FTSE and Russell indices amounted to GBP [...]234 715 705 in 2019 and thereof Data Sales revenue associated with the Russell index (Frank Russell Co) amounted to GBP [...] in 2019. Converted into euro at 0.87777 EURGBP rate based on ECB 2019 average rate.

1898 Annex 6 to the response to the decision pursuant to Article6(1)(c) ,'Vertical Arithmetic', page 9.

1899 RFI 34 reply, point 37.

1900 Annex 1 to the response to the decision pursuant to Article6(1)(c).

Notifying Party is also an appropriate reference for Commission's consideration on the incentives to foreclosure competitors in the EoD indices market segment. EoD index sales made up [a very high percentage] of all index data sales in 2019, while real time index sales represented [a small percentage].[1901]

(1521) According to the information presented in the paper "Incentives to maintain wide distribution of LSEG data" only [...] customers in the sample are licenced to use FTSE Russell EoD index data in Refinitiv applications for [...] different purposes and that each of the customers who use Refinitiv also use [...] other applications.[1902] This [...] of Refinitiv to access EoD FTSE Russel indices data is also consistent with the information provided by the Notifying Party according to which, LSEG data shows that only [...] customers use Refinitiv as a delivery agent for FTSE Russell EoD index data, compared to [...] customers that use FactSet and [...] customers that use Bloomberg.[1903] The Commission therefore used [...] percent to estimate the portion of the revenue at risk as presented in the table below.

(1522) Further, the Notifying Party noted that [a high to very high percentage of] income from equity indices is derived from EoD rather than real time. The Notifying Party therefore provided data on customers on the basis of EoD data. The Commission accepts this basis for the analysis of the incentives to foreclose competitors.

(1523) In order to estimate the profits derived by LSEG from its upstream revenues, the Commission deducts from the revenue the cost of sales for indices business segment of LSE, estimated based on the gross profit margin of the index business segment. Cost of sales are by nature variable costs. Other variable costs could be accounted for as operating expenses. However, the Commission takes a prudent approach by considering that only cost of sales should be deducted as variable costs from profits potentially lost. The lost profits are in this manner potentially overestimated (but not underestimated), making it less likely to establish incentives than if a broader cost base was deducted from the revenues to determine the profits of FTDE Russell UK equity indices sales by LSEG.[1904] The gross profit margin of LSEG "Index" business segment stood at [a high percentage] in 2019.[1905]

Profits gained downstream

(1524) Downstream the profits potentially gained by the combined entity are twofold: on the one hand, profits would increase through additional sales of desktop solutions; and on the other hand, additional profits would arise from the administrative fee charged to end-customers on the revenue from sales of data channelled through Refinitiv desktop solutions. The Notifying Party considers that the revenue potentially gained by Refinitiv is higher in case end-customers switch their whole demand in terms of desktop solutions to Refinitiv as a result of a foreclosure strategy than in case end-customers add a Refinitiv terminal to their set of existing desktop data solutions.[1906]

(1525) Although Eikon is not the only desktop solution offered by Refinitiv, it is the solution offered to new customers. Other desktop solutions such as Thomson One terminals are no longer offered to new customers and existing customers are being

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1901 Annex 1 to the response to the decision pursuant to Article6(1)(c), page 5.

1902 Annex 1 to the response to the decision pursuant to Article6(1)(c), page 15.

1903 Annex 1 to the response to the decision pursuant to Article6(1)(c), page 15.

1904 In its decision pursuant to Article 6(1)(c) and for the purpose of the preliminary findings, the Commission assumed a 100% profit margin in order to obtain a prudent assumption.

1905 Annex 122 to the Form CO IS.

1906 Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 6, footnote 12.

migrated to Eikon desktops solutions.[1907] Therefore, only Eikon prices are relevant for the estimation of the revenue to be derived from switching customers in the future.

(1526) The Commission does not agree with the figures provided by the Notifying Party to estimate the yearly cost end-customers would incur when adding a Refinitiv desktop. The Notifying Party's estimate of [...] euro yearly[1908] corresponds to EUR [...] per month, which is, for example, lower than the price of EUR [...] for the most reduced version of Eikon providing LSE venue data for front office users as presented by the Parties in the Form CO.[1909]

(1527) As explained in recital (1181) above, it is not credible that the combined entity would offer new end-customers the cheapest version on the Eikon, as such clients would be revealing that they need FTSE Russell UK equity indices (in other words, they would be price takers). The respondents to the market investigations declared their intentions to add an Eikon terminal based on the current price of the terminals which are best approximated by the average price of the Eikon terminal. This average price stood at EUR [...] per year[1910] according to the Parties.[1911] In its calculations, the Commission will therefore use this figures for clients adding Eikon terminal to continue receiving FTSE Russell UK equity indices data.

(1528) Regarding customers switching all their desktop demand to Refinitiv, the most comprehensive desktop solution would be a high tier variation of Eikon, which offers the greatest set of functionalities. According to internal documents of Refinitiv the monthly revenue per user for high tier variants of Eikon is set at USD [...], corresponding to a yearly revenue of EUR [...].[1912]

(1529) Regarding cross-selling, (i.e the ability of the combined entity to sell products and services to customers migrating to Refinitiv's desktop solutions as a result of the foreclosure), the Notifying Party submits that the potential cross-selling opportunities would be small because customers would continue to source their data products from multiple providers post-merger instead of acquiring more services from Refinitiv.[1913] The Commission notes that the submission that potential cross-selling opportunities are minor contradicts the Notifying Party's statement about potential revenue synergies from the Transaction.[1914] Further, internal documents of the Notifying Party show plans to engage [LSEG internal discussion of plans for the combined

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1907 Refinitiv is commercializing different desktop terminals, such as Eikon, 'Thomson One Wealth Management' and 'Thomson One Banking'. However 'Thomson One Wealth Management' and 'Thomson One Banking' will no longer be offered by Refinitiv and clients will be offered Eikon desktop services instead. Products that are no longer offered to new customers but are still used based on subscriptions concluded in the past are referred to as legacy products.

1908 See Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2: "*for those end customers, the most likely choice would be adding the lowest cost Eikon variant containing LSE RTD, which has a list price of €[...] per annum*".

1909 Form CO, paragraph D.514: "[i]*n addition, a slimmed down variant of Eikon (which includes access to LSEG venue data) is already available for fixed income traders for EUR 925 per month*".

1910 This figure is lower than the price provided by the Notifying Party for a reduced version of Eikon of EUR 925 per month, corresponding to EUR 11 100 per year. In order to take the more conservative figure, the Commission accepts the figure of EUR 10 213 as an appropriate estimate of the average price.

1911 RFI 29 reply, question 46.

1912 Annex 287 to the Form CO, converted based on the 2018 average EUR/USD ECB conversion rate 1,1798.

1913 See "Assessing incentives for total foreclosure 'in-the-round'" dated 11 September 2020

1914 For example, RFI 32 reply.

entity], as for example stated in an email where FTSE/Russell executives discuss how generate more revenue post-merger using FTSE indices[1915]: "[LSEG internal discussion of plans for the combined entity][1916] [LSEG internal discussion of plans for the combined entity]"[1917] or "[LSEG internal discussion of plans for the combined entity]".[1918] Further, the Commission considers that the outlined cross-selling opportunities are not exhaustive and would be even more effective when firms reduce the number of their desktop providers, i.e. reduce multi-homing, […].[1919] For the reasons given above, the Commission considers cross-selling or up-selling as a likely business strategy of the Notifying Party post-merger.

(1530) The Commission considers that the assumption that the combined entity will continue earning revenues at least at the same levels as today is a conservative one, in light of the Notifying Party's plans to generate more revenues in the future.[1920]

(1531) The Notifying Party submits an estimation using its own lower profits from Eikon terminals, as discussed above, and finds that foreclosure would be profitable with a switching rate of [a high percentage].[1921] The Commission observes that the switching ratio based on the second market investigation is 63% and higher than the minimum switching ratio presented by the Notifying Party based on profit assumptions from additional Eikon terminals that are too low, as explained above. Even based on such assumptions the strategy would be profitable.

(1532) Refinitiv submitted that approximately [a small percentage] of its cost base is variable.[1922] According to Refinitiv, the most representative profit margin is likely to be the September 30, 2019 last twelve month adjusted EBITDA margin ([a significant percentage])[1923]. The Commission bases its estimate of incremental costs on the above provided figures.

(1533) Finally, data vendors retain a mark-up on end-user license fees (e.g. Refinitiv charges a so-called "administration fee" of [a small percentage] on top of end-user license fees) which is to be paid by end-customers on top of the price of the desktop and on top of the license fee itself.[1924] The profits that Refinitiv could retain additionally downstream in case of a foreclosure strategy through the administrative fee would be EUR […] per year if 63% of end-customers currently not receiving FTSE Russell UK equity indices data through Refinitiv or having a Refinitiv terminal, would receive this data through the Refinitiv terminal in the future, in line with the findings of the phase II market investigation.

1915 Given the relevance for FTSE/Russel products, the Commission's arguments about cross-selling are equally relevant in the assessment of indices.

1916 [...].

1917 See [internal document] Doc ID 4699-32729

1918 See [internal document] Doc ID 4695-02967

1919 See [internal document] Doc ID 4991-75804; [internal document] Doc ID 4991-29132; "[internal document] Doc ID 4991-25164, page 3; [internal document] submitted 4 June 2020, page 320 and 341.

1920 The importance to take into account the statistical distribution of Eikon revenus also bases on the observation that […] (see [internal document] Doc ID 4151-017880).

1921 Annex 6 to the response to the decision pursuant to Article 6(1)(c),'Vertical Arithmetic', page 8.

1922 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.

1923 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to USD […], from Annex 49 to the Form CO.

1924 Form CO, paragraph D.198.

Scaling Factor

(1534) The Notifying Party estimated that end customers on average could be expected to purchase […] Eikon desktop for approximately every […] Bloomberg terminals currently used to access FTSE Russell index data. According to the Notifying Party even if the ratio was only […] or […], this would substantially reduce the profit gained from any foreclosure strategy.[1925] For illustration, the Notifying Party, contended that if every end customer in the [a high percentage] that would buy additional Refinitiv desktops would buy […] Eikon for every […] non-Refinitiv desktops that it currently uses to access FTSE Russell index data, the diversion ratio implied by the market investigation would fall from [a high percentage] to [a small percentage] (and from [a high percentage] to [a small percentage] if the Refinitiv purchase ratio was […]). The Notifying Party further presented a revisted version of the calculation presented in the decision pursuant to Article 6(1)(c) – figures which are both well below both the [a high percentage] critical diversion ratio conservatively estimated above and the [a significant percentage] critical diversion ratio estimated through the vertical arithmetic exercise. The Commission rejects the claim that […] Bloomberg terminals are replaced by […] Eikon terminal upon foreclosure of LSE input for the following reasons.[1926]

(1535) *First*, the ratio of [...] and [...] and any other ratio presented by the Notifying Party is unfounded. The Notifying Party failed to present any underlying data or calculation to substantiate this assumption, submitting that for these data points it is "difficult to provide concrete evidence".[1927]

(1536) *Second*, there is no indication from the market investigation that customers would add a Refinitiv terminal for only a limited number of users, lower than the number of users that currently access the LSEG FTSE Russell data through Bloomberg or other competing desktop solution providers.

(1537) *Third*, the substitution of [...] Bloomberg terminals by [...] Eikon terminal implies that [...] out of [...] current users of LSE data on Bloomberg terminals change their behavior and start sharing access to data desktops post-merger. The scenario that [a very high percentage] of current LSE data users on Bloomberg share access to [...] desktop is not only unrealistic in the business context, for example of wealth management and trading, but it would also violate Refinitiv's user policy. The Notifying Party argues that a special offering, the Eikon KIOSK, would allow several customers access to [...] desktop. However, the Eikon KIOSK is a product with a limited use case that is hard to compare to a traditional desktop, as acknowledged by the Parties' reply to Q9 of RFI 34. Further, internal documents/email exchanges[1928] show that KIOSK is only offered to […].

(1538) *Fourth*, the substitution of […] Bloomberg terminals by […] Eikon terminal implies a severe over-consumption of Bloomberg terminals pre-merger, i.e. end customers would realise only upon foreclosure that they were consuming too many Bloomberg terminals. Such assumption of non-rational decision making of firms pre-merger is highly unlikely, given the sophisticated nature of end customers.

1925 Annex 6 to the response to the decision pursuant to Article 6(1)(c),'Vertical Arithmetic', page 8.

1926 This argumentation is valid for all vertical links where the downstream market is desktop solutions.

1927 RFI 29 reply, question 34.

1928 See [internal document] Doc ID 4151-19416 and [internal document] Doc ID 4991-22099

(1539) *Fifth*, today's trend of reducing the number of data terminals/desktops is unrelated to the merger and therefore not expected to change due to the merger, as is for example apparent from discussions surrounding "single desk policies" of end-customers.[1929]

(1540) The Notifying Party further contends that end customers of EoD index data would be able to feed their non-Refinitiv applications with FTSE Russell EoD index data obtained over the FTSE Russell Data Delivery System (DDS).[1930] In case of a total foreclosure there would be no reason for LSEG to continue and provide its data to other data providers than Refinitiv or to clients directly, whatever the form of the data. This concern by the Notifying Party is therefore moot.

Multi-homing

(1541) When estimating the number of end-customers that would switch or add a Refinitiv desktop solution, the Commission considered that only the end-customers who do not currently obtain data from Refinitiv would be susceptible to increase the downstream revenues of the combined entity.

(1542) Refinitiv estimates that approximately [a significant percentage] Bloomberg terminal users also have an Eikon desktop.[1931] According to the the spread sheet "[internal document]" used as basis for the conclusions of the paper "Incentives to maintain wide distribution of LSEG data" submitted by the Notifying Party only [a small percentage] of the customers accessing FTSE Russel indices OED data have through a desktop solution other than Refinitiv also access the data through Refinitiv.

(1543) However in order to factor in customers who are currently not accessing FTSE Russell indices data through Bloomberg and not Refinitiv and who could have also a Refinitiv terminal, the Commission in order to take a conservative approach applied the [a significant percentage] to all the customers accessing FTSE Russell EoD indices data through Bloomberg but not Refinitiv and considered that such customers would not need to add a Refinitiv terminal.[1932]

Calculating the minimum switching rates resulting in a profitable foreclosure strategy

(1544) The Commission estimated the minimum switching rate required to make a foreclosure strategy profitable from a business perspective in two different ways.

(a) *Customers switching and adding in the same proportion as the switching rates observed in the market investigation: one end-customer switching for every four end-customers adding a terminal*. According to the second market investigation, 57% of end-customers currently sourcing FTSE Russel indices data from a competitor of Refinitiv would add a Refinitiv desktop solution in case of a foreclosure and 6% of those customers would switch their full desktop solution to Refinitiv to the exclusion of other desktop providers. This represents a customer switching fully for nine and a half customers adding a Refinitiv desktop solution. Holding this proportion constant, the Commission estimated that a foreclosure strategy would be profitable in the meaning that the profits lost upstream would be fully compensated by the profits gained

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1929 See for examples [internal document] Doc ID 4991-75804; [internal document] Doc ID 4991-29132; [internal document] Doc ID 4991-25164, page 3; [internal document] dated […], pages 320 and 341.

1930 Annex 6 to the response to the decision pursuant to Article 6(1)(c),'Vertical Arithmetic', page 6.

1931 Annex 6 to the response to the decision pursuant to Article 6(1)(c),'Vertical Arithmetic', page 5.

1932 The proportion of customers accessing FTSE Russell EOD indices data through Bloomberg but not Refinitiv is [a significant percentage] based on the spread sheet "[internal document]".

downstream if [a significant percentage] of end-customers currently sourcing FTSE Russell indices data from a competitor of Refinitiv add or switch to Refinitiv, consisting of [a significant percentage] of these end-customers adding a Refinitiv terminal and [a small percentage] of these end-customers switching their full desktop needs to Refinitiv.

(b) *No customers would switch, end-customers would only add Refinitiv desktop solutions to their existing set of products.* This scenario corresponds to a robustness test of the findings rather than the most likely scenario because the revenue downstream form customers adding a terminal is assumed to be lower than customers switching all their demand and therefore it is more conservative when estimating the incentives. The Commission determined that it would be sufficient if [a significant percentage] of informative end-customers responding to the market investigation add a Refinitiv terminal for the foreclosure strategy to be profitable. The overall switching rate observed in the second market investigation is 63% thus considerable higher than the switching rate required to make the strategy profitable even under conservative assumptions regarding the income from FTSE Russell UK equity indices, the variable profit margin of FTSE Russell UK equity indices and multi-homing.

(1545) The foreclosure would bring additional profits of EUR 30 million per year to the combined entity based on the responses of end-customers in the second market investigation.

(1546) The input to the estimate by the Commission are detailed in Table 85 below, including the sources of the information.

Table 85

Category of items	#	Item	Value
Results of the Commission's market investigation[1933]		... switching to or adding Refinitiv desktop services to continue accessing FTSE Russell UK equity indices data	[60-70]%
		... switching to Refinitiv desktop services to continue accessing FTSE Russell UK equity indices data	[5-10]%
		... adding Refinitiv desktop services to continue accessing FTSE Russell UK equity indices data	[50-60]%
LSEG FTSE Russell UK equity indices data (upstream market)	A	LSEG revenue from FTSE Russell UK equity indices data (EUR) [1934]	[...]
	B	Proportion of end of day (EoD) data in the FTSE Russell UK equity indices data revenue[1935]	[a very high percentage]
	C	LSEG revenue from FTSE Russell UK equity indices EoD data (EUR) [1936]	[...]
	D	Proportion of customers using FTSE Russell EoD index data in Refinitiv[1937]	[a very small percentage]
	E	Gross profit margin LSEG indices[1938]	[a high percentage]
	F	Profits upstream potentially lost (EUR)[1939]	[...]

1933 Question 33.1, Questionnaire 19 to information services end-customers, Doc ID 6469.
1934 [description of LSEG accounting policy]. Converted based on ECB average exchange rate GBP/EUR for 2019 (0.8777).
1935 Annex 1 to the response by the Notifying Party to the decision pursuant to Article 6(1)(c), page 5.
1936 Calculated by the Commission (A*B).
1937 Annex 1 to the response by the Notifying Party to the decision pursuant to Article 6(1)(c), page 15.
1938 Annex 122 to the Form CO.
1939 Calculated by the Commission (A*B*(1-63%)*(1-D)*E. 63% corresponds to the switching rate.

Category of items		#	Item	Value
Desktop services (downstream market)	Eikon	G	Number of FTSE index family display licenses in 2018[1940]	[...]
		H	Revenue per user for end-customers switching to Eikon (EUR)[1941]	[...]
		I	Revenue per user for end-customers adding Eikon (EUR)[1942]	[...]
		J	EBITDA margin in business segment 'Data' of LSEG internal reporting 2019[1943]	[a significant percentage]
		K	Portion of costs that are variable[1944]	[a small percentage]
		L	Profit per user for end-customers switching to Eikon (EUR)[1945]	[...]
		M	Profit per user for end-customers adding Eikon (EUR)[1946]	[...]
		N	Downstream profits in EUR from customers switching to Eikon in EUR[1947]	[...]
		O	Downstream profits in EUR from customers adding Eikon, after factoring in multi-homing in EUR[1948]	[...]
	Administrative fee	P	Administrative fee received by Refinitiv for distribution of FTSE Russell indices[1949]	[description of contractual arrangements]
		R	Additional profit of Refinitiv from incremental FTSE Russell indices distribution (EUR)[1950]	[...]
Multi-homing		S	Proportion of Bloomberg terminal users also have an Eikon desktop according to the declaration of the Notifying Party	[a significant percentage]
		T	Proportion of the customers accessing FTSE Russell EoD data through Bloomberg but not Refinitiv	[a significant percentage]
		U	Portion of customers that currently has Refinitiv terminal but is not using it to access EoD FTSE Russell indices	[a small percentage]
Foreclosure impact		V	Profit from foreclosure (in EUR)[1951]	[...]

(1547) Based on the above, the Commission established a material financial incentive for the combined entity to engage in a total foreclosure of the FTSE Russell UK equities index data.

1940 Form CO, Information Services, Annex 281.

1941 Form CO, Information Services, Annex 287 – Document 21, page 5.

1942 RFI 29 reply, question 46.

1943 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to USD [...], from Annex 49 to the Form CO.

1944 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.

1945 Calculated by the Commission (H*(1-(1-J)*K).

1946 Calculated by the Commission (G*(1-(1-J)*K).

1947 Calculated by the Commission (G*L*6%*(1-D)). 6% corresponds to the percentage of customers that would switch fully.

1948 Calculated by the Commission (G*M*57%*(1-D). 57% corresponds to the percentage of customers that would add a Refinitiv desktop.

1949 Form CO, paragraph D.198.

1950 Calculated by the Commission (P*C*(1-D)*(1-(1-J)*K)*63%). 63% corresponds to the overall switching and adding rate.

1951 Calculated by the Commission (N+O+R-F).

Robustness check of the financial analysis

(1548) In its response to the SO, the Notifying Party submitted that the income potentially lost upstream in the case of total foreclosure would be EUR [...] higher than the income used by the Commission for the calculation.[1952] EUR [...] would represent [...] revenues associated with customers who have access to FTSE Russell UK index equity data. Such additional income lost would reflect, according to the Notifying Party, the fact that the […] associated with FTSE Russell UK equity indices would cease to exist. Additionally, income cannot be extracted directly from the [...].[1953]

(1549) The Commission requested from the Notifying Party the list of indices covered by the multi-use licences. However the Notifying Party did not provide such information.[1954] According to the Notifying Party, [description of LSEG licensing and commercial policy].[1955] The Commission is therefore not able to verify whether such additional revenue would be at risk and what would be the amount at risk based on the information provided by the Notifying Party. However the Commission proceeded to a robustness check of its findings in the Table 85, where EUR […] is added to the income potentially lost upstream. The outcome of the assessment is not changed in such a scenario.

(1550) In this first robustness scenario, which includes an additional EUR [...] of revenue potentially lost, the LSEG revenue from FTSE Russell UK equity indices data (marked with letter A in Table 85) would amount to EUR [...] and profits potentially lost upstream would amount to approximately EUR [...] instead of EUR [...] data (marked with letter F in Table 85). A total foreclosure strategy would still result in a profit of around EUR [...] (instead of EUR [...] marked with the letter V in Table 85).[1956]

(1551) The Commission does acknowledge that the estimates of the financial incentives rely on the assumption that all end-customers that indicated that they would add a Refinitiv desktop solution in case of a foreclosure, would add a Refinitiv desktop solution for every user within their organisation that currently accesses FTSE Russell UK equity indices through a desktop solution. The Notifying Party indicated that a foreclosure strategy would lead users of FTSE Russell UK equity indices to share the added Refinitiv desktop solution with other users within their organisation, thereby reducing the amount of desktop solutions that they would have to license in order to access FTSE Russell UK equities indices. As explained, the Commission does not consider that this argument is substantiated, particularly because it relies on the assumption that companies using desktop solutions are today overspending on this product, as they could easily reduce the number of desktops and save costs. The Notifying Party did not present facts to substantiate its claim that desktop solution clients are currently overspending for this product. There is therefore no evidence

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1952 Annex 3 to the Response to the SO, p.3

1953 Annex 3 to the Response to the SO, p.3

1954 RFI 45 reply, p.4.

1955 Annex 3 to the Response to the SO, p.3

1956 For compleness, the Commission presents that the increase in the revenue potentially lost has the effect to also increase the administrative fee charged by refinitv on content distributed through its desktop solution, that would include in this robustness scenario the multi-user licences put forward by the Notifying Party. The gain administrative fee would therefore amount to EUR [...] instead of EUR [...], marked with the letter R in Table 85.

supporting the claim that replacement rates should be lower than 1:1 and even less evidence to substantiate replacement rates of one terminal added for every fifth user, or every twentieth user[1957].

(1552) However, in order to assess the robustness of its findings, the Commission estimated the incentives in the unlikely case that only every second user adds a Refinitv desktop solution among market participants that indicated that that they would add a Refinitiv desktop solution to their existing desktop solution. The Commission estimated that even in this scenario the combined entity would have positive financial incentives to foreclose its competitors. The profit from a foreclosure strategy would amount to EUR [...] in this scenario, instead of EUR [...] (marked with the letter V int the Table 85).[1958] This level of profits is still positive although it is not very high. Such level of profits might not have been sufficient to establish incentives in the main scenario that the Commission considers as the most likely, but it is sufficient for the purposes of a robustness scenario, in which the Commission seeks to acertain that the findings of incentives are robust even under unlikely scenarios.

(1553) The Notifying Party presented that the Commission overstated customers' willingness to pay for Refinitiv desktops.[1959] The Commission therefore tested its findings introducing sensitivity to the price of an additional Eikon terminal. The Commission estimated, based on the calculations in Table 85, that if the price of an Eikon terminal added by customers is higher than EUR [...], the total foreclosure strategy is profitable. This level is less than [...] of the current average price of an Eikon terminal. It would be irrational for the combined entity to charge prices lower than the prevailing prices to customers that have revealed their need to access the FTSE Russell UK equity index data through Refnitiv following a foreclosure strategy. The foreclosure streategy would be profitable even if such customers would receive a 50% discount to the prevailing average price.

(1554) The Notifying Party argued that the switching rates used by the Commission based on the market investigation would not be correct because end-customers included in the respondents that would face this choice only theoretically given their subscriptions and use of the FTSE Russell UK equity indices today.[1960]

(1555) To address these concerns, the Commission recalculated the switching rates and tested the robustness of its findings. If only customers that are currently licencing LSEG data were included in the sample, the proportion of customers adding a Refinitiv desktop solution would be [a significant percentage], while a further [a small percentage] would switch to a Refinitiv desktop solution altogether. Both rates are higher than the corresponding figures in Table 85 of [a significant percentage] and [a small percentage] respectively, resulting in even higher financial incentives of around EUR […] instead of EUR […] (marked with letter V in the Table 85).

1957 Clients may well decide to reduce spontaneously the number of desktops they procure, e.g. if they are restructuring, rationalising or downsizing their operations. There is however no evidence to support the claim that clients have not optimised their demand for desktop services, and would do so only if 'prompted' by the merged entity's foreclosure strategy.

1958 In this scenario the gain from the adminsitrative fee would be reduced to EUR [...] and the down stream profit from additional Eikon subscriptions added by customers would amount to EUR [...] instead of EUR [...] (marked with the letter O in Table 85).

1959 Annex 3 to the Response to the SO, p.8,

1960 Response to the SO, Information Services, Annex 3, p.6.

(1556) If among those customers that are sourcing LSEG data today only customers that do not have a Refinitiv solutions today at a firm level are counted, the results are that [a significant percentage] of respondents would switch to Refinitiv and [a high percentage] would add a Refinitiv solution. This would result in an even higher incentive to foreclose of EUR […] instead of EUR […] (marked by letter V in Table 85).[1961]

(1557) The Commission acknowledges that such estimates are based on assumptions, in particular on the price of desktop solutions, of the rate at which Refinitiv desktop solutions would be added and on the representativeness of the responses to the market investigations by the Commission. On balance and in view of the robustness checks that address a number of objections raised by the Notifying Party, the Commission concludes that it is more likely than not that the combined entity will have significant financial incentives to engage in a total foreclosure strategy.

B.1.2. Refinitiv's internal documents suggest that exclusive distribution of valuable datasets can drive additional sales

(1558) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argued that the combined entity would have little or no incentive to foreclose competing data vendors because FTSE Russell would lose the majority of its index data revenues. It also argued that the value of FTSE Russell indices would be destroyed, which would make a majority of index users switch indices and would discourage take up of FTSE Russell indices by new users. In the Notifying Party's view, this means that the combined entity would have no credible commercial incentive to engage in any input foreclosure strategy.[1962]

(1559) Contrary to the claims of the Notifying Party, the economic analysis presented in recitals (1502)ff above shows that the combined entity would have the financial incentive to engage in a total foreclosure strategy. In addition, an Oliver Wyman presentation commissioned by Refinitiv in 2017 concluded that [commercial strategy] of differentiated content could be profitable for Refinitiv, which could provide an incentive to [commercial strategy],[1963] which could be applicable to UK equities index data. This document is analysed in more detail in recitals (1209)ff above.

(1560) Moreover, the Notifying Party's claim that end-customers would switch indices as a result of an input foreclosure strategy targeting rival desktop services providers is not supported by the results of the market investigation. As discussed in the Commission's economic assessment above, 63% of end-customers would add or switch to a Refinitiv desktop service if the combined entity foreclosed access to FTSE Russell UK equity indices. Given the high retention rate of end-customers, there is no basis to argue that the value of the index would diminish to such an extent that it would modify the profit calculations of the combined entity to engage in a total foreclosure strategy (which, as discussed above, the combined entity would have a financial incentive for).

(1561) The fact that the combined entity would have the incentive to distribute data exclusively was also echoed by market investigation respondents. For example, end-

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1961 The Commission notes that only 4 respondents would meet these criteria, impairing the representativness of the responses compared to the estimated in Table 85.

1962 Response to the decision pursuant to Article 6(1)(c) decision, paragraphs 409 and 410.

1963 [internal document], Doc ID 4992-56.

customer Société Générale expressed that: "[s]*ome vendors may only sell some information/data as part of desktop subscriptions imposing to subscribe to a full desktop when only some information/data are needed. (...) This might be perceived as unfair and reasonable commercial practices notably when some information/data were sold separately in the past or when there is no genuine reason that such information/data are only sold as part of a desktop subscription*."[1964]

(1562) These two points confirm the Commission's finding that the combined entity would have the incentive to distribute exclusively FTSE Russell UK equities index data through Refinitiv desktop services, foreclosing rival data vendors in the downstream market.

(1563) In its response to the SO, the Notifying Party submitted that the Commission does not explain why the incentives to engage in exclusive distribution or upselling opportunities would merit a strategic change in FTSE Russell's strategy, which could lead to a diminishing of its brand value.[1965] However, the Notifying Party has not substantiated the claim that the foreclosure strategy would hinder the wide distribution of FTSE Russell to an extent that would materially impact its brand value, nor has it attempted to quantify this brand value loss. As explained above FTSE Russell's brand has considerable traction for UK equities, and UK equity indices will continue being widely available to end-customers through Refinitiv's desktop services and other means (e.g. CRTDs, non-real-time channels) post-Transaction. It will also continue to have broad coverage in specialised and mainstream media that reach the investor community broadly speaking, a factor that contributes to the brand.

(1564) The Notifying Party submitted that the Commission does not lend any weight to the argument that the distribution of index data is also driven by end-customer demand, which suggests that end-customers' demand for indices is also linked to the data vendors they use and their functionalities.[1966] However, the results of the market investigation do not support this conclusion. When asked what are the most important parameters that they take into consideration when licensing indices, "Availability through chosen data vendor" is the only ranked eighth out of eleven parameters. Parameters that are considered more important include "Brand name", "Client mandate/request", "asset class/geographies covered", and "Price".[1967] In this context, the Commission concludes that, contrary to the Notifying Party's view, demand for indices is not closely linked to the data vendors they use and their functionalities.

B.2. Partial foreclosure through technical degradation

(1565) The combined entity will have an incentive to engage in an input foreclosure strategy if doing so proved profitable. The economic analysis presented in recitals (1502)ff show that the combined entity would have the incentive to engage in total input foreclosure, altogether depriving rival desktop services providers from access to FTSE Russell UK equities index data. Table 86 below shows a summary of the results of the market investigation as concerns the switching and adding rates of end-customers.

1964 Société Generale's response to question 7.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

1965 Response to the SO, Information Services, paragraphs 243ff.

1966 Response to the SO, Information Services, paragraphs 243ff.

1967 Response to question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.

Table 86

Upstream Market	Downstream Market	Type of Input Foreclosure	Percentage of End-customers...[1968] ...switching to Refinitiv desktop services	...adding Refinitiv desktop services	...only keeping existing desktop services
UK equities indices	Desktop Services	Full[1969]	6%	57%	36%[1970]
		Partial[1971]	2%	41%	57%[1972]

Source: Question 31, Questionnaire 19 to information services end-customers.

(1566) The same economic analysis would support that the combined entity also has the incentive to engage in partial input foreclosure based on technical degradation (i.e., offering FTSE Russell UK equities index data with higher latency or otherwise lower quality). In the market investigation, both in a partial foreclosure scenario concerning FTSE Russell UK equities index data, 43% of end-customers confirmed that they would switch all of their desktop services requirements to Refinitiv or add a Refinitiv desktop on top of their existing desktop services from other providers. Table 86 above showed that the percentages of end-customers switching or adding desktop services are not significantly different in the full and partial foreclosure scenarios.[1973] The combined entity can thus expect to make only slightly less gains in the downstream market for desktop services through partial input foreclosure as with total input foreclosure.

B.3. Common considerations regarding incentives for total and partial foreclosure

(1567) This Section discusses three arguments of the Notifying Party regarding the combined entity's incentives to engage in total or partial input foreclosure.

B.3.1. Regulatory scrutiny does not prevent the combined entity from engaging in foreclosure

(1568) The Notifying Party argues that regulatory scrutiny is a sufficient deterrent preventing the combined entity from engaging in a foreclosure strategy. The current regulatory environment does not support the Notifying Party's argument.

(1569) Recitals (1372)ff above explain the lack of regulatory coverage for index distribution in the EEA. The considerations in that Section are not specific to customers accessing indices via CRTDs, and therefore are equally applicable to customers accessing indices via desktop services. Taking into consideration the assessment covered in the aforementioned Section, the Commission does not consider that the fear of an uncertain regulatory reaction would represent a sufficient deterrent to prevent the combined entity from pursuing in a full or partial foreclosure strategy.

1968 Estimated based on informative end-customers (i.e., excluding all respondents who selected "Other", unless their reply could not be categorized to one or more of the options provided).

1969 Question 31.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1970 Without adding any other product, thus foregoing access to FTSE Russell UK equity indices.

1971 Question 31.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

1972 Without adding any other product, thus accepting slower/lower-quality access to FTSE Russell UK equity indices.

1973 In the total foreclosure scenario, 63% of end-customers would switch or add, whereas in the partial foreclosure scenario 44% of end-customers would switch or add.

B.3.2 The majority of end-customers would not have the power to retaliate against the combined entity

(1570) The Notifying Party argues that any attempt by the combined entity to foreclose end-customers would be met with immediate customer backlash.

(1571) The Notifying Party's argument was not confirmed by the results of the Commission's market investigation, which indicate that the majority of customers are not capable of retaliating against the combined entity. This is described in Recitals (1378)ff above, where it is explained that the majority of end-customers would not engage in any successful retaliatory practices, that the bargaining power of large end-customers does not translate into buyer power for end-customers as a whole, and that, if anything, the negotiating position of end-customers would deteriorate post-Transaction.

(1572) The issues highlighted by the Commission in the Section above are exacerbated by the difficulties experienced by customers in switching from a desktop services provider to another. Indeed, 74% of end-customers expressed that they would incur in significant or very significant costs if they were to switch all of their desktop services requirements from one provider to another, whereas 40% said the costs would be significant or very significant if they were to switch part of their desktop services requirements.[1974] 56% of informative end-customers submitted that they had not switched all or part of their desktop services requirements from one provider to another in the past 3 years.[1975]

(1573) Difficulties in switching are highlighted by end-customers responding to the market investigation:

(a) End-customer Bank of Montreal underscores the high costs of switching desktop services: "*The cost of switching is significant due to the full review and change management that is required. It is not necessarily the cost of the desktop solution i.e. vendors want you to switch and will therefore offer a good price to switch. The real cost is the internal work to first of all confirm that a switch is possible and then to the make the switch itself. Any switch is a very significant project involving a lot of business analyst time.*"[1976]

(b) End-customer Banco BPM indicates that there are hurdles in addition to the financial cost of adding a desktop service: "*The solution must cost less than the current one or be included in an advantageous commercial agreement. The training of people must be carried out by the supplier. Replacement does not only depend on costs.*"[1977]

(c) End-customer Société Générale explained that in one occasion Refinitiv did not allow it to complete a partial switch to a rival desktop service: "*We switched from Refinitiv Eikon Research and Advisory variant in our Corporate and Investment Banking division (Equity Capital Market, Merger & Acquisition...)*

1974 Questions 15 and 16 in Questionnaire 9 to information services end-customers, Doc ID 6480.

1975 Question 14, Questionnaire 9 to information services end-customers, Doc ID 6480.

1976 Bank of Montreal's response to question 15, Questionnaire 9 to information services end-customers, Doc ID 6480.

1977 Banco BPM's response to question 15, Questionnaire 9 to information services end-customers, Doc ID 6480.

to another desktop Solution. Refinitiv would not have let us do a partial switch."[1978]

(1574) In this context, it would not be correct to extrapolate a supposed market power concentrated in a small set of the customer base to the large majority of end-customers of Refinitiv's desktop services.

(1575) Nor is the Notifying Party's argument that end-customers have multi-product relationships with Refinitiv that they leverage in order to get better terms in their agreements supported by the market investigation results or by the internal documents. The same analysis undertaken in recitals (1226)ff above is equally relevant here.

B.3.3. Acquisitions of index providers by data vendors (or vice versa) have oftentimes led to index policy changes, including foreclosure

(1576) The Notifying Party's argument that past examples of vertical integration indicate that the incentives wide distribution outweigh the incentives to foreclose competitors downstream[1979] is contradicted by the outcome of past M&A activity in the financial services sector. This is explained in more detail in the Commission's assessment in recitals (1383)ff above.

(1577) Consequently, the existence of ample examples of index policy changes following the acquisition of an index provider by a data vendor (or vice versa) and the existence of a few examples of potential foreclosure support the plausible existence of an incentive for the combined entity to engage in a foreclosure strategy.[1980]

C. Impact on effective competition

(1578) A total/partial input foreclosure strategy involving FTSE Russell UK equities index data would significantly impede effective competition in the market for desktop services.

(1579) In the event of a total/partial input foreclosure strategy, Refinitiv's rivals would only be able to offer a desktop product of lesser quality, which does not allow (high quality) access to FTSE Russell UK equities index data. Refinitiv's rivals would be forced to compete less effectively than today for new opportunities. This would impact in particular Refinitiv's smaller rivals.[1981] Moreover, a total/partial input foreclosure strategy would allow Refinitiv to "*get a foot in the door*" with the end-customers that switched to or added Refinitiv desktops. Eventually, this would allow Refinitiv to displace other desktop service competitors – in particular smaller rivals – that serve these end-customers. A total/partial foreclosure strategy regarding FTSE Russell UK equities index data would raise even higher the barriers to entry that already exist in desktop services. The impact of the foreclosure on rivals would be amplified by the combined entity's ability to use commercially sensitive information to target rivals' customers (see Section 4.5.8 for a discussion of these non-coordinated effects).

(1580) Moreover, a total/partial input foreclosure strategy would harm end-customers of desktop services in the short term. Many of them would be forced to add Refinitiv

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1978 Societe Generale's response to question 14, Questionnaire 9 to information services end-customers, Doc ID 6480.

1979 Response to the SO, Information Services, paragraph 189ff.

1980 Non-Horizontal Merger Guidelines, [2008] C265/5, paragraph 45.

1981 The impact would be lower for Bloomberg, which is the number one player in the market for desktop services.

desktops to continue accessing FTSE Russell UK equities index data.[1982] As a result, end-customers would have to pay more for desktop services without any additional benefit, simply to replicate the index data access conditions that they have today.

C.1 A total/partial foreclosure would impact competition

C.1.1 Foreclosure of smaller rivals by decreasing the quality of their desktop services

(1581) A total/partial foreclosure strategy by the combined entity would have an impact on the downstream market for desktop services, in particular on smaller rivals.

(1582) As explained in recitals (1234)ff above, Bloomberg is a close competitor of Refinitiv, offering comparable high-tier, premium (i.e. all-inclusive) desktop services products. At the same time, Refinitiv also competes with other rivals regarding its mid and low-tier desktop services (i.e. non-premium solutions), which are the products accessed by [a high percentage] of Refinitiv's users in 2018. Regarding these services, Refinitiv competes more closely with smaller rivals like FactSet, Iress, DTN, Infront Italia, Fidessa, Morningstar, who all offer non-premium solutions tailoring the content and functionalities to specific customer segments.[1983] The pricing of these products is significantly lower than Bloomberg's premium product.[1984]

(1583) As explained in recitals (1235)ff, the market investigation confirmed that smaller rivals do compete with Refinitiv. End-customers were asked to rank the desktop services providers, and the most commonly named Top 5 desktop service providers in the EEA were (in order) Bloomberg, Refinitiv, FactSet, S&P and Morningstar. In particular, end-customers indicate that Bloomberg is the closest competitor for trading floor terminals, while the others are the closest competitors in other functions (i.e. off-trading floor activities, such as benchmarking indices). In fact, Bank of America submits that "[i]*n the off-trading floor, Factset is the strongest competitor vs. Refinitiv*"; Barclays Bank adds "*In Investment Banking (i.e. capital markets and M&A advisory) it is Factset*"; Bank of Montreal confirms, "*For Front-office sales & trading – Bloomberg [;] For research – S&P CapIQ and Factset [;] For Investment Banking – S&P CapIQ and Factset*"; Unicredit submits "*Bloomberg is Refinitiv's*

1982 Or at least, to continue accessing them with the same latency and quality level that they enjoy today.

1983 As one end-customer respondent puts it, "*with Eikon Premium..., Refinitiv is positioned on the "high-tier" desktop segmenet. On this segment, the competitor is Bloomberg. With other Eikon desktop variants [...], Refinitiv is positioned on the low tier or mid tier information desktop segment competing respectively with FactSet or FIS MarketMap (in the low tier) or with [S&P] or FactSet in the mid-tier*". See Question 12, Questionnaire 9 to information services end-customers, Doc ID 6480.

1984 For example, the pricing of Refinitiv's non-premium variants can range from EUR 3,576-13,224 per year. Based on publicly available information, FactSet's desktop service is priced at approximately EUR 12,000 per year (see https://www.wallstreetprep.com/knowledge/bloomberg-vs-capital-iq-vs-factset-vs-thomson-reuters-eikon/, last accessed on 8 June 2020). In its Response to the SO, the Notifying Party states that price is only one of the many parameters of competition in the market for desktop services. According to the Notifying Party, it is impossible to delineate a premium/non-premium segmentation of the market in any meaningful way (Response to the SO, paragraph 267). The Commission notes that premium and non-premium desktop services belong to the same relevant market (see recitals (278) above). In this market, Refinitiv competes against Bloomberg which only offers premium services and against smaller rivals which offer mid-tier and low-tier services. Contrary to the Notifying Party's claim, there are internal documents of the Parties which distinguish between the two types of desktop services (e.g[internal document], 17 July 2019, Doc ID 4296-515, page 14; Oliver Wyman presentation prepared exclusive for the Parties in the context of the Transaction, [internal document], 28 January 2019, Doc ID 884-538, page 25).

main competitor in on-trading floor use, S6P CIQ is the competitor in off-trading floor use".[1985]

(1584) Refinitiv's internal documents shown in recital (1236) above confirm that, today, Refinitiv competes closely not only with Bloomberg but also with smaller rivals.

Decrease in quality of rival desktop services

(1585) According to the Non-Horizontal Merger Guidelines, a merger raises competition concerns because of input foreclosure when it would lead to increased prices in the downstream market thereby significantly impeding effective competition.[1986] Throughout the Guidelines, the expression "increased prices" is used as shorthand for the various ways in which a merger may result in competitive harm, including decrease in quality of goods and services.[1987]

(1586) In the present case, a total/partial input foreclosure strategy by the combined entity would have a significant impact on effective competition in desktop services, as it would lead to a decrease in the quality of services offered by Refinitiv's rivals.

(1587) If the combined entity decided to engage in total/partial input foreclosure regarding FTSE Russell UK equities index data, Refinitiv's rivals would only be able to offer a desktop product with no or low-quality access to this data. As a result, their desktop product would be of lesser quality, competing less effectively in terms of "data coverage", which as discussed above is the primary consideration for end-customers seeking to license a desktop solution. [1988]

(1588) Moreover, according to 48% of end-customers, the availability of FTSE Russell UK equities index data in itself is an important parameter for the selection of desktop services.[1989] This parameter would be altogether missing or significantly compromised for rival desktop solutions, in case the combined entity decided to engage in total or partial input foreclosure involving FTSE Russell UK equities index data. As explained above, 67% of data vendors report that FTSE Russell indices are a key part of their offering to their end-customers.[1990] This was confirmed by data vendors responding to the Commission's market investigation:

(a) Concerning FTSE Russell index data, data vendor Factset explained that "*FactSet's desktop solution cannot be used effectively by customers without these essential datasets. Without these dataset in FactSet's workstation, customers would be forced to switch to Refinitiv's desktop solution and competition in the desktop market would be squashed.*" [1991]

(b) Data vendor IHS Markit asserted that "[i]*t is critical that our DeltaOne business, as an index aggregator, has access to all indices that are licensed by customers in order to [provide] a consolidated feed*".[1992]

(c) When asked about the impact that not being able to carry FTSE Russell UK equities indices would have on its desktop solutions, data vendor Morningstar indicated that "*FTSE Russell data is fundamental to the venue data that*

1985 Question 8, Questionnaire 9 to information services end-customer, Doc ID 6480.
1986 Non-Horizontal Merger Guidelines, paragraph 47.
1987 Non-Horizontal Merger Guidelines, footnote 8.
1988 Question 8, Questionnaire 9 to information services end-customer, Doc ID 6480.
1989 Question 30.1, Questionnaire 19 to information services end-customers, Doc ID 6469.
1990 Question 197, Questionnaire 8 to data vendors, Doc ID 6479.
1991 Factset's response to Question 39, Questionnaire 8 to data vendors, Doc ID 6479.
1992 IHS Markit's response to question 197, Questionnaire 8 to data vendors, Doc ID 6479.

Morningstar distributes to its customers and the increase in pricing would impact the ability to effectively compete in the market."[1993]

(1589) In the Notifying Party's view the fact that a majority of end-customers would maintain a desktop solution from Refinitiv's rival, despite this decrease in quality, is indicative that there is no harm to competitors. However, foreclosure can exist even if the combined entity's rivals are not forced to exit the market.[1994] Table 86 above shows that in case of total foreclosure, more than 60% of end-customers would add Refinitiv desktop services driven by the need to continue licensing FTSE Russell UK equities index data. Absent such foreclosure, this would not be necessary. Refinitiv rivals alone would not be able to cover the desktop service requirements of 48% of end-customers who find FTSE Russell UK equities index data important in their selection of a desktop service provider. The fact that because of a foreclosure strategy, Refinitiv's rivals would no longer satisfy these requirements means that they would be forced to compete less effectively in the market for desktop services.

(1590) Moreover, in the Commission's market investigation, 6% of end-customers submit that they would switch away from their desktop provider to Refinitiv in case of total foreclosure regarding FTSE Russell UK equities index data.[1995] This loss of sales would further weaken the position of Refinitiv's competitors in the market for desktop services and compound the impact from the degradation of the quality of their offering.

(1591) As explained in footnote 1981 above, a total/partial foreclosure strategy by the combined entity is less likely to have a significant impact on Bloomberg – the number one player in desktop services – that on smaller rivals. Whilst the quality of its overall desktop service will be lower, it will likely continue to compete effectively in the market with its premium solution thanks to its key instant messaging tool.[1996]

(1592) The remainder of this Section focuses on the impact of a total/partial input foreclosure strategy on smaller rivals that compete with Refinitiv in mid-tier and low-tier desktop services.[1997]

Impact on smaller rivals regarding new end-customer opportunities

(1593) By pursuing a total/partial foreclosure strategy, the combined entity would be able to exclude the smaller rivals that are competing in non-premium desktop services (e.g., FactSet, S&P, Iress, ISS, DTN, Infront Italia). A foreclosure strategy would encourage new end-customers of desktop services to select Refinitiv's product, to the

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1993 Morningstar's response to question 26, Questionnaire 18 to data vendors, Doc ID 6468.

1994 Non-Horizontal Merger Guidelines, paragraph 29.

1995 Question 31.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

1996 In its Response to the SO, the Notifying Party notes that other desktop service providers have functionalities that are highly valued by end-customers, e.g., [competitive analysis of Refinitiv] (Response to the SO, Information Services, paragraph 122). However, the Notifying Party did not submit any evidence that FactSet's Cornerstone also drives adoption by new customers in the same way as Bloomberg's instant messaging feature. FactSet's limited market share in desktop services suggests the opposite ([5-10]% in 2019; [5-10]% in 2017-2018).

1997 In its Response to the SO, the Notifying Party submits that the combined entity would not have the incentive to engage in an input foreclosure strategy explicitly targeted to smaller rivals. According to the Notifying Party, the combined entity would not have the incentive to incur the costs for such a strategy if Bloomberg was not marginalised (Response to the SO, Information Services, paragraph 266). Contrary to the Notifying Party's claims, the Commission does not refer to an input foreclosure strategy that would target only smaller rivals but not Bloomberg. It considers an input foreclosure strategy by the combined entity targeting all desktop services rivals but leading to foreclosure of smaller rivals and new entrants.

detriment of smaller rivals. Indeed, as explained above, end-customers are driven by the possibility to access valuable data sets even if they do not license them today.[1998] In the event of a total/partial foreclosure strategy, smaller rivals with no or limited access to FTSE Russell UK equities index data would not be able to compete effectively for new opportunities with these end-customers.

(1594) Indeed, in the market investigation, several smaller data vendors raised strong concerns regarding the impact of a total/partial foreclosure strategy on their competitive position in the market for desktop services.

(a) Data vendor FactSet provides an account of the competitive dynamics at play in desktop services, which in its opinion would lead to a reduction in competition if access to FTSE Russell index data is denied to data vendors. "*LSEG's index data is core to a desktop solution and necessary to remain competitive in the market. Workstation purchasing decisions are largely driven off of data availability as this is combined with reporting solutions that enable client workflows. While some customers may still purchase a rival tailored solution with LSEG indices data due to either (i) certain functionality only available via that solution, or (ii) because the client may not require the particular indices as part of their workflow, the majority of clients would not be able to purchase a desktop solution without LSEG index data or, at the very least, would have to increase their number of providers of desktop solution by purchasing different types of solutions from different vendors at increased cost.*."[1999]

(b) Data vendor IRESS expressed "[s]*trong concerns with consolidation of the supply of LSEG data (venue, indices, security reference identifiers) with a top 2 global content creator and distributor of data (refinitiv). Any arrangements that may be formed to provide such data exclusively over the Refinitiv products will severely impact competition, harm liquidity provision, and customer access to data at fair and reasonable rates.*"[2000]

(c) Regarding the impact that foreclosure of LSEG data would have on its business, DTN said "*it would cause a small percentage of customers to cancel and would reduce the competitive nature of our products.*"[2001]

(d) According to Morningstar, total foreclosure of LSEG data would lead to "*potential loss of business and potential restrictions which Morningstar would require in order to conduct business*".[2002]

(e) As explained above, all informative small data vendors, indicated that end-customers would not choose to purchase a desktop service from a rival of Refinitiv if they knew that there is no possibility to access FTSE Russell indices through them.[2003]

1998 See recital (1242) above.

1999 Factset's response to question 25, Questionnaire 18 to data vendors, Doc ID 6468.

2000 IRESS' response to question 39, Questionnaire 8 to data vendors, Doc ID 6479.

2001 DTN's response to question 36, Questionnaire 8 to data vendors, Doc ID 6479.

2002 Question 36.1, Questionnaire 8 to data vendors, Doc ID 6479.

2003 Response to Question 25, Questionnaire 18 to data vendors, Doc ID 6468.

Impact on smaller rivals regarding displacement from existing customer base

(1595) A total/partial input foreclosure strategy would allow the combined entity to "*get a foot in the door*" with several new end-customers who today do not use Refinitiv desktops (at least not to access FTSE Russell UK equities index data).

(1596) As explained above, the market investigation shows that in case of total/partial input foreclosure, the majority of end-customers would stick to their existing desktop provider and add Refinitiv so that they can continue to access FTSE Russell UK equities index data.[2004] In the long term, Refinitiv could use this opportunity to displace the existing desktop provider and supply all or most of the desktop requirements of the end-customer. This would be exacerbated by the combined entity's access to commercially sensitive information relating to their rivals' end-customers, which could be used by the combined entity to poach end-customers and to compete less aggressively in the downstream market for desktop services. Section 4.5.8 includes a competitive assessment of the distortive effects on competition that the access to commercially sensitive information has on the market for desktop services.

(1597) "*Foot in the door*" strategies are not uncommon for Refinitiv already today, as regards its desktop services. Refinitiv's displacement techniques have particularly focused on smaller desktop services providers. The Commission's assessment of the evidence supporting Refinitiv's "*foot in the door*" strategies in recitals (1246)ff is also relevant here.

(1598) LSEG's internal documents also support the concerns of smaller rivals in the market investigation. This is explained in more detail in recital (1250)above.

(1599) The Notifying Party argues that the proposed Transaction cannot foreclose the smaller rivals in desktop services because end-customers multi-home in this market. However, the ability or desire of end-customers to multi-home is limited by financial and data optimisation considerations. End-customers seek to rationalise their consumption of data. For end-customers who value FTSE Russell index data, Refinitiv's desktop services must be one of their sources for real-time data, and therefore for these end-customers the ability to add additional desktop services is limited by their desire to limit data costs. This could impede rivals from effectively competing with Refinitiv's desktop services in terms of quality.

(1600) In its response to the SO, the Notifying Party submits that there is nothing anticompetitive about cross-selling different products to existing customers or offering enterprise-wide licensing models for desktop services and other solutions.[2005] However, what the Commission takes issue with is not cross-selling or the enterprise-wide licensing models as such. Rather, it is the displacement of existing smaller rivals, which the combined entity would achieve as a result of "*getting a foot in the door*" post-Transaction, via input foreclosure strategies involving UK equities index data.

2004 Question 31, Questionnaire 19 to information services end-customers, Doc ID 6469.

2005 Response to the SO, Information Services, paragraph 123(c) and (d).

The role of multi-homing

(1601) Finally, in its response to the SO, the Notifying Party argues that the proposed Transaction cannot foreclose the combined entity's rivals in desktop services because end-customers multi-home in this market already today.

(1602) The Notifying Party's argument is not capable of modifying the Commission's assessment that the proposed Transaction would have an impact on effective competition in the market for desktop services. *First*, the Commission notes than only "over [a significant percentage]" of end-customers who access FTSE Russell real-time index data through a datafeed under a display licence do multi-source this data from Refinitiv and other providers.[2006] *Second*, as explained in recital (1253) above, multi-homing in desktop services appears to be in decline, which suggests that the ability for the combined entity to cause harm to end-customers by forcing them to add a Refinitiv desktop service to continue accessing UK equities index data would be present.

(1603) Therefore, for the reasons explained in recitals (1587)ff, a foreclosure strategy regarding UK equities index data would lead to a decrease of the quality of the product offering by all desktop services providers, which would have a significant impact on the ability of small rivals to compete with Refinitiv, thus negatively impacting the downstream market for desktop services.

C.1.2. Foreclosure of undertakings entering or expanding in the market for desktop services

(1604) As discussed in recitals (1255)ff above, barriers to entry in the market for desktop services are high. Despite this, market respondents indicated that entry with tailored solutions in niche sub-segments could be possible. [2007] However, one of the most important entry barriers in the market for desktop services is licensing valuable content.[2008]

(1605) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party took the view that entry barriers could not be raised as a result of the Transaction, because FTSE Russell index data is not an important input into the downstream market. However, as explained in recitals (1484)ff above FTSE Russell UK equities index data is an important input for desktop services. A total/partial input foreclosure concerning FTSE Russell UK equities index data would make it even more difficult for players to enter or expand into the market for desktop services than it already is today. The mere likelihood that the combined entity would carry out a foreclosure strategy post-Transaction may create a strong deterrent effect on potential entrants.[2009]

(1606) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party argues that if no entry is anticipated in the market for desktop services in the next 2-3 years,

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2006 See recital (1284) above.

2007 See responses to Question 31, Questionnaire 8 to data vendors, Doc ID 6479, and HSBC's response to Question 25, Questionnaire 18 to data vendors, Doc ID 6468: "'[w]*e would not expect a new desktop solution to be launched to match the capability of either Bloomberg, Refinitiv or FactSet. The barrier to entry is relatively high and competitors tend to focus on the niche areas*".

2008 See Factset's response to Question 198.1, Questionnaire 8 to data vendors, Doc ID 6479: "*There is a high barrier to entry in this market. Licensing of source data comes at a high cost, including derived data rights licenses from the venues.*"

2009 See Non-Horizontal Merger Guidelines, paragraph 49.

the Transaction cannot negatively impact the prospects of new entrants in this time horizon.

(1607) However, contrary to the Notifying Party's claims, entry seems to be possible in the market for desktop services concerning (non-premium) segments of the market. End-customer HSBC states: "[w]*e would not expect a new desktop solution to be launched to match the capability of either Bloomberg, Refinitiv or FactSet. The barrier to entry is relatively high and competitors tend to focus on the niche areas*".[2010] Data vendors confirm this.[2011] The fact that barriers to entry are already high today does not mean that the proposed Transaction cannot make future entry or expansion even more difficult. The Commission's conclusion is that a total/partial foreclosure strategy by the combined entity would do exactly that, further reducing the competitive pressure on Refinitiv and Bloomberg.[2012]

(1608) In its response to the SO, the Notifying Party submits that certain smaller vendors exert a significant competitive constraint to larger providers, despite having no direct access to LSEG index data. It also submits the majority of EoD licence revenue comes from [type of license], which indicates that the majority of entrants would not be harmed by a foreclosure strategy. [2013]

(1609) Regarding the Notifying Party's first argument, it does not present any evidence to substantiate the claim that smaller vendors exert significant competitive constraint on larger providers. Concerning the claim that the majority of entrants would not be harmed by a foreclosure strategy, such a conclusion cannot be drawn form the fact that EoD licence revenue comes primarily from [type of license]. As shown in Section 4.5.5.2.B.1.1 above, the combined entity has the economic incentive to start distributing FTSE Russell UK equities index data only through Refinitiv desktop solutions, meaning that it would no longer allow redistribution of these indices through rival data vendors. This implies that FTSE Russell's sources of revenue would no longer put as much emphasis on [type of license]. This raises the barriers to entry for potential entrants, as their product offering will be of lesser quality than that of Refinitiv's.

(1610) Therefore, for the reasons explained in this section, a foreclosure strategy regarding UK equities index data would lead to an increase of the entry barriers to the desktop services providers, which would have a significant impact on the ability of potential rivals to enter or expand into this market, thus negatively impacting the downstream market for desktop services.

2010 Question 13.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2011 Question 31, Questionnaire 8 to data vendors, Doc ID 6479. Data vendor FactSet indicates: "[d]*ue to high barriers to entry in the desktop solutions market, FactSet does not believe it likely that there will be additional companies supplying desktop solutions... However, for sub-sections of the desktop market with particular niche solutions, it is more likely to occur...*". S&P notes: "[b]*ased on current trends, it is likely that new entrants will provide custom desktops for clients to use with various data vendors*"..

2012 This is in line with the Commission's decisional practice, where the Commission has found that input foreclosure could raise even higher barriers in markets where entry/expansion was already very difficult pre-Transaction. See e.g., Commission decision of 29 October 2018, Case M.9019 – *Mars/Anicura*, paragraph 126 and Commission decision of 2 April 2003, Case M.2876 – *Newscorp/Telepiu*, paragraph 126.

2013 Response to SO, Information Services, paragraphs 269ff..

C.2. A total/partial foreclosure strategy would require end-customers to pay more for desktop services to be able to access the same data

(1611) A full or partial input foreclosure strategy would lead to higher prices for end-customers, who would have to purchase and additional product from Refinitiv to maintain access to the combined entity's products.

(1612) As explained above, 74% of end-customers confirmed that switching costs, even for simply adding a desktop services or switching part of the requirements to an alternative provider, are significant or very significant, with a further 12% expressing that the costs would be moderate.[2014] Moreover, as discussed above if the combined entity decided to exclude rival providers of desktop services from access to FTSE Russell UK equities index data, 63% of informative end-customers would purchase additional desktop solutions from Refinitiv to access the data.[2015] This is also true in the event of partial foreclosure by technical degradation of FTSE Russell UK equities index data, where 43% of informative end-customers would purchase additional desktop solutions from Refinitiv to ensure fast and high-quality access to the data.[2016] In this sense, a majority of end-customers (in a total foreclosure scenario) and a large percentage of end-customers (in a partial foreclosure scenario) would be impacted by having to incur significant to very significant costs as a result of the Transaction.

(1613) Customers who would switch or add Refintiv as a desktop services provider would be harmed in the following ways.

(1614) *First*, end-customers would have to purchase at least one additional desktop service to access the data from the combined entity. As explained in recital (1529)above, the average yearly revenue per Eikon user is EUR […], and the average number of users per customer is […]. This means that at the on average each customer will have to spend an additional EUR […] annually to continue accessing FTSE Russell UK equities index data in the same conditions as they do today. This is a significant amount of additional costs to have to incur in order to access the data that they already access today from their current provider(s).

(1615) *Second*, in addition to the cost of adding a Refinitiv desktop services, end-customers would be exposed to additional costs and switching risks. These could be, for instance, costs related to the IT integration of the new desktop service,[2017] cost of training staff,[2018] costs changing custom models and algorithms which are tied to the current desktop services provider,[2019] as well as the cost of many man-hours needed to pilot the switch.[2020] End-customer Bank of Montreal elaborated on this, explaining that "[i]*t needs to be reiterated that the barrier to change is very very rarely the direct cost of one product v's another. The cost is the cost of change i.e. the use of a*

2014 Questions 15 and 16 in Questionnaire 9 to information services end-customers, Doc ID 6480.

2015 Question 31.1, Questionnaire 19 to information services end-customers, Doc ID 6469.

2016 Question 31.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

2017 Allfunds Bank's response to Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2018 Banco BPM's response to Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2019 Enel Global Services' response to Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2020 See for instance Standard Life Aberdeen, Nplus1 Singer Capital Markets Limited, or Bank of Montreal's responses to Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

product is often so embedded into the workflows of a business that unravelling this is a significant task."[2021] End-customers also expressed concern that changing desktop services provider entailed risks as well, such as service interruption,[2022] or the quality differences in the data or analytics of the new provider.[2023] The majority of these costs and risks apply also to partial switches of desktop services needs.[2024]

(1616) *Third*, even end-customers who expressed that they would not switch or add, and would therefore forego the combined entity's UK equities indices, might have to temporarily add a Refinitiv desktop service to continue accessing UK equities index data. This might be the case for asset managers, who as explained above could have mandates with index licenses for a period of minimum 3 to 5 years,[2025] which would limit their ability to switch away from FTSE Russell indices to prevent foreclosure by the combined entity, and instead being forced to add or switch to a Refinitiv desktop service to continue accessing FTSE Russell real-time index data. An internal e-mail from [LSEG senior employee] [discussion for LSEG strategy].[2026]

(1617) *Fourth*, internal documents suggest that the combined entity could have the incentive to upsell products and services to switching customers. The Commission explains this in more detail in recital (1424) above.

(1618) *Fifth*, not only will the end-customers of the Parties be harmed, but the end-customers' own customers could also be harmed, as explained in recital (1425) above.

(1619) Moreover, respondents to the market investigation expressed that harm to end-customers in the form of additional costs could be expected as a result of the Transaction.

(a) 75% of informative data vendor respondents and 38% of informative end-customers expressed that they expect the Transaction to have a negative impact in the downstream market for desktop services.

(b) Data vendor Factset submitted that "[t]*he majority of clients, who for cost purposes try to focus their desktop solutions to as few vendors as possible, would be forced to subscribe to Refinitiv's solution due to the necessity of LSEG index data. Those clients who can, will move as much of their workflow as possible to a single provider for cost efficiencies, resulting in decreased competition in the desktop solution market. Those who are unable to switch all of their workflow to one provider will find themselves forced to license with multiple providers at increased cost, to the ultimate detriment of investors who will carry that cost in increased management fees*."[2027]

(c) End-customer Société Générale indicated that "[t]*here is a risk that the Transaction gives more opportunities to the combined entity to bundle or make*

2021 Bank of Montreal's response to question 20, Questionnaire 9 to information services end-customers, Doc ID 6480.

2022 Deutsche Bank's response to Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2023 E.ON SE's response to Question 15.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2024 Responses to question 16.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

2025 RIMES Position Paper, 12 August 2020, paragraph 20, Doc ID 5835.

2026 The e-mail explains that "[LSEG internal discussion of customer usage]". Source: [internal document], Doc ID:4188-62759.

2027 Factset's response to question 25, Questionnaire 18 to data vendors, Doc ID 6468.

exclusive LSEG indispensable or very hard to replace data and capabilities into Refinitiv desktops as a strategy to force new desktop subscriptions. (...) This would distort the competition on the information desktop solutions market."[2028]

(d) End-customer Nplus1 Singer Capital Markets expressed concern that the Transaction would result in a negative outcome for the market of desktop solutions, and expressed the following: "[w]*e believe less competition and less options leads to reduced innovation and price increases. We have experienced this with Fidessa over the last 12 years*." [2029]

(e) End-customer Commerzbank also expressed concern about the proposed Transaction, explaining that "[m]*ost desktops offer communication channels between users accross the industry. The past has shown, that closed communication channels like Bloomberg Chat create insurmountable barriers for competition. The Commission should consider to prevent such distortion in competition going forward.*"[2030]

(f) End-customers expressed that if they had to add a Refinitiv desktop service in order to continue accessing data from the combined entity, the cost to add additional desktops to access LSEG data might represent a significant percentage of their overall spend on desktop services. While few customers expressed that they did not expect a cost increase or only a small cost increase,[2031] others indicated that if they had to add a Refinitiv desktop services, the additional cost could be around 20%,[2032] whereas others expressed that their costs could increase all the way to 60% or even double their current costs.[2033] This suggests that the impact of foreclosure in desktop services for venue data and FTSE Russell UK equity indices reinforce one another (as the impact on customers is greater if both are foreclosed than if each is foreclosed individually), with the consequence that end-customers could see their costs to access data increase significantly.

(1620) The Notifying Party counter-argues that any impact on end-customers in the market for desktop services would not be meaningful, and that in any event the Commission's theory is speculative and does not articulate any merger-specific harm to competition.

(1621) The Notifying Party's counterarguments do not change the Commission's conclusion that the harm to end-customers is concrete and merger-specific. The harm that is described in recitals (1621)ff above is based on the Notifying Party's own calculations, as well as the results of the market investigation, which responded to

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2028 Societe Generale's response to Question 19, Questionnaire 9 to information services end-customers, Doc ID 6480.

2029 Nplus1 Singer Capital Markets' response to Question 19, Questionnaire 9 to information services end-customers, Doc ID 6480.

2030 Commerzbank's response to Question 20, Questionnaire 9 to information services end-customers, Doc ID 6480.

2031 See responses by Cowen Execution Services and Lloyds Banking Group to Question 18, Questionnaire 19 to information services end-customers, Doc ID 6469.

2032 See responses by Charles Stanley and Jefferies to question 12, Questionnaire 19 to end-customers, Doc ID 6469.

2033 See responses by Banca Monte Dei Paschi di Sienna, Bank of Montreal, and, Intelligent Financial Systems, and Quilter Business Services to question 12, Questionnaire 19 to end-customers, Doc ID 6469.

questions about potential behaviour of the combined entity post-Transaction. The increase in costs that a significant part of the market will incur in is equivalent to an increase in prices in the downstream market in the meaning of article 47 of the Non-Horizontal Merger Guidelines[2034] for those same customers. Therefore the harm is meaningful from a competitive perspective, and specific to the Transaction.

(1622) Regarding the Commission's estimation of harm to end-customers, the Notifying Party counter-argues that the Commission should consider that end-customers are likely to add only the lowest version of Eikon containing FTSE Russell UK equities index data, and that end-customers are unlikely to add Refinitiv desktops one-for-one alongside rival vendors' products. The Commission provided a response to this argument in recital (1179), and the same response is applicable regarding the index data and desktop services overlap.

(1623) The Commission notes in recital (1275) above that potential efficiencies might arise from the vertical integration of the Transaction. In order to substantiate efficiencies, *first*, the Commission asked the Notifying Party to submit evidence on their various efficiency claims[2035] in RFI 32. The reply to RFI 32 provides quantifications for revenue synergies, but it does not consistently show how potential synergies are passed on to consumers. The reply to RFI 32 also bases its projections on assumptions for which supporting evidence is missing. The Commission considers that the reply to RFI 32 does not show cumulatively consumers benefits, merger-specificity and verifiability of the submitted efficiencies and, therefore considers that the efficiencies claimed by the Notifying Party do not meet the required standard.[2036] *Second*, the Commission notes that elimination of double marginalization was not considered in the Notifying Party's reply to RFI 32 or in the Parties' internal documents that [description of content of internal documents].[2037]

4.5.5.3. Conclusion

(1624) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the combined entity would have the ability and the incentive to foreclose (partially or totally) third-party access to FTSE Russel UK equity index data. The Commission concludes that such foreclosure (be it either partial or total) would significantly impede effective competition on the market for desktop services.

2034 Article 47 of the Non-Horizontal Merger Guidelines reads: "*In general, a merger will raise competition concerns because of input foreclosure when it would lead to increased prices in the downstream market thereby impeding effective competition*".

2035 Response to the decision pursuant to Article 6(1)(c), paragraphs 31, 195, 229, 271, 356, and 423; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, pages 15 and 17; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, page 23.

2036 The Commission recalls that, according to the Non-Horizontal Meger Guidelines, "*When assessing efficiencies in the context of non-horizontal mergers, the Commission applies the principles already set out in Section VII of the Notice on Horizontal Mergers In particular, for the Commission to take account of efficiency claims in its assessment of the merger, the efficiencies have to benefit consumers, be merger-specific and be verifiable. These conditions are cumulative.*" (Non-Horizontal Merger Guidelines, paragraph 53)

2037 See for example "[internal document]" Doc ID 4991-55941; "[internal document]" Doc ID 4794-39566; and Annex 12, Annex 15, and Annex 17 of RFI 13 reply.

4.5.6. Total/partial customer foreclosure relating to UK equity indices (upstream) and desktop services (downstream)

(1625) Desktop services can serve as means for index providers to ensure wide distribution of index data.

(1626) LSEG generates and commercialises indices through FTSE Russell. Refinitiv designs and licenses desktop services, including its flagship product Eikon.

(1627) Total foreclosure of rival index providers would require the denial of access to Refinitiv's desktop services as a customer of FTSE Russell's rivals' index data. Put differently, total foreclosure would require the combined entity to no longer distribute competitors' index data through its desktop services products.

4.5.6.1. The Notifying Party's view

(1628) The Notifying Party submits that a customer foreclosure strategy is unlikely to marginalise or exclude rival index providers, given that Refinitiv is not an important customer with a significant degree of market power in a downstream market. This is not the case for desktop services, where Refinitiv has a [10-20]% market share.[2038]

4.5.6.2. The Commission's assessment

(1629) An index provider expressed concern that the combined entity could disadvantage its indices by deciding not to carry them on the Eikon platform, or could otherwise promote the usage of its own indices over its competitors'. In so doing, the customers would be steered to switch to other indices properly displayed on Eikon terminals.[2039]

(1630) The above complainant expressed that the combined entity could engage in two types of foreclosure: total, or partial technical foreclosure through the promotion of its own indices above its competitors' in UK equities indices. The Commission does not consider this to be a likely scenario, because the combined entity would lack the ability and incentive to engage in such foreclosure strategy, and even if it did not, it would be unlikely for the foreclosure strategy to have a negative impact on the market for the provision of UK equities indices.

(1631) *First*, the Commission considers that the combined entity would lack the ability to totally or partially foreclose access to an important customer downstream, thereby foreclosing competitors in UK equities indices, for the following reasons:

(a) The results of the market investigation indicated that desktop services providers carry indices based on customer demand.[2040] Moreover, end-customers expressed that access of an index through their preferred data vendor was among the least important elements that they consider when selecting indices (ranked 8 out of 11 possible parameters).[2041] This shows that demand for indices is to a large extent independent of the means for their delivery to end-customers. In this context, nothing indicates that if Refinitiv stopped licensing rival's UK equity indices, end-customers would also diminish their demand for rivals' UK equities indices. Therefore, competitors upstream would continue having sufficient economic alternatives to sell their output.

2038 Form CO, paragraph D.945.

2039 Minutes of call with index provider, paragraph 26, Doc ID 4154.

2040 Response to question 8, Questionnaire 18 to data vendors, Doc ID 6468.

2041 Response to question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.

(b) Concerning partial technical foreclosure via the promotion of its own indices above its competitors', end-customers expressed that this is not an important parameter they consider when licensing indices. Indeed, end-customers ranked "prominent placement through chosen data vendor" among the lowest parameters that they take into consideration when licensing indices (ranked 10 out of 11 possible parameters).[2042] The market investigation indicated that end-customers, who are sophisticated users of financial data, can easily access the indices they want from their desktop, even if they are not placed prominently (e.g. by making a simple search), provided the index is available via their chosen desktop services provider.

(1632) *Second,* the Commission considers that since the combined entity would lack the ability to engage in a customer foreclosure strategy, there is no need to assess whether the combined entity would have the incentive to do so. Nevertheless, the Commission considers that the combined entity would lack the incentive to pursue a customer foreclosure strategy for the following reasons:

(a) End-customers consider that wide data coverage is the most important parameter of competition for desktop services providers.[2043] By refusing to carry UK equities indices from rivals upstream, Refinitiv would be willingly making its desktop services product less competitive in the downstream market.

(b) As explained above, demand for indices is independent of the means through which they are distributed. Givent that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by Refinitiv's desktops services, it is unclear what can Refinitiv expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, Refinitiv would be foregoing the fees payable by end-customers for access to these indices through its desktop services, further lessening any incentive to engage in foreclosure.

(1633) *Third,* the Commission considers that since the combined entity would lack both the ability and incentive to engage in a customer foreclosure strategy, there is no need to assess what the impact of such a strategy would be. Nevertheless, if the combined entity engaged in a customer foreclosure strategy regarding desktop services and indices, such foreclosure would not lead to a significant impediment to effective competition in the market for UK equities indices. 62% of informative index providers expressed that if the combined entity stopped distributing their indices through their distribution channels, this would not have a significant impact, or there would retain other means to access end-customers (e.g. alternative data vendors, direct connection with end-customers via e-mail or FTP, etc.)[2044]

(1634) Concerning technical partial foreclosure, if the combined entity continued to distribute rivals' indices but displayed prominently or otherwise promoted FTSE

2042 Response to question 123, Questionnaire 9 to information services end-customers, Doc ID 6480.

2043 Question 8, Questionnaire 9 to information services end-customers, Doc ID 6480.

2044 Based on the assessment of the qualitative responses to Questionnaire 10 to index providers, question 29.3, Doc ID 6460.

Russell's indices in Refinitiv products, 62% of index providers expressed that this would not have a major impact on their business model.[2045]

(1635) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on the upstream market for UK equities index data, following a customer foreclosure strategy in the market for desktop services.

4.5.7. UK equity indices (upstream) and CNPRD; tick history; Non real-time datafeeds (downstream)

(1636) The Transaction gives rise to vertically affected markets regarding UK equity indices (upstream) and consolidated non-real time pricing and reference data, tick history, non real-time datafeeds (downstream).[2046] Upstream, LSEG is active through FTSE Russell. In the downstream markets vertically linked with UK equity indices, listed in Table 87 below, both are active.

Table 87

Vertical Links involving UK equity indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
UK equity indices (worldwide)	LSEG	[80-90]%	Consolidated non-real time pricing and reference data(worldwide)[2047]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Non real-time datafeeds (worldwide)[2048]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Tick history(worldwide)[2049]	Refinitiv	[30-40]%

Source: Form CO.

4.5.7.1. Input foreclosure

A. The Notifying Party's view

(1637) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to UK equity indices to rivals in the downstream

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2045 Based on the assessment of the qualitative responses to Questionnaire 10 to index providers, question 29.4, Doc ID 6460.

2046 For completeness, the Transaction also technically gives rise to vertical overlaps between the market for UK equity indices (upstream) and the relevant markets for trading services for equity derivatives. However, in all these downstream markets, LSEG is already present today and Refinitiv's presence is [0-5]% market share in 2019) downstream. The Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input or customer foreclosure in these markets.

2047 In a plausible EEA-wide market for consolidated non-real price and reference data, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2048 In a plausible EEA-wide market for non-real time datafeeds, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5].

2049 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

markets listed in Table 87above.[2050] *First*, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1638) *Second*, with regard to non-real time datafeeds and consolidated non-real time pricing and reference data, even if the merged entity were to refuse rival providers from carrying FTSE Russell indices, the Notifying Party argues that it is highly unlikely that rival providers such as Bloomberg, ICE, IHS Markit, FactSet or S&P Global would be marginalised or excluded. This is because with respect to users of non-real-time datafeeds (including consolidated non-real-time pricing and reference data) that use FTSE Russell indices and who cannot easily substitute to other indices, very few would be likely to drop their current providers and to switch all or the bulk of their purchases of non-real-time products to Refinitiv's product offerings. In the Parties' experience, many customers of non-real-time datafeeds (particularly larger customers) multi-source, primarily because of differences in the scope and/or quality of coverage. Because there are costs associated with switching from one provider to another for a large number of datafeeds, it is highly unlikely that a customer who accessed FTSE Russell indices from a rival non-real-time feed provider would replace that provider for all the feeds obtained from that provider.

(1639) With regard to tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and […] revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product. Further, Refinitiv's experience is that end customers frequently purchase tick history data from multiple providers, to obtain full coverage of the data histories required for their analytic purposes. Because end customers are willing to use multiple providers, a rival provider of tick history products would be able to continue to sell its products effectively to customers.

B. The Commission's assessment

(1640) *First*, the Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in tick history or MDPs by restricting access to UK equity indices. Based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2051] However, UK equity indices are not an important input for tick history as they are for CRTDs or desktop services.[2052] While CRTDs and desktop services collect and distribute many different kinds of data (e.g. venue data, index data), tick history is essentially an archive of real-time tick data (stored internally by end-customers from their CRTD, or received from the provider via a retrieval or one-shot delivery[2053]), which therefore primarily requires non-real-time venue data as a main input. The use cases for tick history are more niche than those

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2050 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001, D.1020-D.1022.

2051 Non-Horizontal Merger Guidelines, paragraph 34.

2052 The market size for tick history is much smaller at approximately [a small percentage] the size of consolidated real-time datafeeds and [a very small percentage] of desktop services.

2053 RFI 46 reply, paragraph 28.

of CRTDs or desktop services, as it is used for back testing, trading transaction cost analysis and quantitative research and analysis.[2054] As such, UK equity index data is not a direct input for tick history products, nor an important input for its particular use case.

(1641) As the Commission finds that the combined entity would have no ability to foreclose competitors in tick history, it is not necessary to assess the incentives of the combined entity to foreclose competitors in this downstream market.

(1642) *Second*, and in any event, the Commission considers that post-Transaction the combined entity would not have the incentive to foreclose its rivals in consolidated non-real time pricing and reference data and non real-time datafeeds by restricting access to UK equity indices, given its low to moderate market shares in these downstream markets. Moreover, given that UK equities indices are not an important input into the downstream markets, the combined entity could not reasonably expect to benefit from higher price levels downstream as a result of a strategy to raise rivals' costs, which removes any potential incentive to engage in foreclosure.[2055]

(1643) As regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 87. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for consolidated non-real time pricing and reference data, tick history, non real-time datafeeds as a result of input foreclosure involving UK equity indices.[2056]

(1644) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for consolidated non-real time pricing and reference data, tick history, non real-time datafeeds following an input foreclosure strategy involving UK equity indices.

4.5.7.2. Customer foreclosure

A. The Notifying Party's view

(1645) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate in equity index derivatives trading, consolidated non-real time pricing and reference data, tick history, non real-time datafeeds. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2057]

B. The Commission's assessment

(1646) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for UK equity indices from access to a sufficient customer base for the following reasons:

2054 Form CO, paragraph D.702.

2055 Non-Horizontal Merger Guidelines, paragraph 43.

2056 See, for instance, responses to question 52, Questionnaire 14 to general trading and clearing customers, Doc ID 6464, or Questions 52, 67, 82, and 101 in Questionnaire 9 to information services end-customers, Doc ID 6480.

2057 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005, D.1023-D.1024.

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. In consolidated non-real-time pricing and reference data and in non-real-time datafeeds, rivals upstream would continue having access to the remaining 84-[80-90]% of the market. For tick history, while Refinitiv has a market share of [30-40]%, the market for tick history represents a miniscule fraction of the market for UK equities indices,[2058] and thus the combined entity would not be able to deprive rival UK equities indices providers of an important source of sales. For all these markets, a number of rivals with market shares >5% will remain in each of the downstream markets post-Transaction.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large customer base would remain for UK equity indices post-merger.[2059] UK equity index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Post-Transaction, there will remain several purchasers also in markets other than the downstream markets in Table 87 above, to whom upstream rivals can sell UK equity indices.

(1647) As the Commission finds that the combined entity would not have the ability to foreclose rivals in the market for UK equity indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, as explained in footnote 2046, the combined entity would not have an incentive to stop carrying rivals' indices in its information services products in the downstream markets in Table 87above. This is because such a strategy would reduce the value of its own products without any gains in the upstream markets, since end-customers of indices choose the distribution channels through which they receive the indices they already use, and not vice versa. Moreover, as explained in recital (1331) indices are "sticky" and end-customers have high switching costs and encounter additional difficulties when attempting to change index providers.

(1648) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for UK equity indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for UK equity indices as a result of customer foreclosure in the abovementioned downstream markets.[2060]

(1649) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in UK equity indices, following a customer foreclosure strategy in the downstream markets listed in Table 87 above.

2058 The worldwide market for tick history represents [a very small percentage] of the market size for UK equities indices. See Form CO, Information Services, Annex 207.

2059 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2060 See, for instance, responses to Question 34, Questionnaire 10 to index competitors Doc ID 6460.

4.5.8. Other non-coordinated effects to the detriment of competing providers of CRTDs and desktop services

(1650) Pursuant to paragraph 78 of the Non-Horizontal Merger Guidelines, non-horizontal non-coordinated effects can arise also when the "*merged entity may, by vertically integrating, gain access to commercially sensitive information regarding the upstream or downstream activities of rivals. For instance, by becoming the supplier of a downstream competitor, a company may obtain critical information, which allows it to price less aggressively in the downstream market to the detriment of consumers. It may also put competitors at a competitive disadvantage, thereby dissuading them to enter or expand in the market*."

(1651) Within this framework, the Commission notes that LSEG, through its license terms with end-customers and with data vendors (through re-distribution licenses), currently collects certain data on users of its venue data and FTSE Russell indices, including when these data are accessed through CRTDs and desktop services offered by Refinitiv and its competitors. All the information collected in these ways is collectively defined as "Customer Information", and as shown in Figure 27 includes end-customer name (and contact details), geographic location(s), number of devices permissioned to view the data, and whether datafeeds are feeding the devices or not. As described in recitals (1675)ff Customer Information can include further details such as use cases for the data, internal systems of end-customers, start and end dates of subscriptions (with rivals), etc.[2061] The combined entity could use Customer Information collected by LSEG about customers of Refinitiv's rivals in the downstream CRTD and desktop services markets. This could be done in combination with a partial technical foreclosure strategy or in combination with a total foreclosure in one set of LSEG data (e.g. LSE venue data) but continued receipt of sensitive information through a different type of LSEG data (e.g. FTSE Russell index data).[2062] The combined entity would be able to approach in a targeted way, with insight into data needs, demand trends over time, usage and systems, customers whose trials or subscriptions are ending or who are adding new distribution channels. The combined entity would thus have a 'cost-free' marketing advantage over competitors in terms of knowledge of end-customer needs, demand trends, and renewal timing. The advertising campaigns could specifically target end-customers who have added a Refinitiv product due to a foreclosure strategy, encouraging them to switch more or all of their needs over to Refinitiv by highlighting the competitive advantage gained through the foreclosure (exclusive data). The combined entity could thus displace competitors' products at end-customers more often or more quickly. The competitors of the combined entity in the markets for CRTDs and desktop services would already have a worsened competitive position from the accompanying (partial) foreclosure strategy(ies) and as such their customers may already be more prone to switching than pre-Transaction. The combined entity could thus compete less aggressively, both in terms of pricing and in terms of innovation, to acquire them. The impact of the combined entity's access to commercially sensitive information would be to amplify the significant impediment to effective competition posed by the (relevant) foreclosure strategies described in Sections 4.5.1 to 4.5.5 above, by; replacing competitors' products at end-customers more often or

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2061 Questions 176 and 206, Questionnaire 8 to data vendors, Doc ID 6479. Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.

2062 Historical commercially sensitive information could also be used by the combined entity in a total foreclosure setting.

more quickly; gaining a 'free' advantage over competitors in the market in terms of knowledge of customer needs; and discouraging innovation by data vendor competitors, to the detriment of end-customers.

4.5.8.1. The Notifying Party's view

(1652) The Notifying Party submits that LSEG receives the following information for the purpose of administering and verifying compliance with the terms of LSEG venue data and FTSE Russell indices licences. LSEG also conducts audits at data vendors and end-customers gathering/verifying similar information.

Figure 27

LSEG input	Report / Declaration	Summary of key details required (*Customer Information*)
LSE, BIT and Turquoise venue data[1] FTSE Russell indices	Monthly data charge declarations from customers and redistributors	• End customer name • Location • Whether the end customer is a member, non-member or private investor • Number of devices capable of viewing each level of data • Whether the devices are fed by a datafeed or are standalone

Source: Response to 6(1)(c), Annex 7

(1653) Regarding ability to use Customer Information to harm data vendor competitors, the Notifying Party puts forward the following arguments.[2063]

(1654) *First*, the Notifying Party submits that this type of information does not constitute strategic information *per se*. The Notifying Party cites Paragraph 18 of the Commission Notice on the rules for access to the Commission file[2064], which defines business secrets as "*information about an undertaking's business activity* [the disclosure of which] *could result in a serious harm to the same undertaking*," and, in this context, "*customer lists*" is cited as an example of what "*may qualify as* [a] *business secret*". Hence customer lists may – but do not necessarily – qualify as business secrets. The Notifying Party also cites paragraph 86 of the Horizontal Cooperation Guidelines[2065], which defines strategic information as "*data that reduces strategic uncertainty in the market*," the sharing of which "*can give rise to restrictive effects on competition because it reduces the parties' decision-making independence by reducing their incentives to compete*". The Guidelines include customer lists as one of a series of examples of types of information that can be considered strategic, and note that "*generally, information related to prices and quantities is the most strategic, followed by information about costs and demand*".

(1655) *Second*, the Notifying Party submits that the sort of strategic information that could be relevant to commercial negotiations is not available to LSEG as part of its reporting requirements or audit function. For example, Customer Information does not cover details of the core commercial terms negotiated between an end-customer and a data vendor, such as: (i) price; (ii) the type of other (non-LSEG) data or services bought by the end-customer from the data vendor; (iii) the precise use case to which the relevant LSEG data are being put. Where such commercial information

2063 Response to the decision pursuant to Article 6(1)(c), paragraphs 447ff.

2064 See Paragraph 18 of the Commission Notice on the rules for access to the Commission file in cases pursuant to Articles 81 and 82 of the EC Treaty, Articles 53, 54 and 57 of the EEA Agreement and Council Regulation (EC) No 139/2004 (2005/C 325/07), 22.12.2005.

2065 See Paragraph 86 of the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (2011/C 11/01), 14.1.2011.

is disclosed by a client to a potential data vendor supplier, the end-customer will do so in order to drive enhanced competition.

(1656) The Notifying Party adds in the response to the SO that there is nothing inherently anticompetitive in winning customers from rivals given that the Customer Information received is routinely disclosed to potential suppliers by customers as part of the ordinary sales and marketing and procurement processes.[2066]

(1657) *Third*, the Notifying Party submits that the mere fact of a customer's subscription being near its contract expiry date does not convey a material competitive advantage. Customer Information is routinely disclosed to potential suppliers by customers as part of ordinary sales and marketing and procurement processes. Data vendors seek to differentiate themselves primarily based on reliability, ease of use and quality of support service. Customers will consider and select a vendor according to their particular preferences. The identity of a given customer, or even the fact that they are nearing the expiry of their subscription with their existing provider, affords Refinitiv no insight on key commercial terms offered by rivals.

(1658) *Fourth*, the Notifying Party submits that Customer Information only gives partial insight into customers' demand for data vendors, given that LSEG only receives it for customers receiving LSEG data, and not for the other customers of rival data vendors.

(1659) *Fifth*, the Notifying Party submits that Refinitiv would not in any event have information on key commercial terms between rival data vendors and end-customers so there is no basis for thinking that Refinitiv would be able to compete less aggressively for business (whether in terms of price or innovation).

(1660) Regarding incentive to use Customer Information to harm data vendor competitors, the Notifying Party puts forward the following arguments.[2067]

(1661) *First*, the Notifying Party submits that as a financial market infrastructure (FMI) and information services provider at the heart of the financial markets ecosystem, LSEG today has strong relationships with customers in one business unit who are competitors of another business unit with the LSEG Group. For example, LSEG provides security identifiers to FTSE Russell's rivals, and clearing services to trading venue rivals. In order to accommodate those client relationships, LSEG takes stringent measures to ensure that information is appropriately ringfenced within respective business units. Moreover, these measures are implemented […].

(1662) Also, monthly reporting information relevant to licensing of [LSEG information services products] is submitted through the […] and administered by a dedicated team within LSEG's Information Services Division. [description of LSEG policy relating to managing customer information].

(1663) As well as the above examples, as part of LSEG's confidentiality policy, confidential information is defined to include, among other things [definition of confidential information]. The confidentiality policy sets out rules and guidance relating to the use, storage and sharing of confidential information, and requires that […].

(1664) [description of LSEG commercial policy relating to customers and managing information].

2066 Response to the SO, paragraph 288.

2067 Response to the decision pursuant to Article 6(1)(c), paragraphs 458ff.

(1665) Similarly, the Notifying Party submits that Refinitiv is already vertically integrated, and already has robust systems in place to ensure that sensitive information is appropriately handled. By way of example, Refinitiv has index licensing operations itself but also has strong distribution relationships with other index providers. Information regarding third-party index providers is not shared with Refinitiv's Proprietary (and Custom) Indices Operations (PIO) team, which is responsible for the calculation of Refinitiv's proprietary and custom indices. More generally, Refinitiv has detailed protocols and a strong compliance policy in place to ensure that this approach is consistently communicated and rigorously enforced.

(1666) *Second*, the Notifying Party submits that it is important to LSEG that its venue data and indices products are distributed widely. Data vendors are important commercial partners of LSEG and are highly sophisticated players. Data vendors would not allow the combined entity to access information that they consider to be commercially sensitive without being satisfied that sufficient protections are in place.

(1667) *Third*, the Notifying Party submits that LSEG operates in an environment of close regulatory scrutiny. An allegation of "abusive sales tactics" and / or inappropriate information gathering would attract regulatory attention and critically would risk jeopardising individual customer relationships as well as LSEG's wider reputation as a trusted FMI provider and customer partner.

(1668) Regarding the impact on competition, the Notifying Party argues that there is no explanation of the mechanism by which the insights afforded to the combined entity enable it to place rivals at a disadvantage. Moreover, approaching competitors' customers in itself would not harm competitors since the type of information that could be shared within the combined entity is routinely disclosed by customers to actual and potential suppliers in order to drive increased competition.[2068]

4.5.8.2. The Commission's Assessment

(1669) Applying by analogy paragraph 32 of the Non-Horizontal Merger Guidelines, the Commission examines whether Refinitiv would have the ability and incentives to use Customer Information to harm competing desktop service or CRTD providers, and what impact such a strategy would have on effective competition.

A. Ability to use Customer Information to harm competitors

(1670) The Commission considers that the combined entity would have the ability to use Customer Information to harm competitors in the downstream markets of CRTDs and desktop services for the following reasons.

(1671) *First*, the Commission finds that Customer Information, as listed in recital (1653) is commercially sensitive in nature. While the Non-Horizontal Merger Guidelines do not provide a definition of 'commercially sensitive information', customer lists are given as an example of "*information that may qualify as business secrets*" in Commission guidance.[2069] The Notifying Party highlights that the Guidelines use 'may' and thus do not conclusively define customer lists as qualifying business secrets. However, the Commission considers that their inclusion is sufficiently indicative; if customer lists were only relevant in conjunction with detailed pricing information, they would not have been included as a separate element in the list of

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2068 Response to the decision pursuant to Article 6(1)(c), paragraphs 469ff.

2069 See paragraph 18 of the Commission Notice on the rules for access to the Commission file in cases pursuant to Articles 81 and 82 of the EC Treaty, Articles 53, 54 and 57 of the EEA Agreement and Council Regulation (EC) No 139/2004, C 325 22.12.2005.

examples.[2070] Similarly, customer lists are included in examples of 'strategic information' in the Horizontal Cooperation Guidelines, separately from prices and quantities.[2071] Moreover, the Commission considers that the number of devices permissioned at each end-customer to receive the combined entity's data constitutes information on "quantities", which is included in the abovementioned lists of examples of information that may qualify as business secrets, or strategic information. Paragraph 86 of the Horizontal Cooperation Guidelines add, "*The strategic usefulness of data also depends on its aggregation and age, as well as the market context and frequency of the exchange*." In this context, the Commission notes that the monthly frequency of information received by the combined entity increases the strategic usefulness of the data, as it allows to track the demand trends of the individual customers and in aggregate, of the data vendors.

(1672) *Second*, while the Commission agrees with the Notifying Party that end-customers may voluntarily share some potentially commercially sensitive information to their potential suppliers, it notes that in the normal course of business they are free to choose the disclosure strategy that enhances competition and thus benefits them. The fact that the combined entity will have this information deprives the end-customers from being able to choose the most competition enhancing strategy, and thus gives the combined entity the ability to compete less aggressively with its rivals.

(1673) *Third*, the information currently available to LSEG appears to be wider than the scope required by existing licensing terms of LSE venue data and FTSE Russell indices, reported by the Notifying Party in recital (1654). For instance, data vendors indicated that venue data providers typically gather further information; Infront Italia cited "*new subscriptions*", IRESS mentioned, "*subscription start / end date*" and MARKIT noted "*cost of service to end user*".[2072] Similarly, for index providers, Infront Italia, MARKIT and S&P mentioned information about "*usage*"; S&P elaborated "*Usage (distribution platforms: desktop/datafeed/mobile applications, use case: internal use/derived data creation/redistribution)*[…]".[2073] With respect to CRTDs, it appears that LSEG also becomes aware every time an end-customer is requesting to access new content from its CRTD provider, because the end-customer needs to get prior approval from LSEG.[2074]

(1674) Several end-customers have also highlighted that LSEG obtains information on their internal IT systems, such as infrastructure, applications and processes. Sydbank explains "[…]*Exchanges more and more require system- and business descriptions before presenting and entering license agreements, as they want "to help us" getting the right licenses*".[2075] Universal Investment Gesellschaft also notes, "*They would like to know how our internal processes work*".[2076] Banco BPM highlights that "*They can also say the details of our applications and the relative usage into our internal process because is a mandatory information to subscribe the contracts*."[2077] E*trade

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2070 There may well be situations in which customer lists do not constitute business secrets, for example when they are made public by the company concerned. This is clearly not the case for the customers lists discussed in this section.

2071 See Paragraph 86 of the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements (2011/C 11/01), 14.1.2011.

2072 Question 176, Questionnaire 8 to data vendors, Doc ID 6479.

2073 Question 206, Questionnaire 8 to data vendors, Doc ID 6479.

2074 See FactSet's reply to Question 71, Questionnaire 18 to data vendors, Doc ID 6468.

2075 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.

2076 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.

2077 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.

Financial Corporation note that the Parties have access to "*Systems diagrams and other infrastructure information*".[2078]

(1675) Furthermore, audits provide LSEG and Refinitiv with additional information on their end-customers. During these audits, end-customers have to submit information on the usage of the venue data and whether this takes place through desktop services or datafeeds.[2079] Société Générale explains, "*LSEG and Refinitiv impose market data audit where they request lots of information (via detailed questionnaire) about all internal applications using their market data (business purpose of the application, number of users, location where implemented, detailed application cartography,…)*".[2080] Daiwa confirms, with "*Both organisations have audited us in the past and identified as a result, how we use their data, what volumes of data we use and in which applications*".[2081] Lastly, the fact that certain information can be requested in LSEG's audits is consistent with the licence obligations.

(1676) The Notifying Party states in the response to the SO that the claim that information currently available to LSEG appears to be wider than the scope required by existing licensing terms is based on disparate remarks made by respondents to the Commission's market investigation which do not in isolation or in aggregate substantiate this finding.[2082] In particular, the Notifying Party submits that the market investigation did not solicit feedback from data vendors on this point with specific reference to LSEG/FTSE Russell but with reference to "venue data providers" and "index providers" in general. The Commission, however, considers that given the context of the questionnaires and the sophistication of the end-customers, their responses can be taken as relevant to the Parties. The Notifying Party adds that the Commission does not elaborate what LSEG does with information on internal IT systems, but the Commission considers this elaboration irrelevant since the competitive harm would arise from what the combined entity could do post-Transaction, not from what the Parties currently do with the information.

(1677) *Fourth*, existing safeguards to avoid misuse of sensitive information such as contractual confidentiality clauses do not seem sufficiently strong. Informative data vendors do confirm that there are clauses in their current separate agreements with LSEG and Refinitiv requiring that information that they consider to be business secrets to be kept confidential by each collecting party.[2083] In particular, as highlighted by the Notifying Party in the response to the SO, Dow Jones states: "*Our agreement contains confidentiality provisions to prohibit use or sharing for any purpose other than the intended purpose*." S&P Global states: "*Through contract and non-disclosure of confidential information agreements*." Markit states: "*We ensure we have appropriate legal protections in our contracts (including confidentiality and audit provisions)*". Institutional Shareholder Services states: "*Confidentiality language in the contracts*".[2084]

(1678) The Notifying Party also points out that it undertook detailed discussions with […] to ensure that it was satisfied with internal information protection protocols.[2085]

2078 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.
2079 Question 115, Questionnaire 9 to information services end-customers, Doc ID 6480.
2080 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.
2081 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.
2082 Response to the SO, paragraph 279.
2083 Question 79.1, Questionnaire 18 to data vendors, Doc ID 6468.
2084 Question 79.1, Questionnaire 18 to data vendors, Doc ID 6468.
2085 Response to the decision pursuant to Article 6(1)(c), paragraph 461.

However, data vendor FactSet noted that in case of breach, there is "*very little that FactSet can do [...] as it is difficult to prove and based on anecdotal evidence. Further, in particular with critical data sets, FactSet has to be sensitive to maintaining its relationship with the vendor for the necessary data. There is also fear of retaliation.*"[2086] Moreover, it is not clear that the same confidentiality clauses would protect against intra-group information sharing at the combined entity. Indeed, in previous decisions, the Commission concluded that NDAs are not sufficient to prevent exchange of commercially sensitive data when they allow exchanges within the group, and they are difficult to monitor.[2087]

(1679) *Fifth*, the Commission does not agree with the Notifying Party's argument that rival data vendors "*would not allow the combined entity to access information that they consider to be commercially sensitive without being satisfied that sufficient protections are in place*." Considering the abovementioned shortcomings of the existing safeguards, and the fact that the Commission considers LSE venue data and FTSE Russell indices to be important enough inputs (see recitals (1304) to (1331) and (1470) to (1493)) to allow for potential foreclosure, it is unlikely that rival data vendors would be in a position to "*not allow the combined entity to access information*".

(1680) In the response to the SO, the Notifying Party submits that basing this conclusion on a single submission of FactSet, a data vendor rival with a vested interest in the outcome of the investigation, and the previous decisional practice of the Commission is insufficient.[2088] The Notifying Party considers its existing safeguards to reflect the importance that both it and its counterparties place on the appropriate protection of confidential information. The Notifying Party adds that data vendors have sufficient protection mechanisms in place and are well-placed (and prepared) to retaliate in the event of a breach of confidentiality obligations. In response to the question "*How would you react if the combined entity began sharing your confidential data for purposes other than those provided for the collection of this data?*" the Notifying Party argues that the only response suggesting that there would be limited retaliation strategies available to them is that of FactSet. MSCI states: "*MSCI would stop providing that information to LSEG and would seek redress.*" Dow Jones states: "*We would seek the advice of our legal counsel*." Institutional Shareholder Services states: "*We would object to the use of our information for any purposes not specifically contemplated by the parties or otherwise mutually agreed*". Markit states: "*We would react unfavourably as we rely on contractual protections to ensure our confidential data is only used for the purposes set out in our contracts. If a contract has been breached by virtue of unauthorised disclosure of confidential information, we would look to enforce all of our rights under such contract*." The Commission highlights that while only one data vendor provided a detailed submission on its concerns regarding Customer Information, several data vendors did indicate that the Parties receive information from them that they consider to be business secrets[2089]. Moreover, the Commission does not consider the abovementioned quotes to describe concrete retaliation strategies, but high-level general statements referring to the possibility of legal redress. As stated above, it is not clear that the same confidentiality clauses would protect against intra-group information sharing at the

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2086 Question 79, Questionnaire 18 to data vendors, Doc ID 6468.

2087 Commission decision of 20 July 2016 in Case M.7724, *ASL/ArianeSpace*, paragraphs 205-206, 223.

2088 Response to the SO, paragraph 280.

2089 Question 79, Questionnaire 18 to data vendors, Doc ID 6468.

combined entity, and moreover it would be difficult for third parties to detect and prove such intra-group sharing of information.

(1681) *Last*, the scope of information collected by the combined entity could be increased in the future, as has been done in the past. For instance as of January 1, 2020, LSEG requires all vendors to report on the distribution of delayed venue data, whereas before this was limited to real-time venue data. Similarly, FactSet noted that in its updated (2021) SEDOL policy, LSEG is pursuing an expansive interpretation of reporting requirements concerning FactSet's end-customers. In particular, "*LSEG has made it clear to FactSet that it believes that any client who subscribes to the FactSet Performance Analytics solution is "using" SEDOLs for purposes of the analytics regardless of any SEDOL suppression*"[2090], and thus related reporting obligations of FactSet would potentially cover all of those clients. As above, in the context where the Commission finds ability to foreclose, it is unlikely that data vendors would be able to effectively resist such increases to the scope of information collected from them. Post transaction, the combined entity could increase the scope of commercially sensitive information it collects with the added purpose of causing harm to data vendor competitors.

(1682) Considering the above, the Commission concludes that the combined entity would have the ability to use Customer Information it currently receives, or with an extended scope in the future, to harm competitors.

B. Incentive to use Customer Information to harm competitors

(1683) The Commission considers that the combined entity would have the incentive to use Customer Information to harm competitors in the downstream markets of CRTDs and desktop services[2091] for the following reasons.

(1684) *First*, the combined entity's incentive to use Customer Information to harm competitors stems from and enhances its incentive to implement (partial) foreclosure strategies described in Sections 4.5.1 to 4.5.5. The profitability of the underlying foreclosure strategies would be enhanced by the additional sales in the downstream markets that are achieved with the help of Customer Information, and at no additional cost through losses upstream. In particular, the additional sales could come from targeting end-customers who have added a Refinitiv product due to a foreclosure strategy, encouraging them to switch more or all of their needs over to Refinitiv by highlighting the competitive advantage gained through the foreclosure (exclusive data). The combined entity could thus displace rivals' products at end-customers more often or more quickly.

(1685) Therefore, even if the Parties' internal systems and policies currently target ringfencing between divisions, as argued by the Notifying Party, they are subject to change through internal decision-making processes. The incentive to do so is higher post-Transaction, as described in the assessment of the related foreclosure strategies. Moreover, the Parties have not confirmed that complete and effective "Chinese walls" are in place. In fact, the combined entity intends to "[description of internal

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2090 FactSet submission of 14/07/2020, Doc ID 4196, page 4.

2091 The Commission notes that LSEG does not have a comparable incentive pre-transaction since LSEG's "Mergent" desktop service is a niche product (focusing particularly on US companies fundamentals, North American equities, and US corporate and municipal bond reference data) which is not comparable to Refinitiv's wide-ranging products and second-place position in the desktop services market in terms of revenues (first-place by number of users).

strategy]" in its account management, which could potentially lead to Customer Information transfer between the two activities.[2092]

(1686) *Second*, past conduct of Borsa Italiana indicates that the incentive to obtain and use Customer Information is present in the context of input foreclosure of venue data. In the 2015 investigation before the Italian Competition Authority AGCM, described in more detail in recitals (1040) to (1045), data vendor e-Class complained that Borsa Italiana "*implemented unreasonable and unnecessary contract terms and issued such data requests vis-a-vis data vendors to pass this information to its own data vendor*" and "*exercised pressure through data audits carried out at the data vendors' clients*".[2093] At the time, Borsa Italiana was active upstream in the market for supplying venue data generated through its trading venues and also downstream, in the markets for CRTDs and desktop services, through its subsidiary BIMS.

(1687) Borsa Italiana proposed a set of structural and behavioural commitments to the AGCM including the divestiture of Market Connect, the business branch of BIMS that was active in the downstream market for desktop services and CRTDs. Following its divestiture, Market Connect was acquired by Spafid, who then sold it further to Infront, which renamed the business Infront Italia. In the market investigation, when asked how they ensure that their information is kept confidential by the collecting party, Infront Italia confirmed, "*when we were a division of Borsa Italiana until February* […] *we faced exactly the same issue* [prevent potential usage of confidential information] *and the Italian Antitrust asked Borsa Italiana to sell our division in order to remedy to this situation*."[2094]

(1688) The Notifying Party argues in the response to the SO that the subject matter of the E-Class/Borsa Italiana case does not indicate an incentive to use CSI to implement a foreclosure strategy. It adds that Borsa Italiana made a proactive offer of commitments and the AGCM closed the proceedings without ascertaining an infringement.[2095] However, the purpose of the Commission in the context of this decision is not to investigate or show whether an infringement occurred in the mentioned case; rather, the Commission considers the abovementioned case to indicate that the incentive to obtain and use Customer Information is present in the context of input foreclosure of venue data.

(1689) *Third*, it appears that growth of sales in the downstream markets, and desktop services in particular, comes predominantly from winning customers from rivals, rather than a growing customer base. In an April 2019 presentation on the potential transaction, Oliver Wyman summarizes "[description of commercial opportunity]."[2096] The market trend is summarized in the following figure from Refinitiv [internal division], which shows differentiation of growth between customer segments and in particular highlights that [customer trends].

Figure 28

[internal document]

Source: [internal document]", attachment to email dated 3rd January 2020, Doc ID 4794-11586

2092 [internal document], p.9 Doc ID 4695-57440
2093 RFI 29 reply, paragraph 9.
2094 Question 57, Questionnaire 19 to information services end-customers, Doc ID 6469.
2095 Response to the SO, paragraph 287.
2096 [internal document], p.7 Doc ID 4175.

(1690) This is further confirmed in an internal Refinitiv presentation to the [internal division] dated [month and year]: "[discussion of desktop services financial targets]"[2097]

(1691) Indeed, as shown in the [presentation] in Figure 29, the [commercial policy] of Refinitiv, [description of competitive strategy]. For instance, the agreement with [customer], included a [competitive strategy target and timeline].[2098] [customer], an earlier sign-on, [internal discussion of customer behaviour].[2099]

Figure 29

[internal presentation]

Source: [internal presentation], p.8 Doc ID 4794-37644

(1692) *Last*, the combined entity already forecasts [description of potential transaction synergies].[2100] In particular, it intends to [description of potential transaction synergies and associated revenue gains].[2101] [description of potential transaction synergies and associated revenue gains][2102]. In the latter case, the combined entity would have the incentive to use information on the end-customers' data vendor product needs, usage, systems, etc. gained through its index provision activities to approach end-customers with targeted enterprise offers aiming at displacement of various products from rivals.

(1693) Considering the above, the Commission concludes that the combined entity would have the incentive to use Customer information to harm competitors.

C. Impact on effective competition

(1694) As regards the mechanism for negative impact on effective competition, the Customer Information would allow the combined entity to displace the revenues of competing data vendors and increase its win rates (i.e. rivals' switching rates) over time. This would be particularly successful in the cases where the combined entity got a 'foot in the door' through the foreclosure strategy. In the case of a partial foreclosure strategy, the combined entity would continue to receive relevant Customer Information. In the case of total foreclosure in one of the upstream markets, the combined entity would still have access to Customer Information from the other. Even in the case of total foreclosure in both upstream markets, the combined entity would still have historical Customer Information on both customer bases.

(1695) As rival data vendor Factset summarizes, "*The detail in this report effectively provides the combined entity with a sales lead generation list for desktop and datafeed products. The information provides insight on client names, indications of client workflows and client needs, as well as trends over time reflecting growth and size of the potential sales target. The combined entity will also be alerted to free trials or whenever someone is requesting premium data.* […] *the combined entity can leverage this information to coerce clients to their products through targeted pricing and abusive bundling practices.*"

2097 [internal document], p.2 Doc ID 4991-70513.
2098 [internal document], p.1 Doc ID 4151-38196
2099 Email of 13th April 2019, Doc ID 4151-24578.
2100 P.3, Doc ID 4991-38289
2101 P.1, Doc ID 4188-85546
2102 [internal document], p.27 Doc ID 4695-57440

(1696) In *Apple/Shazam*[2103], the Commission concluded that customer information is commercially sensitive because it "*could be used* [...] *to improve* [...] *customer acquisition, performing more targeted advertising or marketing campaigns aimed at customers of rival[s]*". In this case, the Commission considers that the combined entity would have the ability to obtain and use such commercially sensitive information to further harm competitors targeted in the foreclosure strategies described in Sections 4.5.1 to 4.5.5.

(1697) In particular, the combined entity would be able to approach in a targeted way, with insight into data needs, demand trends over time, usage and systems, customers whose trials or subscriptions are ending or who are adding new distribution channels. The combined entity would thus have a 'cost-free' marketing advantage over competitors in terms of knowledge of end-customer needs, demand trends, and renewal timing. The advertising campaigns could specifically target end-customers who have added a Refinitiv product due to a foreclosure strategy, encouraging them to switch more or all of their needs over to Refinitiv by highlighting the competitive advantage gained through the foreclosure (exclusive data). The combined entity could thus displace rivals' products at end-customers more often or more quickly. The rivals of the combined entity in the markets for CRTDs and desktop services would already have a worsened competitive position from the accompanying (partial) foreclosure strategy(ies) and as such their customers may already be more prone to switching than pre-Transaction. The combined entity could thus compete less aggressively, both in terms of pricing and in terms of innovation, to acquire them.

4.5.8.3. Conclusion

(1698) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the combined entity's access to Customer Information collected by LSEG about Refinitiv's competitors' customers on the markets for CRTDs and desktop services would further aggravate the significant impediments to effective competition identified in Sections 4.5.1 to 4.5.5.

4.5.9. FX benchmarks (upstream) and index licensing (downstream)

(1699) FX rate benchmarks ("FX benchmarks") providers supply reference exchange rates of various currency pairs to index providers for the design and calculation of indices.

(1700) Refinitiv designs and supplies FX benchmarks under the brand WM/R. Its flagship product is the WM/Reuters London 4 pm Closing Spot Rates, which covers over 150 currency pairs and is fixed daily based on a window of FX spot trading data from several trading venues around 4 pm London time. The "4 pm fix" is used by market participants both on the buy-side and the sell-side. For the former, Lloyds Banking Group explains, "*For asset managers the WM 4pm benchmark is still dominant and may be used by, say, 90% of clients executing at this time*."[2104]

(1701) LSEG generates and commercialises indices through FTSE Russell.

2103 Commission decision of 6 September 2018 in Case M.8788, *Apple/Shazam*, paragraph 215.

2104 Question 40, Questionnaire 19 to information services end-customers, Doc ID 6469.

4.5.9.1. Input foreclosure

(1702) Total input foreclosure of rival providers in index licensing would require the denial of access to Refinitiv's FX benchmarks to competing index providers, thus making FTSE Russell the sole index provider with access to Refinitiv's FX benchmarks.

A. The Notifying Party's view

(1703) Regarding ability to engage in total input foreclosure in index licensing by restricting access to WM/R FX benchmarks, the Notifying Party puts forward the following arguments.

(1704) *First*, there are at least two competing providers with FX benchmark products that would be suitable alternatives for index providers: (i) Bloomberg; and (ii) New Change. Bloomberg BFIX and New Change FX benchmarks both offer FX benchmark rates produced at different times through the day (including at 4pm), in a range of currencies. Consequently, both are viable alternatives for customers of Refinitiv's FX benchmark rates, that could serve the same function including use in the design and calculation of indices. The Notifying Party notes further that both rivals are especially well placed to win the business of index providers that are launching new indices, in place of Refinitiv's WM/R benchmark.

(1705) In the response to the SO, the Notifying Party highlights recent examples [competitive analysis of Refinitiv], showing that end-customers consider BFIX to be a viable competitor in practice. The Notifying Party adds that based on the responses made available to the Parties, half of informative end-customer respondents confirmed that BFIX is a close competitor to WM/R.[2105]

(1706) *Second*, the combined entity will have no ability to foreclose a significant portion of the downstream index licensing market as there is no evidence that end-customers would switch index providers as a result of the foreclosure strategy.

(1707) *Third*, restricting the accessibility of the WM/R would only serve to make other FX benchmarks a more preferred alternative and encourage the market to move away from the WM/R.

(1708) Regarding incentives to engage in total input foreclosure in index licensing by restricting access to WM/R FX benchmarks, the Notifying Party puts forward the following arguments.

(1709) *First*, Refinitiv considers wide distribution to be a driver of the credibility (and thus choice) of the WM/R among its direct customers and end customers. This is why, irrespective of Refinitiv's existing downstream activities, the latter licenses the WM/R benchmark to all third parties on the same FRAND basis, including to competing data vendors / index providers such as Bloomberg, FactSet and SIX Financial. In the response to the SO, the Notifying Party adds that Refinitiv does not charge third party vendors for redistributing WM/R, highlighting the commercial benefits of wide distribution of WM/R over and above any possible gains from redistribution fees.

(1710) *Second*, since Refinitiv's authorisation as a benchmark administrator was granted in light of its commitment to the FCA that it would operate and administer the WM/R 4pm benchmark in accordance with FRAND principles, ceasing to meet this obligation could lead to the FCA withdrawing or suspending its authorisation. As

[2105] Response to the SO, paragraphs 301ff.

such, Refinitiv expects this commitment to remain applicable to the combined entity post-Transaction. Several options are available under the EU BMR which will allow Refinitiv to make WM/R 4pm available to supervised users in the EU following the end of the Brexit transitional period. While Refinitiv is yet to decide which of the above options it will implement, […]. The Notifying Party adds that precise scope of Article 22 of the EU BMR (in that it does not define "user" or expressly cover the use of critical benchmarks for index design/calculation) has no material bearing on the combined entity incentives, as Refinitiv's board adopted a global policy which applies to all customers, regardless of customer location and use case. A reversal of this policy with the aim of targeting specific index rivals would be immediately visible to customers and cause irreversible damage to the credibility and reputation of the WM/R.

(1711) In the response to the SO, the Notifying Party adds that the strategy would be highly visible from the outset and as such, that regulators and market players would be well forewarned and able to pre-empt such a strategy.

(1712) *Third*, FTSE Russell faces strong competition in the market for index licensing and there would be no material upside to an input foreclosure strategy.

(1713) *Fourth*, LSEG operates today and will continue to operate post-Transaction under a high degree of regulatory scrutiny. The Notifying Party cites FCA's letter to all benchmark administrators on 24 January 2020, which reads, "*This could lead to competition concerns if those firms restrict access to data inputs or charge more for them to other benchmark administrators who compete with them*".[2106] In such a climate the combined entity would not risk the pursuit of such a strategy, which would be noticed by (and possibly lead to sanctions from) regulators.

(1714) *Fifth*, any strategy aimed at inhibiting end customers' ability to work with their chosen indices would be met with immediate customer backlash. The financial ecosystem is such that most of the players share the same large, highly sophisticated clients, and a possible backlash by those customers could significantly impact the wide information services offering of the combined entity, presumably leading to losses in other markets.

(1715) Regarding the impact on the market for index licensing of a total input foreclosure strategy involving WM/R FX benchmarks, the Notifying Party puts forward the following arguments.

(1716) *First*, harm to rivals does not amount to harm to competition. Even if the combined entity hypothetically refused to supply the WM/R benchmark for use by rival index providers, it is highly unlikely that rival index providers will be foreclosed. This is because index providers could choose to use alternative benchmarks in their indices, and there is no evidence to suggest that end-customers would switch to the combined entity's indices as a result.

(1717) *Second*, given that absent the Transaction no entry in index licensing is anticipated in the next three years in the EEA, the prospects of entry cannot be negatively impacted by a total foreclosure strategy. Moreover, the market for index licensing is characterised by relatively low barriers to entry due to the wide availability of input data, the possibility to partner with existing index providers or enter as a white-label

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2106 See FCA, Benchmark Administrator Supervisory Strategy Letter of 24 January 2020, Section 2, available at https://www.fca.org.uk/publication/correspondence/portfolio-letter-benchmarks.pdf (last accessed on 11 June 2020).

index provider or provider of custom indices. There are also opportunities to capture growing / new segments of the market, such as Environmental, Social, and Corporate Governance ("ESG") indices.

B. The Commission's assessment

(1718) The Commission considers that the combined entity would have the ability to engage in total input foreclosure with respect to FX benchmarks upstream and index licensing downstream.

(1719) *First*, the market investigation confirms that FX benchmarks are among the most important inputs for UK and European equity index design and calculation.[2107] Further, within the universe of approximately [...] worldwide, Refinitiv estimates that [a very high percentage] of these, i.e. [...] indices, use an FX benchmark. Refinitiv estimates that approximately […] out of [...] indices worldwide are from EEA index producers and approximately [a very high percentage] of those ([...]) use FX benchmarks. Therefore, FX benchmarks are an important input for the majority of index licensing downstream, in either geographic scope.

(1720) *Second*, WM/R benchmarks have a high market share and are recognized as the market standard in FX benchmarks.[2108] The Notifying Party estimates WM/R benchmarks' global and EEA-wide market share as [70-80]% in 2019 (based on the number of clients), with the competitors presented as viable alternatives having [20-30]% (BFIX of Bloomberg) and [0-5]% (New Change FX benchmarks)[2109]. While these benchmarks may be alternatives from a 'functional perspective', the Commission finds that in practice they do not have the widespread acceptance of WM/R in the market and thus could not serve as viable replacements for index providers. In the response to the SO, the Notifying Party highlights recent examples of customers switching away from WM/R to BFIX or selecting BFIX in place of WM/R, showing that end-customers consider BFIX to be a viable competitor in practice. The Notifying Party adds that based on the responses made available to the Parties, half of informative end-customer respondents confirmed that BFIX is a close competitor to WM/R.[2110] However, the Commission does not consider the isolated cases of end-customers switching to BFIX or describing BFIX as a close competitor in the FX benchmark space overall to indicate that BFIX is currently a viable alternative for index licensing purposes.

(1721) Indeed, in a draft internal strategy document dating from January 2019, LSEG noted, "[competitive analysis of LSEG]."[2111] The Notifying Party argues in the response to the SO that this was an early draft version of LSEG's "[internal document]" slide deck dated 21 January 2019, and that the quoted extract was not included in the final version of the slide deck dated 19 February 2019.[2112] The Notifying Party highlights that the final version stated, "[competitive analysis of LSEG]", which according to the Notifying Party reflects the fact that there are other FX benchmarks with lower market shares that compete with WM/R. The Commission takes note of the fact that the slide deck did not retain the original slide but highlights that in the final version,

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2107 Questions 5 -8, Questionnaire 20 to index providers, Doc ID 6471.

2108 Form CO, para. D.450; see also IMF, Review of the Fund's Policy on Multiple Currency Practices: Initial Considerations, June 2019, p. 9

2109 RFI 29 reply, question 1.

2110 Response to the SO, paragraphs 301ff.

2111 See [internal document], Doc ID 4850-24736, page 64.

2112 Response to the SO, paragraph 303.

in addition to the extract quoted by the Notifying Party, the wording "[competitive analysis of LSEG]"[2113] was used.

(1722) The Commission finds that WM/R's particular prominence is confirmed by Banco Santander in its comment in the market investigation, *"These [WM/R] Benchmarks are the most used within the industry and a vast majority of OTC deals are valued with them.*"[2114] In internal correspondence dating from October 2019, [senior employees] stated, [competitive analysis from Refinitiv internal documents].[2115] Further, the FCA letter of 24 January 2020 cited by the Notifying Party mentions, "*competition may not be working well in the provision of benchmarks. Users reported high costs of switching benchmarks as well as a lack of suitable alternatives as drivers of market power (although this will be more significant for some benchmarks than others)*."[2116]

(1723) With respect to WM/R benchmarks' particular importance for index licensing, the following explanation by RIMES is noteworthy. "*FX Benchmarks are meant to be representations of where FX rates are trading at a very precise time [e.g: fix at 15:00 or 16:00 GMT]. The different index providers have different methodologies that investors have to be comfortable with, once an FX benchmark (or any benchmark) has been widely adopted by the investor community it is extremely difficult to displace it. Once pension funds in particular decide to use a certain benchmark, Asset Managers have no choice but to follow their clients' decision. WM/R FX indexes have been around for more than 25 years and are universally accepted and recommended by pension fund consultants and pension funds.*"[2117]

(1724) The fact that WM/R is used in a large majority of indices is thus not only significant for index providers, but also for asset managers and other investors who are the customers of those index providers, as they have to use the same FX benchmark as the indices they are tracking. The widespread use of WM/R in the FX market by investors and the choice of WM/R by index providers are phenomena that are closely linked and that form a feedback loop with each other. This is further demonstrated by Refinitiv's internal correspondence where the [competitive analysis of Refinitiv] are discussed: "[analysis of competitors and customer usage]."[2118]

(1725) The Notifying Party argues in its response to the SO that the Commission selectively cites from Refinitiv's internal correspondence that discusses the relative merits of each of WM/R and BFIX.[2119] By referring only to the sections of correspondence discussing the [competitive analysis], the Notifying Party argues that the Commission ignores equivalent discussion of the relative merits of BFIX, as well as the competitive pressure faced from New Change FX. By way of example, in the same email chain, Refinitiv acknowledges that a key advantage of [competitor] is that it is [discussion of advantages of competitor]. Similarly, the Notifying Party notes other internal email chains which in its view make clear that Refinitiv [competitive analysis] ("[internal documents discussing competitive analysis]").

2113 Doc ID 4189-10863, page 65.

2114 Question 40.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

2115 Doc ID 4151-24953.

2116 See FCA, Benchmark Administrator Supervisory Strategy Letter of 24 January 2020, Section 2, available at https://www fca.org.uk/publication/correspondence/portfolio-letter-benchmarks.pdf (last accessed on 11 June 2020).

2117 Question 40.3, Questionnaire 19 to information services end-customers, Doc ID 6469.

2118 Doc ID 4151-37696.

2119 Response to the SO, paragraph 303.

(1726) While the Commission takes note of the internal discussions at Refinitiv about a possible competitive threat from BFIX and New Change FX, it observes that they do not refute the factual statement highlighted above in recital (1726) that WM/R is [description of usage] and refer more to a general competitive pressure than displacement in the feedback loop described above..

(1727) The following statement in internal correspondence of the Refinitiv benchmarks team sums up this feedback loop as follows: [competitive dynamics].[2120] The Notifying Party argues in the response to the SO that these citations neglect to refer to important parts of the discussion that in fact illustrate the inability of Refinitiv to effect any price increase for index providers without suffering erosion of its market share. Taking the relevant citation in full: [competitive dynamics]. The Notifying Party argues that the discussion confirms that hurdles to switching are not high, meaning that Refinitiv needs to remain vigilant: [competitive dynamics]. According to the Notifying Party these emails evidence that Refinitiv is aware of and constrained by the prospect of customers (including index customers) switching to rival FX benchmarks.

(1728) The Commission takes note of the quotes cited by the Notifying Party, but maintains that the feedback loop is acknowledged by Refinitiv throughout the discussion. Moreover, the quotes which propose caution about the risk posed by [competitor] are from [Refinitiv employee] in this internal discussion. The [Refinitive employee], as quoted in the following recital, [internal competitive analysis of Refinitiv] the threat to be as deterrent. Lastly, the Commission notes that this internal discussion at Refinitiv reflects pre-Transaction views of only the Target, absent the combined entity's incentives downstream, which are described further below.

(1729) Next, the Commission finds that the fact that that WM/R's fees represent only a low proportion of the total costs of index providers[2121] does not change its critical nature for index providers. An input can be important within the sense of paragraph 34 of the Non-Horizontal Merger Guidelines even if it does not represent a significant percentage of the price of the downstream product, and this is indeed the case for WM/R as elaborated above. Indeed, the rest of the internal discussion at Refinitiv cited in the recitals above indicates that the [description of internal analysis of commercial strategy].[2122] The response to this statement indicates that Refinitiv has [description of internal analysis of commercial strategy] [2123] as per the feedback loop described above. However, after further correspondence the first colleague concludes "*[description of internal analysis of commercial strategy]*.[2124] Indeed this view is echoed in the Notifying Party's [internal document], described further below in recital (1756).

(1730) *Third*, switching away from WM/R is difficult and costly for an index provider, both due to the time and cost of changing their methodologies, systems, processes, etc. and due to the secondary effects of end-customers potentially switching away or if not, having to change their respective FX benchmark. DBAG, a rival index provider, notes that if the combined entity stopped providing its FX benchmarks to DBAG, "*We would need to move to an alternative source, this is both logistically*

2120 Doc ID 4991-75672.

2121 WM/R fees represent [a very small percentage of] of total input costs for FTSE Russell, as per RFI 29 reply, paragraph 102.

2122 Doc ID 4991-2533.

2123 Doc ID 4991-2533.

2124 Doc ID 4991-2533.

challenging … and may raise concerns with clients."[2125] The Notifying Party argues in the response to the SO that the only evidence for this contention is the response of one index provider and that the sole respondent who appeared to provide an estimate of the costs of switching FX benchmarks confirmed that such costs are in fact relatively low (EUR 30 000–40 000).[2126] The Commission notes, however, that the respondent who estimated those costs did so in response to a general question and not in relation to the cost of switching FX benchmarks, and as such is not relevant to this assessment. Moreover, those costs are not considered low in relation to the respondent's turnover, which it declared to be EUR 300 000. In any case, while it appears difficult for the index providers to quantify the costs of switching FX benchmarks, the majority did express concerns that it would be difficult and costly, and that they would lose at least a portion of their end-customers due to the change.[2127]

(1731) Some of the logistic challenges are demonstrated by this internal discussion at Refinitiv about the potential rebranding of the WM/R benchmark following Refinitiv's separation from Thomson Reuters: […].[2128] If index providers and asset managers would require up to 6 months' notice to change the name of the FX benchmark they use, switching the actual benchmark would be likely to take much longer and/or incur considerable cost to change the systems as well as the mandates and documentation. The Notifying Party states in its response to the SO that this correspondence is irrelevant to the considerations for index providers of switching away from WM/R, as it considers specific contractual notice requirements to customers for the rebranding of an existing FX benchmark provider.[2129] However the Commission considers that the contractual requirements themselves provide an indication of the process of changing mandates and documentation for index providers.

(1732) As regards the expected behaviour of end-customers, the market investigation indicated that a sizeable portion, 39% of informative respondents, would indeed switch index providers if their index provider was no longer able to use the WM/R FX benchmarks.[2130] The Notifying Party argues that since the majority of end-customers (61%) would continue to use indices supplied by their current index provider, even if that provider did not have access to WM/R data, from end-customers' perspective alternative FX benchmarks must be a viable alternative.[2131] The Commission acknowledges that 61% of informative end-customers said they would continue to use their existing indices even if the latter no longer used WM/R; however, the Commission notes that FX benchmarks are used for many purposes other than just for indices, including as a reference in financial contracts, portfolio valuation, performance measurement, etc. WM/R is the prevalent benchmark used for all these purposes, not just for indices. This is demonstrated by the fact that Refinitiv's sales of FX benchmarks to firms active in index licensing accounted for only [a small percentage]% of its total sales in 2018.[2132]

2125 Question 21, Questionnaire 20 to index providers, Doc ID 6471.
2126 Response to the SO, paragraph 305.
2127 Questions 16-17, Questionnaire 20 to index providers, Doc ID 6471.
2128 Doc ID 4257-5198.
2129 Response to the SO, paragraph 306.
2130 Question 42, Questionnaire 19 to information services end-customers, Doc ID 6469.
2131 Response to the SO, paragraph 304.
2132 Form CO, paragraph D.1045.

(1733) Considering the above, the Commission concludes that the combined entity would have the ability to engage in total input foreclosure in the market for index licensing by denying access to WM/R FX benchmarks.

(1734) The Commission considers that the combined entity would have the incentive to engage in total input foreclosure with respect to FX benchmarks upstream and index licensing downstream.

(1735) *First*, the combined entity will have an incentive to engage in an input foreclosure strategy if doing so proved profitable. The strategy would be profitable for the combined entity if the profit lost in the upstream market (namely, the revenues from licensing WM/R benchmarks to index providers) is smaller than the profit gained in the downstream market from being able to expand sales of FTSE Russell indices. The Commission has conducted economic analysis to assess whether the strategy would indeed be profitable, and has arrived at the conclusion that overall, the combined entity will likely have the incentive to engage in total input foreclosure in the market for index licensing by restricting access to WM/R FX benchmarks.

(1736) In order to assess the incentives, the Commission estimated the profit per index to Refinitiv from the licencing of WM/R; the Commission further estimated the profit for LSEG from the sale of the FTSE Russell indices per index. The Commission then estimated a critical switching rate of customers downstream that would create profit enough to compensate for the the aggregate possible loss upstream . The steps of the estimation are detailed below.

(1737) The Commission first estimated the profit potentially lost from the sale of WM/R per each index that is currently using the WM/R. The revenue of Refinitiv from licensing of FX benchmarks amounted to EUR […] in 2019, thereof EUR […] was paid by FTSE Russell.[2133] In order to estimate the profit derived from this revenue for Refinitiv the Commission estimates an appropriate profit margin. For the purposes of assessing the incentives to forego upstream venues in order to attract further profits downstream, the most appropriate profit margin is established by deducting only the variable costs. In fact, incremental or decreased business would not be expected to affect the fixed costs in the short term.

(1738) Refinitiv submitted that approximately [a small percentage] of its cost base is variable.[2134] According to Refinitiv, the most representative profit margin is likely to be the September 30, 2019 last twelve month adjusted EBITDA margin ([a significant percentage])[2135]. The Commission bases its estimate of incremental costs on these figures.

(1739) On this basis the Commission was able to estimate that Refinitiv derives on average a EUR […] per index using WM/R.

(1740) *Next*, the Commission estimated the potential profit downstream from additional index sales. For this purpose the Commission estimated the profit per index based on the financial figures on the performance of the FTSE Russell indices of LSEG. The

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2133 RFI 29 reply, question 20c.

2134 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.

2135 The adjusted EBITDA of Refinitiv for the 12 month period ending 30 September 2019 amounted to USD […] (see Form CO, Information Services, Annex 49).

income from sales of FTSE Russell indices across categories of assets and geographies amounted to EUR […] in 2019 according to the Notifying Party. [2136]

(1741) In order to estimate the profits derived by LSEG from its FTSE Russell index revenues, the Commission multiplies the revenue of the indicesby the gross profit margin of LSEG "Index" business segment, which stood at [a high percentage] in 2019.[2137]

(1742) The total number of FTSE Russell indices is estimated at 250 000 by the Notifying Party and […] are assumed to be using WM/R. This results in a profit of EUR […] per index.[2138] The Commission notes that the average profit per index is an approximation of the the average long-term downstream gains per index of a foreclosure strategy of the merging entity. In fact, considering the average value per index downstream approximates for revenue from small, medium, and larger customers. The Commission considers that an average value per index reflects the distribution of profits of indices, i.e. the fact that some revenues differ across indices and customers. Therefore, the Commission considers the assumption of uniform profit per index as a good approximation in the context of this analysis, since the Commission has no indication to contradict the assumption that the switching customers downstream would also represent a similar proportion of high-profit and low-profit indices.

(1743) Finally, the Commission estimated how many competing indices' customers would be required to switch to FTSE Russell indices in order to make this strategy profitable.

(1744) Based on the Commission's calculations, it would suffice that customers of […] rival indices switch to the combined entity to make the foreclosure strategy profitable, representing a critical switching rate of less than [a very small percentage]. In the market investigation 39% of informative end-customers said they would switch indices if their current index provider no longer used WM/R[2139]. The Commission concludes that the figures indicate a large incentive for the Party to conduct a total foreclosure strategy of WM/R. In its response to the SO, the Party criticized that the critical switching rate of indices does not correspond to the actual likely switching rate of end-customers estimated from the market investigation.[2140] Nevertheless, the Commission does not consider this argument as convincing for the following reasons. First, there are no indications on file or in the replies to the market investigation that the number of indices sourced by respondents are materially different than the number of non-respondents of the market investigation. Second, even assuming the end-customers responding to the market investigation have a more concentrated distribution than the overall market, the highly likely switching rate from the market investigation is comfortably above the critical switching rate calculated in the VA model above. Third, in any case, the Commission considers the assumption of uniform spend per index end-customer to be acceptable in the context of this analysis, since the Commission has no indication to contradict the assumption that the switching customers downstream would also represent a similar proportion of high-spending and low-spending index customers.

2136 Annex 1 to Response to the decision pursuant to Article 6(1)(c), 'Incentives to maintain wide ditribution of LSEG data', page 5.

2137 Form CO, Information Services, Annex 122.

2138 Approximation provided by the Notifying Party in the Form CO.

2139 Question 42, Questionnaire 19 to information services end-customers, Doc ID 6469.

2140 Response to the SO, Information Services, paragraph 331.

(1745) The inputs to the estimate by the Commission are detailed in Table 88 below, including the sources of the information.

Table 88

Category of items	#	Item	Value
Results of the Commission's market investigation[2141]		End-customers who said they would switch index providers if their current provider stopped using WMR	[30-40]%
Refinitiv WMR index upstream	A	Revenue from FX Benchmark Licensing 2019 (EUR)[2142]	[...]
	B	Revenue from FX Benchmark Licensing to LSEG 2019 (EUR)[2143]	[...]
	C	EBITDA margin in business segment 'Data' of LSEG internal reporting 2019[2144]	[a significant percentage]
	D	Portion of costs that are variable[2145]	[a small percentage]
	E	Refinitiv variable profit margin after deduction of variable cost[2146]	[a very high percentage]
	F	Profit from FX Benchmark Licensing (EUR)[2147]	[...]
	G	Total number of indices with WM/R[2148]	[...]
	H	Profits from FX Benchmark Licensing per index(EUR)[2149]	[...]
LSEG FTSE Russell indices downstream	I	LSEG revenue from FTSE Russell indices sales (EUR)[2150] in 2019	[...]
	J	Gross profit margin FTSE Russell indices[2151]	[a high percentage]
	K	Profit from FTSE Russell indices sales (EUR)[2152]	[...]
	L	Number of FTSE Russell indices[2153]	[...]
	M	Number of FTSE Russell indices using WM/R[2154]	[...]
	N	LSEG profit from sales per index (EUR)[2155]	[...]

2141 Question 42, Questionnaire 19 to information services end-customers, Doc ID 6469.
2142 RFI 29 reply, question 20c.
2143 RFI 29 reply, question 20c.
2144 The adjusted EBITDA of Refinitiv for the 12 months ended 30 September 2019 amounted to USD [...], from annex Annex 49 to the Form CO.
2145 Submission by Parties, 'Call on Financials', 9 June 2020, response to question 11.
2146 Calculated by the Commission (1-(1-C)*D).
2147 Calculated by the Commission (A*E).
2148 RFI 29 reply, Q20d.
2149 Calculated by the Commission (F/G).
2150 Annex 1 to Response to the decision pursuant to Article 6(1)(c), 'Incentives to maintain wide ditribution of LSEG data', page 5.
2151 Annex 122 to the Form CO.
2152 Calculated by the Commission (I*J).
2153 Approximation provided by the Notifying Party in the Form CO.
2154 Assumption that 80% of the indices use WMR based on RFI 29 reply, question 20c.
2155 Calculated by the Commission (K/L).

Category of items	#	Item	Value
Foreclosure impact	O	Number of foreclosed indices[2156]	[...]
	P	Potential loss from the foreclosure strategy (EUR)[2157]	[...]
	R	Critical number of indices whose customers would switch to FTSE[2158]	[...]
	S	Critical switching rate of index end-customers[2159]	[a very small percentage]

(1746) Based on the above, the Commission established a material financial incentive for the combined entity to engage in a total foreclosure of the WM/R FX benchmark.

(1747) In the response to the SO, the Notifying Party argues that the above analysis is a static analysis based on an unreliable switching rate that does not consider the detrimental effects that such a strategy would have on demand for WM/R as an FX benchmark. In particular the Notifying Party reiterates that wide adoption of an FX benchmark is key to its viability and WM/R's high market share relies on a positive feedback loop. For instance, the secondary effect of end-customers switching away from the WM/R will create loss of WM/R's market share, which would be exacerbated by significant reputational damage to the WM/R and FTSE Russell brands, the visibility of the strategy, the extremity of the departure from industry norms that such a strategy would represent; the likely counter-response by rival index providers to actively promote industry adoption of an open alternative to WM/R. The Notifying Party also highlights the fact that end-customers in question are large, sophisticated economic agents who would be expected to work with their index providers and regulators to transition to functionally equivalent rival FX benchmarks to mitigate disruption in critical global financial markets. As an example, the Notifying Party explains that in 2003, 11 credit dealers launched a rival to Morgan Stanley and JP Morgan's Trac-x family of credit derivatives, called Iboxx. The dealers cited discontent with the licensing and reconstitution of the incumbent Trac-x. Analogously, the Notifying Party argues that WM/R would be expected to lose a substantial portion of its share to rival FX benchmarks.

(1748) However, the Commission notes that the Notifying Party makes no attempt to estimate such a loss of market share or value, and indeed finds that WM/R's existing position, with its ubiquity in the financial markets and [70-80]% market share in FX benchmarks, would likely protect it from a loss sufficient to create a significant feedback effect.

(1749) With respect to the switching rate of 39%, in the response to the SO, the Notifying Party notes that the analysis is based on a highly limited number of respondents who are not representative of the Parties' customer base. It follows that, based on the above, the Commission errs in reaching marketwide conclusions from its switching analysis. However, for the reasons explained in recitals (987)ff the Commission relies on the switching rates from the market investigation to assess the likely post-merger behaviour of end-customers.

(1750) The Notifying Party also notes that in the market investigation, end-customers of information services were not asked how they would react to the proposed total

2156 Calculated by the Commission (G-M).
2157 Calculated by the Commission ((A-B)*E).
2158 Calculated by the Commission (P/N).
2159 Calculated by the Commission (R/O).

foreclosure scenario, as they were asked how they would react if only their current provider ceased to use WM/R, without explaining that FTSE Russell would be the only alternative provider using WM/R. As a consequence, the Notifying Party claims that the switching rate indicated by the response – 39% of customers indicated that they would switch to an index provider offering indices that use WM/R – likely represents a significant overstatement of the proportion of customers who would switch to FTSE Russell in the event of a total foreclosure scenario, since FTSE Russell alone is unlikely to have the full suite of indices that suit the diverse requirements of end-customers. The Commission takes note of the Notifying Party's point, but highlights that in the context of the rest of the questionnaire (in which other total foreclosure strategies were also discussed) and given the sophisticated nature of the respondents, the switching rate is not likely to be a significant overstatement. The end-customers with particular niche index needs potentially not met by FTSE Russell would likely fall under those not switching under the foreclosure scenario.

(1751) The Notifying Party argues further in the response to the SO that the Commission's analysis does not give proper consideration to the impact that a total foreclosure strategy would have on FTSE Russell revenue and profits. First, when considering the effect on profits at the downstream level if the combined entity refused to supply WM/R data to rival index providers, it is necessary to consider in particular the terms on which current payments to FTSE Russell by customers are determined and how a hypothetical increase in the usage of FTSE Russell indices would affect these payments. In this regard, it is important to note that while there is a range of "use cases" for indices, [a high percentage] of FTSE Russell's licence revenues in 2019 came from asset and wealth managers who primarily use index data in reports to clients on the performance of their portfolios and trading strategies which they recommended to their clients. These customers typically license all major indices (according to the Commission's own investigation), meaning a significant proportion of customers that use rival indices are likely to already have a licence for FTSE Russell index data. The LSEG distribution model is based on [description of commercial strategy]. This means that, to the extent an asset manager that already has access to any FTSE Russell index data decides to stop using MSCI or S&P indices (in favour of relying on FTSE Russell indices), it may have no effect on FTSE Russell revenue or profits, in particular from multi-use licences.

(1752) The Commission notes that even under a robustness check of its analysis, excluding [a high percentage] of the end-customer respondents based on the assumption that they already source FTSE Russell and therefore would not bring any additional revenue in the case of a total foreclosure, the gains downstream would still more than cover the losses upstream. This is demonstrated by the fact that if only [a significant percentage] (1-[a high percentage]) of the switchers from the market investigation actually brought new revenues to FTSE Russell, this would still be comfortably above the critical switching rate of [a very small percentage] shown in Table 88 above.

(1753) The Notifying Party argues further in the response to the SO that the number of indices switched is not the appropriate metric for calculation of a critical switching ratio and that the question that the Commission should be attempting to answer with its analysis is rather how many end-customers of rival index providers would need to switch to using FTSE Russell's indices to make a foreclosure strategy profitable. According to the Notifying Party this cannot be informed by examining the number of indices (which remains unchanged) or the per index revenue/profit; but rather the spend of end-customers. However, considering that FX rates are used in 95% of

indices worldwide, the Commission finds no reason to assume that the proportion of end-customers switching would be different across types of indices (from the least to the most profitable), and notes that the Notifying Party has not made a substantiated argument to this end. Therefore the Commission considers implicitly in the analysis that the proportion of switching end-customers would have, on average, the same spend per customer as the wider universe of index end-customers.

(1754) *Second*, it would appear from internal documents that the Notifying Party is already aware of [commercial strategy]. The Parties note in an internal document presenting [commercial strategy], [description of commercial policy].[2160]. The Parties further note, [description of commercial policy]. The Parties thus expect to gain […] in [commercial strategy] by [description of commercial policy].[2161]. Furthermore, the Notifying Party notes that such a [commercial policy] would need to be [description of commercial policy]. Hence, even though [description of commercial strategy], the Commission finds that post-Transaction, the abovementioned economic incentives could lead the Notifying Party to leverage the market power upstream of which it is evidently aware.

(1755) The Notifying Party, in the response to the SO, notes that this document was prepared by external consultants at an early stage of the Transaction and that the estimates therein had not been validated by LSEG; nor did the [commercial strategy]. This document therefore carries no probative weight.[2162] Moreover, these documents do not contemplate any form of harm or discrimination against rival index providers. In any case, the diminutive cost of WM/R relative to index providers' costs means there can be no plausible concern that a price-based foreclosure strategy could harm index provider rivals.

(1756) The Commission takes note of the fact that this synergy estimate did not form part of LSEG's final plans, highlighting that those final plans were not available to it, but points out that as late as May 2020, the statements mentioned above were included in documents that were presented as the products of the LSEG integration planning team. The Commission notes further that the Decision pursuant to Article 6(1)c, including preliminary concerns regarding non-horizontal effects in the vertical link in question, was issued to the Notifying Party in June 2020. [commercial strategy]. Moreover, internal discussions at Refinitiv suggest that this was, at least at an earlier date, the apparent position of LSEG. In any case, the Commission does not consider this estimate as evidence of planned harm, but rather as an indication of the awareness of the Notifying Party of the market power upstream.

(1757) The EU BMR requires that the administrator of a critical benchmark "shall take adequate steps to ensure that licences of, and information relating to, the benchmark are provided to all users on a fair, reasonable, transparent and non-discriminatory basis". Refinitiv Benchmark Services Ltd. ("RBSL"), the administrator of WM/R FX benchmarks (among others), committed to its supervisor the FCA that it would operate and administer the WM/R 4pm benchmark in accordance with FRAND principles, i.e. as if it were a critical benchmark.

(1758) However, the Commission does not consider this sufficient guarantee of the Notifying Party's claim that regulation or regulatory scrutiny will prevent the combined entity from engaging in foreclosure for the following reasons. *First*,

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2160 Doc ID 4991-51644 (emphasis added).

2161 Doc ID 4992-36.

2162 Response to the SO, paragraph 333.

following the UK's withdrawal from the EU, RBSL itself is no longer under EU regulation and FCA is not an EU supervisor. Pending any certainty about the WM/R's status as a critical benchmark under the EU BMR, the Commission finds that input foreclosure would not be "clearly or highly probably unlawful under EU law" in the meaning of paragraph 46 of the Non-Horizontal Merger Guidelines. *Second*, there is no guarantee that the regulatory scrutiny of a third country supervisor would achieve the same effect as being "clearly or highly probably unlawful under EU law". *Third*, the combined entity could unmake its commitment to the FCA, and it is not clear whether this would necessarily lead to the FCA withdrawing or suspending its authorisation as benchmark administrator.

(1759) Furthermore, even assuming the abovementioned concerns were addressed, it remains that the EU BMR does not include the use of critical benchmarks for index design/calculation as among the "use cases" that are protected by Article 22. As such, the foreclosure strategy would not be "clearly or highly probably unlawful under EU law", even if RBSL remained subject to EU law.

(1760) The Notifying Party argues that Refinitiv's board adopted a global policy which applies to all customers, regardless of customer location and use case and a reversal of this policy with the aim of targeting specific index rivals would be immediately visible to customers and cause irreversible damage to the credibility and reputation of the WM/R. However, it appears from the [internal document] that the Notifying Party has been [description of business strategy]e. In fact, during the market investigation, the majority of responsive index stated that they do not consider existing regulation to provide sufficient protection to access WM/R on FRAND terms.[2163]

(1761) *Third*, according to the Notifying Party, any strategy aimed at inhibiting end customers' ability to work with their chosen indices would be met with immediate customer backlash. In its response to the SO, the Notifying Party brought forward that a number of information services end-customers identified retaliation strategies in their responses to the market investigation[2164]: Julius Baer, "*This would be address[ed] through IPUG/SIPUG*"; KBC Group, "*We have an extensive commercial relationship with Refinitiv so it is in both parties interest to come to a solution that is mutually acceptable. Should this become an industrywide issue it should be tackled on a higher level rather than that of the individual financial institution*."; Société Générale believed that competition laws and antitrust authorities would act to prevent the implementation of such a strategy; Banca Monte dei Paschi di Siena, simply said, "*it is possible*." The Notifying Party adds that many end-customers discussed reconsidering their relationship with, and reducing purchases from, the merged entity: DZ Bank, "*DZ BANK would point out to Refinitiv that we do not agree with the procedure, regard this as market abuse and are considering canceling their products.*"; Standard Chartered, "*Where other suppliers are able to meet your requirements and if there was minimal cost impact or business disruption then demand could be migrated to other suppliers*."; Banco Santander, "*Any commercial discussion could be possible before contract renewals*."; Daiwa Capital Markets, "*We would review our business relationship with Refinitiv*"; Danske Banke, "*Yes - We would reach out to our account manager to express concerns and we would also evaluate our trading practices with the venue*." The Notifying Party

2163 Question 25, Questionnaire 20 to index providers, Doc ID 6471.

2164 Response to the SO, paragraphs 336, 337.

argues that for index providers, a simple retaliation strategy would be to stop supplying indices to Refinitiv as a data vendor.

(1762) The Commission finds that most of the abovementioned comments from end-customers describe high level and hypothetical reactions and that the few who suggested they may take concrete retaliatory action are large end-customers, not representative of the wider universe of index end-customers. Moreover, index providers submit that they could not take action to prevent or discourage any foreclosure behaviour or in any event, they could not do so effectively.[2165]

(1763) The Notifying Party argues that the fact that only 33% index provider respondents expect the Transaction will have negative impact on index licensing market whilst 90% expected total foreclosure will have a negative effect on their competitive position indicates that most respondents do not consider the Commission's total foreclosure scenario to be likely. However, third parties are not in a position to assess the likelihood to foreclose in this case, given the fact that they are not privy to all the information necessary to make a full assessment, including financial incentives discussed above. The Commision has made the assessment of ability and incentive to foreclose, taking into account all the evidence available to it.

(1764) Considering the above, the Commission concludes that the combined entity would have the incentive to engage in total input foreclosure in the market for index licensing by denying access to WM/R FX benchmarks.

(1765) A total/partial input foreclosure strategy involving FX benchmarks would pose a significant impediment to effective competition in the relevant markets for index licensing.[2166]

(1766) *First*, an input foreclosure strategy could harm competitors by forcing them to switch to alternatives and update their methodologies, systems and documentation. As STOXX, a rival index provider, puts it: "*STOXX would also further bear administrative costs of procuring and onboarding an alternative FX benchmark to replace the WMR benchmarks that are built into all of the relevant indices. This would include revising methodology guides and the EU BMR framework (e.g. revising its controls framework).*"[2167] Another index provider, Nasdaq, states "*If we did not have access to the Refinitiv products and there were no substitutes available, Nasdaq would need to build such services internally. Given the overall resource expenditure to […] compile the FX data, such expenditure may be cost prohibitive for Nasdaq*." [2168]

(1767) In its response to the SO, the Notifying Party remarks that any switching costs involved in adopting an alternative FX benchmark would be limited and one-off and reiterates that the Commission cites the qualitative submission of just one rival index provider. Further, the Notifying Party highlights that Nasdaq's response relates to a scenario where Nasdaq would have to build an FX benchmark internally rather than to switch to an alternative benchmark and hence is not relevant. The Commission reiterates, as above, that the majority of index providers did express concerns that it would be difficult and costly, and notes that Nasdaq's response is relevant, given that

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2165 Question 21, Questionnaire 19 to information services end-customers, Doc ID 6469.

2166 The relevant markets downstream for which FX benchmarks are inputs include convertible bond indices, ESG indices, equity indices (including UK, European and Global), fixed income indices, money market indices, multi-asset indices, and real estate indices.

2167 Question 17, Questionnaire 20 to index providers, Doc ID 6471.

2168 Question 17, Questionnaire 20 to index providers, Doc ID 6471.

it is an index provider and therefore aware of the available alternatives on the market.[2169]

(1768) *Second*, switching to less widely used alternatives would likely lead to a decline in their competitive position and loss of customers, as demonstrated by the fact that 41% of informative respondents said they would switch index providers in this case.[2170] Depending on the current market position of the competitor, and whether or not they are already 'entrenched' as a brand name index, it could even lead to their market exit. All of these effects could imply eventual price increases for the end-customers.

(1769) In particular, in the UK equity indices market LSEG holds a very high market share of [80-90]% with few and significantly smaller competitors (the largest, The Investment Association, having a market share of [0-5]%). Against this background, any total input foreclosure strategy would have a significant impact on the market for UK equity indices, because it would limit competitive challenges from these smaller rivals and strengthen the dominance of LSEG.

(1770) In the Global equity indices market, LSEG is currently one of the top three players (along with MSCI and S&P) who together hold [90-100]%[2171] of the market in what market participant Deutsche Performancemessungs-Gesellschaft für Wertpapierportfolios ("DPG") calls "*an oligopoly*".[2172] Despite attempts to copy these established brand names by achieving a very similar performance to them (i.e. with high correlation between the index values), cheaper "white-label" indices "*are generally far less commercially successful compared to the "original" indices* […] *Especially retail clients are much more familiar with original, brand indices like the FTSE 100 and are more comfortable to invest in these indices than in white-label indices, even if they are closely positively correlated with the original index* […]".[2173] Given this brand name effect, the competitive position of MSCI and S&P may not be as threatened by a possible customer erosion due to the foreclosure strategy as that of the remaining, smaller rivals. For the latter, any total input foreclosure strategy could significantly limit their ability to challenge the three incumbents.

(1771) One of the smaller rivals in the equity indices market, STOXX, notes, "*The dominant WM/R FX Rates are used by STOXX's main clients – asset managers and banks that use the rates to value their portfolio or trade currencies with their clients, respectively. As a consequence, these clients require that the valuations of multi-currency indices they use as benchmarks or trade against use the same rate. If STOXX is de facto forced to seek an alternative FX rate due to excessive cost increases, STOXX estimates a significant impact on its ability to compete. STOXX estimates that this would result in some loss of business in existing indices and a substantial reduction in new indices, as clients seek alternative index providers that utilise WM/R FX Rates to reduce valuation deviations between their own portfolios and STOXX indices*."[2174] Another, Nasdaq, indicates that this would "[weaken their] *position as an index provider and sets Nasdaq up to not be competitive with asset managers that are using Refinitive FX Benchmarks and Nasdaq is not. It sets up a*

2169 Questions 16-17, Questionnaire 20 to index providers, Doc ID 6471.
2170 Question 42, Questionnaire 19 to information services end-customers, Doc ID 6469.
2171 RFI 46.1 reply, Table 8.
2172 Question 141, Questionnaire 9 to information services end-customers, Doc ID 6480.
2173 Minutes of call with EFAMA/BVI, 17 December 2019, paragraph 13, Doc ID 375.
2174 Question 16, Questionnaire 20 to index providers, Doc ID 6471.

situation in which Nasdaq's licensees are more likely to experience tracking errors due to the use of different data sources." [2175]

(1772) The Notifying Party adds in the response to the SO that smaller rivals would not in particular be harmed, since in the UK equity indices they include large global companies (both branded and "white label") that have strong market presence in other markets and who could not plausibly be foreclosed. Moreover, customers of small rival index providers have revealed their preferences simply by acquiring services from "white label" competitors – they are less brand sensitive than other customers, and are likely more price sensitive. These customers are also less likely to have a significant preference for indices that use a wellknown brand of FX benchmark versus a less well known FX benchmark. If anything, customers of smaller index providers who have a less prestigious brand are less likely to switch.

(1773) The Commission acknowledges the Notifying Party's point that end-customers of smaller or niche index providers may potentially be less likely to switch (see recital (1752) above), but notes that the larger index providers nonetheless have a relatively larger customer base to better withstand the effects of a foreclosure.

(1774) *Third*, the market investigation does not confirm the Notifying Party's claim that the markets for index licensing are characterised by relatively low barriers to entry. Indeed, 83% of index providers note that entry barriers are high or very high.[2176] The main reasons cited by rivals are "*market data cost*" (Solactive), "*technological capability* […and…] *marketing*" (JP Morgan), and "*the benchmark regulation requires sophisticated systems and staffing*" (STOXX).[2177] As index provider Euronext Group summarizes, "*[b]arriers to entry in penetration of a new market can be high (technology investment, brand recognition), and therefore potential competition will depend on the index license potential revenues generated on the market*".[2178]

(1775) Any total input foreclosure strategy would increase barriers, making future entry or expansion (e.g. into innovative index licensing market segments) even more difficult. For instance, "*EFAMA/BVI has noticed a general trend towards ESG indices…ESG and other industry-specific indices are custom indices and can be created either upon request by the index provider, or by investment managers themselves…*"[2179] As LSEG is the second player in a potential ESG index licensing segment, with a market share of [10-20]%[2180] and [20-30]% respectively, the combined entity stands to gain considerably in this segment from a foreclosure of its rivals. Further, "*EFAMA/BVI notes that creating custom indices through currency conversion is a common practice among investment managers in order to serve clients around the world who seek to invest in brand indices like the FTSE 100 but would only do so in their local currency. For these currency conversions, Refinitiv's WM Reuters data is currently by far the most common source of exchange rates*" [2181]

(1776) The Notifying Party argues in the response to the SO that the Commission does not cite any evidence to support that barriers to entry would be raised by a total

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2175 Question 16, Questionnaire 20 to index providers, Doc ID 6471.
2176 Question 19, Questionnaire 20 to index providers, Doc ID 6471.
2177 Question 19, Questionnaire 20 to index providers, Doc ID 6471.
2178 Question 25, Questionnaire 10 to index competitors, Doc ID 6460.
2179 Minutes of call with EFAMA/BVI, 17 December 2019, paragraph 18, Doc ID 375.
2180 RFI 29 reply, Table 4.
2181 Minutes of call with EFAMA/BVI, 17 December 2019, paragraph 19, Doc ID 375.

foreclosure strategy, relying on the feedback from only one customer the relevance of which to the Commission's theory of harm is highly tenuous. The Notifying Party argues that the immediate adoption of an alternative FX benchmark or benchmarks by all rival index providers would ensure the continued availability of a widely accepted FX benchmark. However, based on the characteristics of the markets downstream, the Commission considers a concerted and smooth switch to an alternative FX benchmark less likely, and in any case such an alternative would not be in a position to challenge WM/R in the short term given the latter's overall importance in the financial markets. Lastly, the Commission recalls paragraph 49 of the NHMG, "*the mere likelihood that the merged entity would carry out a foreclosure strategy post-merger may already create a strong deterrent effect on potential entrants*".

(1777) *Last*, as described above, the Commission does not find that index providers or end-customers would hold sufficient buyer power or the power for retaliatory action to reduce the possible impact of the foreclosure strategy. Nor would the likelihood of entry upstream be able to do so, given that widespread use is a significant criterion for FX benchmarks, and the main reason why the majority of index providers does not consider existing competitors as viable alternatives.

(1778) Indeed, 90% of responsive index providers would expect a total foreclosure to have a negative impact on their competitive position.[2182] Altogether, 33% of informative index providers expect the Transaction to have a negative impact on the markets for indices, and the remaining 67% expect a neutral impact.[2183] Morningstar believes "*the transaction may significantly reduce the market share, unless stringent controls and conditions are placed, due to the market share of LSEG*".[2184] Deutsche Bank IQ ("DBIQ") notes, "*it is likely further consolidation will make it harder for smaller index providers to compete with these universal providers* [data providers who have index products]".[2185]

(1779) These are echoed in the concerns voiced by FCA in its 24 January 2020 letter to benchmark administrators, where it states "*competition may not be working well in the provision of benchmarks*" and "*some benchmark administrators operate across different segments of the value chain. This could lead to competition concerns if those firms restrict access to data inputs or charge more for them to other benchmark administrators who compete with them*".[2186]

(1780) The Commission notes that potential efficiencies might arise from the vertical integration of the Transaction. In order to substantiate efficiencies, *first*, the Commission asked the Notifying Party to submit evidence on their various efficiency claims[2187] in RFI 32. The reply to RFI 32 provides quantifications for revenue synergies, but it does not consistently show how potential synergies are passed on to consumers. The reply to RFI 32 also bases its projections on assumptions for which

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2182 Question 21, Questionnaire 20 to index providers, Doc ID 6471.

2183 Question 33, Questionnaire 10 to index competitors, Doc ID 6460.

2184 Question 30, Questionnaire 20 to index providers, Doc ID 6471.

2185 Question 30, Questionnaire 20 to index providers, Doc ID 6471.

2186 See FCA, Benchmark Administrator Supervisory Strategy Letter of 24 January 2020, Section 2, available at https://www fca.org.uk/publication/correspondence/portfolio-letter-benchmarks.pdf (last accessed on 11 June 2020).

2187 Response to the decision pursuant to Article 6(1)(c), paragraphs 31, 195, 229, 271, 356, and 423; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 2, pages 15 and 17; Response to the decision pursuant to Article 6(1)(c), Information Services, Annex 5, page 23.

supporting evidence is missing. The Commission considers that the reply to RFI 32 does not show cumulatively consumers benefits, merger-specificity and verifiability of the submitted efficiencies and, therefore considers that the efficiencies claimed by the Notifying Party do not meet the required standard.[2188] *Second*, the Commission notes that elimination of double marginalization was not considered in the Notifying Party's reply to RFI 32 or [reference to internal documents].[2189]

(1781) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the combined entity would have the ability and the incentive to foreclose third party access to WM/R FX benchmark licensing. The Commission concludes that such foreclosure would significantly impede effective competition on the markets for index licensing.

4.5.9.2. Customer foreclosure

A. The Notifying Party's view

(1782) Regarding total customer foreclosure in FX benchmarks by restricting access to the combined entity's index licensing activities downstream, the Notifying Party puts forward the following arguments.

(1783) First, the Parties' combined shares with respect to supply of indices (across all asset classes) is limited for most segments. The Parties face a large number of competitors across a number of segments. LSEG only has more than 30% market share in a small number of narrow index segments, so the combined entity would be neither an important nor irreplaceable route to market for the Parties' competitors in the upstream supply of FX benchmarks.

(1784) Second, even if the merged entity adopts a foreclosure strategy, it could not marginalise rival FX benchmarks as they are used far more extensively than just index licensing. To illustrate, Refinitiv's sales of FX benchmarks to firms active in index licensing accounted for only [a small percentage] of its total sales in 2018.[2190]

(1785) Third, the Notifying Party notes that the nature of FX benchmarks is such that costs of firms producing it are unlikely to materially vary if a single, minor distribution channel is lost. This is because the costs of producing FX benchmarks are largely fixed and do not vary substantially with the sales to index licensing.

B. The Commission's assessment

(1786) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for FX benchmarks from access to a sufficient customer base for the following reasons:

(a) First, as stated by the Notifying Party, the combined entity's market share in most of the downstream markets do not indicate an ability to foreclose

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2188 The Commission recalls that, according to the Non-Horizontal Meger Guidelines, "*When assessing efficiencies in the context of non-horizontal mergers, the Commission applies the principles already set out in Section VII of the Notice on Horizontal Mergers In particular, for the Commission to take account of efficiency claims in its assessment of the merger, the efficiencies have to benefit consumers, be merger-specific and be verifiable. These conditions are cumulative.*" (Non-Horizontal Merger Guidelines, paragraph 53)

2189 See for example [internal document] Doc ID 4991-55941; [internal document] Doc ID 4794-39566; and Annex 12, Annex 15, and Annex 17 of RFI 13 reply.

2190 Form CO, paragraph D.1045.

upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) Second, [description of FTSE Russell products][2191], so the foreclosure strategy would not significantly change the existing demand situation.

(c) Third, as noted by the Notifying Party, the existence of different distribution channels for the upstream product can ensure that a sufficiently large customer base would remain for FX benchmarks post-merger.[2192] In particular, index licensing is just one way in which FX benchmarks are used in the financial sector, and as evidenced by the small portion of revenues accounted for by it, is not the most important distribution channel.

(1787) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for FX benchmarks, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1788) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for FX benchmarks. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the market for FX benchmarks as a result of customer foreclosure in the abovementioned downstream markets.[2193]

(1789) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in FX benchmarks, following a customer foreclosure strategy in index licensing.

4.5.10. Desktop services (upstream) and Clearing services for Cash bonds; OTC IRDs; and Cash equities (downstream)

(1790) Clearing services providers may use a desktop service to access or download financial information, for example to conduct spot risk analysis or to verify market prices. The Transaction gives rise to vertically affected markets regarding desktop services (upstream) and clearing services for cash bonds; OTC IRDs; and cash equities (downstream). Upstream, in the market for desktop services, both Refinitiv and LSEG are active. The downstream markets vertically linked with desktop services are listed in Table 89 below. Only LSEG is active in these downstream markets.

Table 89

Vertical Links involving desktop services upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Desktop services (worldwide)	LSEG	[0-5]%	Clearing services for OTC IRDs (worldwide)	LSEG	[90-100]% (based on cleared volumes); [70-80]% (based on outstanding volumes)

2191 RFI 46 reply, paragraph 37.

2192 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2193 See, for instance, responses to question 34, Questionnaire 10 to index competitors, Doc ID 6460.

Vertical Links involving desktop services upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
			Clearing services for cash equities (EEA)[2194]		[50-60]%
	Refinitiv	[10-20]%	CCP Clearing of D2D-Traded Cash Bonds (EEA)[2195]		[90-100]%

Source: Form CO.

(1791) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table 89 above.

4.5.10.1. Input foreclosure

A. The Notifying Party's view

(1792) The Notifying Party submits that the combined entity would not have the ability to restrict access to desktop services to rivals in the downstream markets listed in Table 89 above. According to the Notifying Party, the combined entity would not have the ability to foreclose downstream rivals because (i) desktop services are a minor component of offering clearing services; (ii) clearing houses' spend on financial data (including desktop services) represents [a very small percentage] of clearing service revenues; and (iii) the combined entity faces strong competition in the upstream market for desktop services.[2196]

B. The Commission's assessment

(1793) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 89 above, by restricting access to desktop services.

(1794) *First*, based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2197] However, desktop services are not an important input for clearing services listed in Table 89 above:

(a) Desktop services do not constitute a critical component without which clearing services could not be developed or effectively sold in the market. The principal function of clearing services is to facilitate trading activity. The parties to a trade generate themselves the information that is required by the CCP to offer the clearing service. The use of other financial data (through a desktop service) is an input of a secondary nature and typically it is used by the clearing service provider only as a reference.

(b) End-customers do not seem to choose clearing service provider based on the desktop service the provider uses. Rather, in the market investigation, end-customers identified the total cost of clearing and margin requirements as the

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2194 RFI 13 reply, "M9564_Cash equities 2019 update", Table 17 (including market shares based on the number of cleared trade sides). The market share of LSEG in the same market based on value of trades cleared is [40-50]% (see RFI 13 reply, "M9564_Cash equities 2019 update", Table 18).

2195 RFI 13 reply, "M9564_Cash bonds 2019 update", Table 27.

2196 Form CO, paragraphs D.742-D.744.

2197 Non-Horizontal Merger Guidelines, paragraph 34.

most important criteria when selecting a CCP for OTC IRD trades.[2198] End-customers identified clearing fees, connectivity to trading venues, and netting arrangements as the main parameters of competition for clearing services in cash bonds.[2199] The market investigation did not provide any evidence that desktop services are an important parameter that end-customers take into account when selecting clearing services in cash equities.

(1795) *Second*, according to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2200] In the present case, the combined entity held a share of 11-[10-20]% worldwide in desktop services in 2019. Post-Transaction, Bloomberg and other smaller rivals will remain in the upstream market. These players could expand output to supply desktop services for any downstream rivals that the combined entity decided to foreclose.

(1796) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 89 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1797) Nevertheless, as regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in Table 89 above, as a result of an input foreclosure strategy involving desktop services.

(1798) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for clearing services in cash equities; cash bonds; and OTC IRDs, following an input foreclosure strategy in desktop services.

4.5.10.2. Customer foreclosure

A. The Notifying Party's view

(1799) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in desktop services, by restricting access to its demand in the downstream markets listed in Table 89 above. According to the Notifying Party, the combined entity would not have the ability to foreclose rivals because (i) clearing services is one of the many use cases of desktop services and (ii) the expenditure of clearing services providers represents an insignificant percentage of the total desktop services market size.[2201]

B. The Commission's assessment

(1800) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for desktop services from access to a sufficient customer base for the following reasons:

2198 Question 30, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 37, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

2199 Question 45, Questionnaire 5 to EGB buy-side customers, Doc ID 6476 and Question 55, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.

2200 Non-Horizontal Merger Guidelines, paragraph 35.

2201 Form CO, paragraphs D.745-D.747.

(a) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for desktop services post-merger.[2202] Desktop services are used for a wide range of use cases besides clearing services, including trading; wealth management; asset management; investment banking; and academic research.[2203] Post-Transaction, there will remain several purchasers in markets other than the downstream markets in Table 89 above, to whom upstream rivals can sell desktop services.

(b) The total expenditure of LSEG's clearing service providers on desktop services represents [a very small percentage] of the total demand for desktop services worldwide in 2018. Upstream rivals of the combined entity would continue to have access to [a very high percentage] of the worldwide customer base for desktop services post-Transaction, even if the combined entity engaged in customer foreclosure involving the downstream markets in Table 89 above.

(1801) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for desktop services, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1802) Nevertheless, as regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on desktop services, as a result of a customer foreclosure strategy involving the downstream markets in Table 89 above.

(1803) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on desktop services worldwide, following a customer foreclosure strategy in the downstream markets listed in Table 89 above.

4.5.11. LSE venue data (upstream) and non-real time datafeeds, CNPRDs, tick history, funds data, execution management systems, and order management systems (downstream)

(1804) As explained in recitals 209(735)ff. above, LSE is a venue focusing on trading services for cash equities. As a result of these trading services, it generates venue data.

(1805) Data vendors carry LSE venue data in non-real time datafeeds; CNPRDs; funds data; and tick history products. Venue data (including from LSE) can also be displayed on the interface of OMS and EMS.

(1806) The Transaction gives rise to vertically affected markets regarding LSE venue data (upstream) and non-real time datafeeds; CNPRDs; funds data; tick history products; OMS and EMS (downstream).[2204] In the upstream market for LSE venue data, LSEG

2202 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2203 Form CO, Information Services, Table 9.

2204 The Transaction also gives rise to vertical overlaps between LSE venue data (uptream) and CRTDs and desktop services (downstram). These are assessed in Sections 4.5.1 and 4.5.2. For completeness, the Transaction also technically gives rise to vertical overlaps between the market for LSE venue data (upstream) and the relevant markets for ESG indices; global equity index licensing; European equity index licensing; multi-asset index licensing; trading services for cash equities; and trading services for equity derivatives. However, in all these downstream markets, LSEG is already present today and Refinitiv's presence is […] (market share of [0-5]% or less in 2019). Against this background, the position of the combined entity in these downstream markets would not be meaningfully different from the competitive position of LSEG pre-Transaction. Therefore, the Commission considers that the

has a monopoly position. The downstream markets vertically linked with LSE venue data are listed in Table 90 below. Only Refinitiv is active in the downstream markets for tick history; EMS; and OMS. Both Refinitiv and LSEG are active in the downstream markets for non-real time datafeeds; and CNPRDs; and funds data.

Table 90

Vertical Links involving LSE venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
LSE venue data	LSE	[90-100]%	Non-real time datafeeds (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Consolidated non-real time pricing and reference data (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Funds data (worldwide)[2205]	LSEG	[0-5]%
				Refinitiv	[5-10]%
			Tick history (worldwide)[2206]	Refinitiv	[30-40]%
			Order management systems[2207]	Refinitiv	[0-5]%
			Execution management systems[2208]	Refinitiv	[0-5]%

Source: Form CO.

(1807) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table 90 above.

4.5.11.1. Input Foreclosure

A. The Notifying Party's view

(1808) According to the Notifying Party, it is implausible that the combined entity would use its control over LSE venue data to foreclose rivals in the downstream markets listed in Table 90 above. According to the Notifying Party, venue data in general (including LSE venue data) is not an important input for the product markets for non-real time datafeeds; CNPRDs; and funds data, because these downstream products combine several types of pricing information and financial data other than venue

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Transaction will not change the combined entity's ability or incentive to engage in input foreclosure in these markets, by restricting access to LSE venue data.

2205 In a plausible EEA-wide market for funds data, the market share of Refinitiv in 2019 was [0-5]% and of LSEG [0-5]%.

2206 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2207 In a plausible EEA-wide market for order management systems, the market share of Refinitiv in 2019 was [0-5].

2208 In a plausible EEA-wide market for execution management systems, the market share of Refinitiv in 2019 was [0-5].

data. Moreover, in particular for the markets of non-real time datafeeds; CNPRDs and tick history, the Notifying Party claims that the combined entity would not have the incentive to engage in input foreclosure, because end-customers would not switch away from their current downstream providers to ensure access to LSE venue data. As regards OMS and EMS, the Notifying Party submits that competing suppliers typically receive LSE venue data through CRTDs. An input foreclosure strategy in the downstream markets for execution and order management systems would require also foreclosure in the downstream market for CRTDs. Such a multi-layer foreclosure strategy would likely trigger fierce customer backlash, reputational harm, and regulatory reaction.[2209]

B. The Commission's assessment

B.1. LSE venue data (upstream) and non-real time datafeeds, CNPRDs, and funds data (downstream)

(1809) The Commission considers that any input foreclosure strategy by the combined entity involving LSE venue data is unlikely to impact effective competition in the downstream markets for non-real time datafeeds, CNPRDs, and funds data.

(1810) While the Commission recalls the importance of LSE as a trading venue for equities in the EEA and LSEG's natural monopoly over LSE venue data,[2210] it finds that the combined entity would be unlikely to foreclose rivals in the downstream markets for non-real time datafeeds, CNPRDs, and funds data for the following reasons.

(1811) *First*, competitors in the downstream markets for non-real time datafeeds, CNPRDs, and funds data typically use LSE non-real time venue data as an input for their products. The Commission notes that based on Articles 12 and 13 MiFIR, a core set of LSE non-real time venue data (delayed data) is available for free 15 minutes after publication. Consequently, if the combined entity engaged in an input foreclosure strategy involving LSE venue data, LSE delayed data would remain available in the market free of charge. Any input foreclosure strategy is thus unlikely to impact significantly the overall quality of the offering of non-real time datafeed; CNPRD; and funds data rivals or the purchasing decisions of end-customers in these markets.[2211]

(1812) *Second*, the downstream markets for non-real datafeeds, CNPRDs, and funds data are highly competitive and in each market there are at least two players with shares higher than the combined entity:

(a) In the worldwide market for non-real time datafeeds, the combined market share of the Parties was [10-20]% in 2019. In this market, Refinitiv is the third largest player, facing strong competitive constraints from ICE which holds a share of [10-20]%; Bloomberg with a share of [10-20]%; IHS Markit ([5-10]%); and S&P ([5-10]%);

(b) In the worldwide market for CNPRDs, the combined market share of the Parties was [10-20]% in 2019. In this market, Refinitiv is the third largest

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2209 RFI 46 reply, question 1.

2210 See Sections 4.5.1.2.A.1, 4.5.1.2.A.2, and 4.5.1.2.A.3 above.

2211 See in the same vein, RFI 49 reply, questions 2-3. The Commission also notes the difference in revenues that LSEG generates from LSE real-time venue data and LSE non-real time venue data. For example, in 2019, LSEG generated EUR […] from LSE real-time venue data. In the same year, LSEG generated only EUR […] from LSE non-real time venue data (RFI 13 reply, "IS - Form CO Tables 2019 update", Table 12 and RFI 49 reply, question 4).

player, facing strong competitive constraints from ICE which holds a share of [20-30]%; Bloomberg with a share of [10-20]%; IHS Markit ([10-20]%); SIX ([0-10]%); and S&P ([0-5]%); and

(c) In a worldwide market for funds data, the combined share of the Parties was [5-10]% in 2019. In this market, Refinitiv is the fourth largest player, facing strong competitive constraints from Morningstar, which holds a share of [20-30]-[30-40]% but also other players like Nasdaq ([5-10]%), HgCapital ([5-10]%), Kneip (Lux) ([5-10]%), and Preqin ([0-5]%). In an EEA-wide market for funds data, the combined share of the Parties was even lower in 2019 (limited to [0-5]%). In this market, Refinitiv would again face strong competitive constraints from Morningstar (with a share of [20-30]-[30-40]%) but also from HG Capital (with [10-20]-[20-30]%), Kneip (Lux) ([10-20]%); ISS ([10-20]%); and Nasdaq ([5-10]%).

(1813) Against this background, an input foreclosure strategy by the combined entity involving LSE venue data is unlikely to soften competition in the downstream markets for non-real time datafeeds, CNPRDs, and funds data.

(1814) Finally, the Commission notes that in the market investigation, end-customer respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets for non-real time datafeeds, CNPRDs, and funds data, as a result of input foreclosure involving LSE venue data.[2212]

(1815) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for non-real time datafeeds; CNPRDs; and funds data, following an input foreclosure strategy involving LSE venue data.

B.2. LSE venue data (upstream) and tick history, EMS, and OMS (downstream)

(1816) The Commission considers that the combined entity would not have the incentive to engage in input foreclosure in the downstream markets for tick history, OMS or EMS, by restricting access to LSE venue data.

(1817) The Commission recalls the importance of LSE as a trading venue for equities in the EEA and LSEG's natural monopoly over LSE venue data.[2213] However, the Commission's market investigation did not provide sufficient evidence that the combined entity would have the incentive to engage in input foreclosure in tick history, OMS, and EMS:

(a) In a worldwide market for tick history products, Refinitiv offers Tick History. Refinitiv is the number one player, holding a market share of [30-40]% in 2019.[2214] Other competitors include OneMarket Data (with a share of [5-10]%), Vela ([5-10]%), and Bloomberg ([0-5]-[5-10]%). However, several end-customers also source venue data through direct feeds in addition to the tick history product they purchase.[2215] Other end-customers source historical tick-

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2212 Questions 51, 66, 81-82, 84.1, 171, Questionnaire 9 to information services end-customers, Doc ID 6480.

2213 See Sections 4.5.1.2.A.1, 4.5.1.2.A.2, and 4.5.1.2.A.3 above.

2214 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2215 According to the Notifying Party, already today, "*Refinitiv's Tick History customers also obtain tick history data directly from exchanges...*" (see RFI 46 reply, question 5(ii)).

by-tick data directly through their desktop services.[2216] Moreover, there are end-customers like Nomura and Deutsche Bank who submit that they can compile their own database with historic tick data[2217] based on a CRTD product. Thus, an input foreclosure strategy would only benefit Refinitiv's Tick History product if it were multi-layered. The combined entity would have to restrict access to (i) rival tick history providers and also to (ii) CRTD rivals and (iii) desktop service rivals (e.g., Bloomberg). The combined entity would also have to restrict access to LSE venue data to end-customers of Refinitiv CRTD (unless they purchase Refinitiv Tick History).[2218] Finally, the combined entity would also have to stop offering direct LSE venue data feeds to end-customers of rival tick history providers, which would be in breach of Articles 12 and 13 MiFIR regarding delayed data. The Commission considers that the combined entity would not have the incentive (or the ability) to engage in such an excessive and complex input foreclosure strategy,[2219] which would even degrade the quality of its own CRTD product;[2220]

(b) In the downstream market for OMS, players typically receive LSE (real-time) venue data from a CRTD service, including Refinitiv's Elektron or a rival CRTD.[2221] If the combined entity wanted to prevent end-customers from accessing LSE venue data through OMS rivals, it would have to deny access to LSE venue data to all CRTD competitors. The combined entity would also have to restrict access to LSE venue data to end-customers of Refinitiv CRTD (unless they purchase Refinitiv's OMS product).[2222] The Commission considers it unlikely that the combined entity would have the incentive (or the ability) to engage in such an excessive and complex input foreclosure strategy, which would even degrade the quality of its own CRTD product.[2223] In any event, according to the Non-Horizontal Merger Guidelines, the incentive for the combined firm to engage in input foreclosure depends also on the share of that diverted demand that the combined entity can capture dowstream.[2224] In this respect, the Commission notes that in a worldwide market for OMS, Refinitiv held a share of only [0-5]% in 2019.[2225] In this market, Refinitiv faces strong competitive constraints from the number one player, State Street, which holds a share of [20-30]%, SS&C Tech ([20-30]%), Bloomberg ([5-10]-[10-20]%), Hundsun Tech ([5-10]%), and NRI ([0-5]%); and

(c) In the downstream market for EMS, players typically receive LSE (real-time) venue data from a CRTD service, including Refinitiv's Elektron or a rival

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2216 For example, Bloomberg's tick history product is not commercialised separately and it is available through the Bloomberg desktop at no additional cost to the end-customer (see "Trading – Tick History", Doc ID 4991-42371).

2217 RFI 46 reply, question 1.

2218 Approximately [20-30]% of Refinitiv's Elektron end-customers also take Tick History today (see Form CO, Information Services, Annex 201).

2219 Such a strategy would even degrade the quality of its own CRTD product.

2220 This degradation would be the result of the combined entity's decision to stop offering LSE venue data as part of the Refinitiv CRTD to end-customers who do not purchase Refinitiv Tick History.

2221 Form CO, paragraph D.609 and RFI 46 reply, question 1.

2222 Form CO, paragraph D.609.

2223 This degradation would be the result of the combined entity's decision to stop offering LSE venue data as part of the Refinitiv CRTD to end-customers who do not purchase Refinitiv's OMS.

2224 Non-Horizontal Merger Guidelines, paragraph 42.

2225 In a plausible EEA-wide market for order management systems, the market share of Refinitiv in 2019 was [0-5]%.

CRTD.[2226] If the combined entity wanted to prevent end-customers from accessing LSE venue data through EMS rivals, it would have to deny access to LSE venue data to all CRTD competitors. The combined entity would also have to restrict access to LSE venue data to end-customers of Refinitiv CRTD (unless they purchase Refinitiv's EMS product).[2227] The Commission considers it unlikely that the combined entity would have the incentive (or ability) to engage in such an excessive and complex input foreclosure strategy, which would even degrade the quality of its own CRTD product.[2228] In any event, according to the Non-Horizontal Merger Guidelines, the incentive for the combined firm to engage in input foreclosure depends also on the share of that diverted demand that the combined entity can capture dowstream.[2229] The Commission notes that in a worldwide market for EMS, Refinitiv held a share of only [0-5]% in 2019.[2230] In this market, Refinitiv faces strong competitive constraints from the number one player, Bloomberg, which holds a share of [20-30]%, Instinet ([5-10]-[10-20]%), Flextrade ([5-10]%), Trading Tech ([5-10]%), and Virtu Financial ([0-5]%).

(1818) Finally, in the Commission's market investigation, end-customer respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets for tick history, OMS and EMS, as a result of an input foreclosure strategy involving LSE venue data.[2231]

(1819) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history, OMS, and EMS, following an input foreclosure strategy involving LSE venue data.

4.5.11.2. Customer Foreclosure

(1820) According to the Non-Horizontal Merger Guidelines, customer foreclosure takes place where a merger is likely to foreclose upstream rivals by restricting access to a sufficient customer base.[2232] The Commission notes that LSEG holds a monopoly in the upstream market for LSE venue data.[2233] Refinitiv can only purchase LSE venue data today from the Notifying Party and this will not change post-Transaction.[2234] Thus, there is no scope for customer foreclosure strategies impacting the upstream market, as a result of the proposed Transaction.

2226 Form CO, paragraph D.609 and RFI 46 reply, question 1.

2227 Form CO, paragraph D.609.

2228 This degradation would be the result of the combined entity's decision to stop offering LSE venue data as part of the Refinitiv CRTD to end-customers who do not purchase Refinitiv's EMS.

2229 Non-Horizontal Merger Guidelines, paragraph 42.

2230 In a plausible EEA-wide market for execution management systems, the market share of Refinitiv in 2019 was [0-5]%.

2231 Questions 51, 66, 81-82, 84.1, 171, Questionnaire 9 to information services end-customers, Doc ID 6480.

2232 Non-Horizontal Merger Guidelines, paragraph 30.

2233 See Table 90 above.

2234 As explained above, a supplier operating a trading venue has a "natural" monopoly over the data generated by this venue (see recitals (437) and (734) above). If Refinitiv needs data from other trading venues as an input for its products in the downstream markets listed in Table 90 above, this data must be purchased today from the supplier operating the trading venue. This will not change post-Transaction.

4.5.12. Turquoise venue data (upstream) and desktop services, CRTDs, non-real time datafeeds, CNPRDs, tick history, execution management systems, and order management systems (downstream)

(1821) Turquoise is a trading venue offering trading services for cash equities. As a result of these trading services, it generates venue data.

(1822) Data vendors carry Turquoise venue data in their desktop services; CRTDs; non-real time datafeeds; CNPRDs; and tick history products. Venue data (including from Turquoise) can also be displayed on the interface of order management systems and execution management systems.

(1823) The Transaction gives rise to vertically affected markets regarding Turquoise venue data (upstream) and desktop services; CRTDs; non-real time datafeeds; CNPRDs; tick history products; execution management systems; and order management systems (downstream). In the upstream market for Turquoise venue data, LSEG has a monopoly position. The downstream markets vertically linked with Turquoise venue data are listed in Table 91 below. Only Refinitiv is active in the downstream markets for CRTDs; tick history; execution management systems; and order management systems. Both Refinitiv and LSEG are active in the downstream markets for desktop services; non-real time datafeeds; and CNPRDs.

Table 91

Vertical Links involving Turquoise venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Turquoise venue data	LSEG	[90-100]%	Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			CRTDs (worldwide)	Refinitiv	[40-50]%
			Non-real time datafeeds (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Consolidated non-real time pricing and reference data (worldwide)[2235]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Tick history (worldwide)[2236]	Refinitiv	[30-40]%
			Execution management systems[2237]	Refinitiv	[0-5]%

2235 In a plausible EEA-wide market for consolidated non-real price and reference data, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2236 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2237 In a plausible EEA-wide market for execution management systems, the market share of Refinitiv in 2019 was [0-5].

Vertical Links involving Turquoise venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
			Order management systems[2238]	Refinitiv	[0-5]%

Source: Form CO.

(1824) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table 91 above.

4.5.12.1. Input Foreclosure

A. The Notifying Party's view

(1825) According to the Notifying Party, the combined entity would not have the ability or the incentive to restrict access to Turquoise venue data to rivals in the downstream markets listed in Table 91 above. According to the Notifying Party, Turquoise venue data is not an important input for these downstream product markets. Moreover, in particular for the downstream markets of CRTDs; CNPRDs; non-real time datafeeds and tick history, the Notifying Party claims that the combined entity would not have the incentive to engage in input foreclosure, because end-customers would not switch away from their current providers in the downstream markets to ensure access to Turquoise venue data – they would simply add a product from Refinitiv.[2239]

B. The Commission's assessment

(1826) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 91 above, by restricting access to Turquoise venue data.

(1827) According to the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2240] However, Turquoise venue data are not an important input for any of the downstream markets listed in Table 91 above:

(a) In the market for trading services for cash equities, Turquoise held a share of [0-5]% in 2019 (by value of trades).[2241] In the same year, LSEG's revenues from Turquoise real-time venue data was EUR […], much lower than the total revenues from LSE real-time venue data (EUR […]) or Borsa Italiana (EUR […]);[2242]

(b) During the market investigation, when asked to identify the top five cash equities trading venues whose data are "must-have" for operations in the EEA, only one out of 24 end-customer respondents identified Turquoise.[2243] Similarly, when asked to identify the top five cash equities trading venues

2238 In a plausible EEA-wide market for order management systems, the market share of Refinitiv in 2019 was less than [0-5].
2239 RFI 46 reply, question 1.
2240 Non-Horizontal Merger Guidelines, paragraph 34.
2241 Form CO, Cash Equities, Table 7, as updated by RFI 13 reply. Turquoise's market share in the same market was [10-20]% in 2016; [5-10]% in 2017; and [5-10]% in 2018.
2242 Form CO, Information Services, Table 12.
2243 Question 108, Questionnaire 9 to end-customers, Doc ID 6480.

whose data are most carried by data vendors in the EEA, only two out of 18 end-customer respondents mentioned Turquoise.[2244] As regards data vendors, when asked to explain whether LSEG and Refinitiv venue data are a key part of their offering to end-customers in the EEA, only one out of seven identified Turquoise.[2245]

(1828) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 91 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1829) However, as regards impact, the Commission notes that in the market investigation, end-customer respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in Table 91 above, as a result of an input foreclosure strategy involving Turquoise venue data.[2246]

(1830) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for desktop services; CRTDs; non-real time datafeeds; CNRPDs; tick history; execution management systems; and order management systems, following an input foreclosure strategy involving Turquoise venue data.

4.5.12.2. Customer Foreclosure

(1831) According to the Non-Horizontal Merger Guidelines, customer foreclosure takes place where a merger is likely to foreclose upstream rivals by restricting access to a sufficient customer base.[2247] The Commission notes that LSEG holds a monopoly in the upstream market for Turquoise venue data.[2248] Refinitiv can only purchase Turquoise venue data today from the Notifying Party and this will not change post-Transaction.[2249] Thus, there is no scope for customer foreclosure strategies impacting the upstream market, as a result of the proposed Transaction.

4.5.13. CurveGlobal venue data (upstream) and desktop services, CRTDs, non-real time datafeeds, CNRPDs, tick history, funds data, execution management systems, and order management systems (downstream)

(1832) CurveGlobal is a trading venue offering trading services for IRDs. As a result of these trading services, it generates venue data. However, today, CurveGlobal does not generate any revenues from its venue data.[2250]

(1833) Data vendors carry CurveGlobal venue data in their desktop services; CRTDs; non-real time datafeeds; CNRPDs; tick history products; and funds data. Venue data

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2244 Question 109, Questionnaire 9 to end-customers, Doc ID 6480.

2245 Question 171, Questionnaire 8 to data vendors, Doc ID 6479.

2246 Questions 19-20, 36-37, 51, 66, 81-82, 84.1, 171, Questionnaire 9 to information services end-customers, Doc ID 6480.

2247 Non-Horizontal Merger Guidelines, paragraph 30.

2248 See Table 91 above.

2249 As explained above, a supplier operating a trading venue has a "natural" monopoly over the data generated by this venue (see recitals (437) and (734) above). If Refinitiv needs data from other trading venues as an input for its products in the downstream markets listed in Table 91 above, this data must be purchased today from the supplier operating the trading venue. This will not change post-Transaction.

2250 Form CO, paragraph D.106.

(including CurveGlobal) can also be displayed on the interface of order management systems and execution management systems.

(1834) The Transaction gives rise to vertically affected markets regarding CurveGlobal venue data (upstream) and desktop services; CRTDs; non-real time datafeeds; CNPRDs; tick history products; funds data; execution management systems; and order management systems (downstream). In the upstream market for CurveGlobal venue data, LSEG has a monopoly position. The downstream markets vertically linked with CurveGlobal venue data are listed in Table 92 below. Only Refinitiv is active in the downstream markets for CRTDs; tick history; execution management systems; and order management systems. Both Refinitiv and LSEG are active in the downstream market for desktop services; non-real time datafeeds; CNPRDs; and funds data.

Table 92

Vertical Links involving CurveGlobal venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Curve Global venue data	LSEG	[90-100]%	Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			CRTDs (worldwide)	Refinitiv	[40-50]%
			Non-real time datafeeds (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Consolidated non-real time pricing and reference data (worldwide)[2251]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Tick history (worldwide)[2252]	Refinitiv	[30-40]%
			Funds data (worldwide)[2253]	LSEG	[0-5]%
				Refinitiv	[5-10]%
			Execution management systems[2254]	Refinitiv	[0-5]%
			Order management systems[2255]	Refinitiv	[0-5]%

Source: Form CO.

2251 In a plausible EEA-wide market for consolidated non-real price and reference data, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2252 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2253 In a plausible EEA-wide market for funds data, the market share of Refinitiv in 2019 was [0-5]% and of LSEG [0-5]%.

2254 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [0-5]%.

2255 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [0-5]%.

(1835) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table 92 above.

4.5.13.1. Input Foreclosure

A. The Notifying Party's view

(1836) According to the Notifying Party, the combined entity would not have the ability or the incentive to restrict access to CurveGlobal venue data to rivals in the downstream markets listed in Table 92 above. According to the Notifying Party, CurveGlobal venue data is not an important input for the downstream product markets. Moreover, in particular for the downstream markets of CRTDs; CNPRDs; non-real time datafeeds; and tick history, the Notifying Party claims that the combined entity would not have the incentive to engage in input foreclosure, because end-customers would not switch away from their current providers in the downstream markets to ensure access to CurveGlobal venue data – they would simply add a product from Refinitiv.[2256]

B. The Commission's assessment

(1837) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 92 above, by restricting access to CurveGlobal venue data.

(1838) According to the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2257] However, CurveGlobal venue data are not an important input for any of the downstream markets listed in Table 92 above:

(a) CurveGlobal's market position in trading services for exchange-traded IRDs is limited. The Notifying Party estimates that CurveGlobal's current market share, in terms of average daily notional volumes traded, is [0-5]% or less.[2258] This is underscored by the fact that CurveGlobal does not monetise its venue data today;

(b) CurveGlobal venue data is carried only by very few data vendors today (including […] desktop services and […] CRTDs). According to the Notifying Party, there are no end-customers who access CurveGlobal real-time venue data through a data vendor;[2259] and

(c) During the market investigation, when asked to identify the top five IRD trading venues whose data are "must-have" for operations in the EEA, none of the end-customer respondents identified CurveGlobal.[2260] Similarly, when asked to identify the top five IRD trading venues whose data are most carried by data vendors in the EEA, none of the end-customer respondents mentioned CurveGlobal.[2261]

(1839) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 92 above, it is not necessary

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2256 RFI 46 reply, question 1.
2257 Non-Horizontal Merger Guidelines, paragraph 34.
2258 RFI 46 reply, question 1, paragraph 78.
2259 RFI 46 reply, question 1.
2260 Question 108, Questionnaire 9 to end-customers, Doc ID 6480.
2261 Question 109, Questionnaire 9 to end-customers, Doc ID 6480.

to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1840) However, as regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in Table 92 above, as a result of an input foreclosure strategy involving CurveGlobal venue data.[2262]

(1841) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for desktop services; CRTDs; non-real time datafeeds; CNRPDs; tick history; funds data; execution management systems; and order management systems, following an input foreclosure strategy involving CurveGlobal venue data.

4.5.13.2. Customer Foreclosure

(1842) According to the Non-Horizontal Merger Guidelines, customer foreclosure takes place where a merger is likely to foreclose upstream rivals by restricting access to a sufficient customer base.[2263] The Commission notes that LSEG holds a monopoly in the upstream market for CurveGlobal venue data.[2264] Refinitiv can only purchase CurveGlobal venue data today from the Notifying Party and this will not change post-Transaction.[2265] Thus, there is no scope for customer foreclosure strategies impacting the upstream market, as a result of the proposed Transaction.

4.5.14. Tradeweb venue data (upstream) and global, European, and UK equities index licensing, ESG index licensing, multi-asset index licensing, fixed income index licensing, convertible bonds index licensing, money markets index licensing, trading services for cash equities, trading services for equity derivatives, clearing services for: cash equities, cash bonds, CDS, equity derivatives, repos, and IRDs (downstream)

(1843) Tradeweb is a trading venue offering trading services for fixed income; derivatives; ETFs; and other financial instruments. As a result of these trading services, it generates and commercialises venue data. Index providers may use venue data (including Tradeweb venue data) for reference purposes when designing new indices. Trading venues use other venues' data either as a reference point to facilitate trading (e.g., MTFs use exchange prices in order to operate dark pools) or as a comparator for assessing prices on their own venue. Clearing services providers may use trade venue data (i) to evaluate margin calculation and evaluation of cleared positions and (ii) for collateral management, i.e., for the valuation of securities posted by members as collateral for cleared positions.[2266]

2262 Questions 19-20, 36-37, 66, 81-82, 84.1, 171, Questionnaire 9 to information services end-customers, Doc ID 6480.

2263 Non-Horizontal Merger Guidelines, paragraph 30.

2264 See Table 92 above.

2265 As explained above, a supplier operating a trading venue has a "natural" monopoly over the data generated by this venue (see recitals (437) and (734) above). If Refinitiv needs data from other trading venues as an input for its products in the downstream markets listed in Table 92 above, this data must be purchased today from the supplier operating the trading venue. This will not change post-Transaction.

2266 Clearing houses also require real-time transaction details (i.e. trade feeds) from the venues on which a trade is executed in order to have the necessary trade terms to clear the transaction. The non-horizontal

(1844) The Transaction gives rise to vertically affected markets regarding Tradeweb venue data (upstream) and global, European, and UK equities index licensing, ESG index licensing, multi-asset index licensing, fixed income index licensing, convertible bonds index licensing, money markets index licensing, trading services in cash equities, trading services for cash equities, trading services for equity derivatives, clearing services for cash equities, clearing services for cash bonds, clearing services for repos, and clearing services for financial derivatives (downstream).[2267] In the upstream market for Tradeweb venue data, Tradeweb (controlled by Refinitiv) has a monopoly position. The downstream markets vertically linked with Tradeweb venue data are listed in Table **93** below. Only LSEG is active in the downstream markets for clearing services and for UK equities index licensing. Both Refinitiv and LSEG are active in the downstream market for trading services.

Table 93

Vertical Links involving Tradeweb venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Tradeweb venue data	Refinitiv	[90-100]%	Global Equity index licensing (worldwide)	LSEG	[5-10]%
				Refinitiv	[0-5]%
			European Equity index licensing (worldwide)	LSEG	[10-20]%
				Refinitiv	[0-5]%
			UK Equity index licensing (worldwide)	LSEG	[80-90]%
			ESG index licensing (worldwide)	LSEG	[10-20]%
				Refinitiv	[0-5]%
			Multi-asset index licensing (worldwide)	Refinitiv	[0-5]%
				LSEG	[10-20]%
			Fixed income index licensing (worldwide)	Refinitiv	[0-5]%
				LSEG	[10-20]%
			Convertible bonds index licensing (worldwide)	LSEG	[0-5]%
				Refinitiv	[30-40]%
			Money markets index	Refinitiv	[0-5]%
				LSEG	[20-30]%

link that arises as a result is addressed as one between the upstream market for trading services and the downstream market for clearing services (see Section 4.5.36 below, regarding OTC IRD).

2267 For completeness, the Transaction also technically gives rise to vertical overlaps between the market for Tradeweb venue data (upstream) and the relevant markets for desktop services; non-real time datafeeds; CNRPD; funds data (downstream). However, in all these downstream markets, Refinitiv is already present today and LSEG's presence is limited ([0-5]% market share in 2019). Against this background, the position of the combined entity in these downstream markets would not be meaningfully different from the competitive position of Refinitiv pre-Transaction. Therefore, the Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input foreclosure in these markets, by restricting access to Tradeweb venue data.

Vertical Links involving Tradeweb venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
			licensing (worldwide)		
			Trading services for cash equities – company issued stock (EEA)[2268]	LSEG	[30-40]% (by volume) [20-30]% (by value)
				Refinitiv	[0-5]% (by volume) [0-5]% (by value)
			Trading services for cash equities – ETPs (EEA)[2269]	LSEG	[30-40]% (by volume) [10-20]% (by value)
				Refinitiv	[0-5]% (by volume and by value)
			Trading services for equity derivatives – ETD single stock equity derivatives (EEA)[2270]	LSEG	[0-5]% (by volume) [0-5]% (by value)
			Trading services for equity derivatives – ETD equity index derivatives (EEA)[2271]	LSEG	[0-5]%% (by volume) [0-5]% (by value)
			Clearing services for cash equities (EEA)[2272]	LSEG	[40-50]% (by value) [50-60]% (by volume)
			Clearing services for D2D cash bonds (EEA)[2273]	LSEG	[90-100]% (by value)
			Clearing services for ATS-traded non-triparty repos (EEA)[2274]	LSEG	[90-100]%
			Clearing services for OTC equity derivatives (EEA)[2275]	LSEG	[0-5]% (by number of contracts traded) [5-10]% (by notional volume traded)
			Clearing services for OTC CDS (EEA)[2276]	LSEG	[20-30]%
			Clearing services for OTC IRDs (worldwide)[2277]	LSEG	[70-80]% (by volumes

2268 See Table 71 and Table 72 above.
2269 See Table 70 above.
2270 RFI 13 reply, "M9564_Equity derivatives 2019 update", Tables 14-15.
2271 See Table 36 and Table 37 above.
2272 See Table Table 73 above.
2273 See Table 8 above.
2274 RFI 48 reply, question 1. LSEG's presence in the other segments of repos clearing (namely the CCP clearing of ATS-traded triparty repos and the CCP clearing of non-ATS-traded repos) is minimal, with market shares below [0-5]%.
2275 See Table 69 above.
2276 See Table 67 above.
2277 See Table 42 and Table 43 above.

Vertical Links involving Tradeweb venue data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
					outstanding) [90-100]% (by volumes cleared)

Source: Form CO.

(1845) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table **93** above.

4.5.14.1. Input Foreclosure

A. The Notifying Party's view

(1846) According to the Notifying Party, the combined entity would not have the ability or the incentive to restrict access to Tradeweb venue data to rivals in the downstream markets listed in Table **93** above. According to the Notifying Party, Tradeweb venue data is not an important input for the downstream product markets.[2278]

B. The Commission's assessment

(1847) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table **93** above, by restricting access to Tradeweb venue data.

(1848) According to the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2279] However, Tradeweb venue data are not an important input for any of the downstream markets listed in Table **93** above:

(a) In the Commission's market investigation, informative responses from index providers indicate that direct feeds of venue data are not an important input for the design and licensing of new indices. Direct datafeeds of trading venue real-time data were ranked only 7th out of 8 inputs that index providers need for the design and licensing of new indices (after fundamentals data; earnings data; and securities identifiers).[2280]

(b) Tradeweb venue data are not an important input for trading services for cash equities and for equity derivatives. Tradeweb is not one of the major trading venues for equities and equity derivatives, representing less than [a very small percentage] of the total volumes traded for cash equities and exchange traded products.[2281] In any event, Tradeweb does not provide venue data to other trading venues today, according to the Notifying Party and this does not affect the ability of various players to compete in the downstream markets for trading services for cash equities and for equity derivatives;[2282] and

(c) Tradeweb venue data is also not an essential input for clearing houses as regards the calculation of margins and the management of collateral. For these

2278 Form CO, paragraphs D.619ff, D.636, D.650.
2279 Non-Horizontal Merger Guidelines, paragraph 34.
2280 Question 9, Questionnaire 10 to index providers, Doc ID 6460.
2281 Form CO, paragraph D.636 and Annex 196.
2282 Form CO, paragraph D.636.

purposes, clearing houses often use CRTDs or direct feeds from Tradeweb's competing trading venues.[2283] In the Commission's market investigation, the majority of clearing services competitors indicate that they do not purchase Tradeweb venue data today.[2284]

(1849) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table **93** above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1850) However, as regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in Table **93** above, as a result of an input foreclosure strategy involving Tradeweb venue data.[2285]

(1851) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for global, European, and UK equities index licensing, ESG index licensing, multi-asset index licensing, fixed income index licensing, convertible bonds index licensing, money markets index licensing, trading services in cash equities, trading services for cash equities, trading services for equity derivatives, clearing services for financial derivatives, and clearing services for cash equities, following an input foreclosure strategy involving Tradeweb venue data.

4.5.14.2. Customer Foreclosure

(1852) According to the Non-Horizontal Merger Guidelines, customer foreclosure takes place where a merger is likely to foreclose upstream rivals by restricting access to a sufficient customer base.[2286] The Commission notes that Refinitiv holds a monopoly in the upstream market for Tradeweb venue data.[2287] LSEG can only purchase Tradeweb venue data today from Refinitiv and this will not change post-Transaction.[2288] Thus, there is no scope for customer foreclosure strategies impacting the upstream market, as a result of the proposed Transaction

4.5.15. Non-real time datafeeds (upstream) and Convertible bonds index licensing; Real estate index licencing; Clearing services for Cash Bonds; Clearing services for OTC IRDs; and Clearing services for Cash equities (downstream)

(1853) Index providers may use non-real time datafeeds for reference purposes when designing new indices. Clearing services providers may use a non-real time datafeed to access or download financial information, for example to conduct spot risk analysis or to verify market prices. The Transaction gives rise to vertically affected

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2283 Form CO, paragarph D.650.

2284 Question 4, Questionnaire 16 to general clearing competitors, Doc ID 6466.

2285 Question 37, Questionnaire 10 to index providers, Doc ID 6460; Question 17, Questionnaire 15 to general trading competitors, Doc ID 6465; and Question 18, Questionnaire 16 to general clearing competitors, Doc ID 6466.

2286 Non-Horizontal Merger Guidelines, paragraph 30.

2287 See Table 93 above.

2288 As explained above, a supplier operating a trading venue has a "natural" monopoly over the data generated by this venue (see recitals (437) and (734) above). If LSEG needs data from other trading venues as an input for its products in the downstream markets listed in Table 93 above, this data must be purchased today from the supplier operating the trading venue. This will not change post-Transaction.

markets regarding non-real time datafeeds (upstream) and convertible bonds index licensing; real-time index licensing; clearing services for cash bonds; OTC IRDs; and cash equities (downstream). Upstream, in the market for non-real time datafeeds, both Refinitiv and LSEG are active. The downstream markets vertically linked with non-real time datafeeds are listed in Table **94** below. Only LSEG is active in the downstream markets for clearing services and real estate index licensing. Both Refinitiv and LSEG are active in the downstream market for convertible bonds index licensing.

Table 94

Vertical Links involving non-real time datafeeds upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Non-real time datafeeds (worldwide)[2289]	LSEG	[0-5]%	Convertible bonds index licensing (worldwide)[2290]	LSEG	[0-5]%
				Refinitiv	[30-40]%
			Real estate index licensing (worldwide)[2291]	LSEG	[30-40]%
			Clearing services for OTC IRDs (worldwide)[2292]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for cash equities (EEA)[2293]		[40-50]% (by value) [50-60]% (by volume)
	Refinitiv	[10-20]%	CCP Clearing of D2D-Traded Cash Bonds (EEA)[2294]		[90-100]% (by value)

Source: Form CO.

(1854) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in **Table** 94 above.

4.5.15.1. Input Foreclosure

A. The Notifying Party's view

(1855) According to the Notifying Party, the combined entity would not have the ability to restrict access to non-real time datafeeds to rivals in the downstream markets listed in Table **94** above. According to the Notifying Party, the combined entity would not

2289 In a plausible EEA-wide market for non-real time datafeeds, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2290 In a plausible EEA-wide convertible bond index licensing market, the market share of Refinitiv in 2019 was [30-40]% and of LSEG [0-5]%.

2291 In a plausible EEA-wide real estate index licensing market, the market share of LSEG in 2019 was [20-30]%.

2292 See Table 42 and Table 43 above.

2293 See Table Table 73 above.

2294 RFI 13 reply, "M9564_Cash bonds 2019 update", Table 27.

have market power in the upstream market enabling it to engage in input foreclosure.[2295]

B. The Commission's assessment

(1856) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table **94** above, by restricting access to non-real time datafeeds.

(1857) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2296] In the present case, the combined entity would lack post-Transaction the upstream market power that would enable it to foreclose rivals in the downstream markets listed in **Table** 94 above:

(a) In non-real time datafeeds, the combined entity held a share of [10-20]% worldwide and [10-20]% in the EEA in 2019. Post-Transaction, the combined entity will continue to be constrained by several rivals in non-real time datafeeds, including ICE (with shares of [10-20]% worldwide and [10-20]% in the EEA in 2019); Bloomberg ([10-20]% worldwide and [10-20]% in the EEA); IHS Markit ([5-10]% worldwide and [10-20]% in the EEA); and S&P ([5-10]% worldwide and [0-10]% in the EEA). These players could expand output to supply the non-real time datafeed for any downstream rivals that the combined entity decided to foreclose;

(b) The market investigation results confirm that the combined entity would lack the upstream market power that would enable it to engage in input foreclosure. When asked to identify the largest suppliers of non-real time datafeeds in the EEA, the majority of informative end-customers mentioned Bloomberg as the number one player.[2297] End-customers also identified several other competitors in non-real time datafeeds in the EEA, including ICE, IHS Markit, S&P, SIX, and FactSet;[2298] and

(c) Internal Refinitiv documents suggest that the company faces strong competitive constraints in the market for non-real time datafeeds. In a March 2019 presentation, Refinitiv was shown […]. The same presentation stated: "[Competitor] *is further ahead than Refinitiv in this space (alongside* [competitor]) *given greater investments historically*".[2299]

(1858) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in **Table** 94 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1859) As regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in **Table** 94 above, as a result of an input foreclosure strategy involving non-real time datafeeds.

2295 Form CO, paragraph D.754 with reference to D.673, D.681ff, D.694.
2296 Non-Horizontal Merger Guidelines, paragraph 35.
2297 Question 42, Questionnaire 9 to information services end-customers, Doc ID 6480.
2298 Question 42, Questionnaire 9 to information services end-customers, Doc ID 6480.
2299 [internal document], Doc ID 4794-48326, page 7.

(1860) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for convertible bonds index licensing; real estate index licensing; clearing services in cash equities; clearing services in cash bonds; and clearing services in OTC IRDs, following an input foreclosure strategy involving non-real time datafeeds.

4.5.15.2. Customer Foreclosure

A. The Notifying Party's view

(1861) The Notfiying Party submits that the Transaction cannot give rise to customer foreclosure concerns with respect to the supply of non-real time datafeeds to the downstream markets listed in **Table** 94 above. According to the Notifying Party, index licensing and clearing services represent only a minority usage of non-real time datafeeds. These datafeeds are typically accessed by a much broader selection of customers, in particular large global banks.[2300]

B. The Commission's assessment

(1862) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for non-real time datafeeds from having access to a sufficient customer base for the following reasons:

(a) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for non-real time datafeeds post-merger.[2301] Non-real time datafeeds are used for a wide range of use cases besides clearing services and index licensing. In a presentation prepared exclusively for Refinitiv, Oliver Wyman identified [customers] as the primary users for Refinitiv's non-real time datafeeds.[2302] Post-Transaction, there will remain several purchasers in markets other than the downstream markets in **Table** 94 above, to whom upstream rivals can sell non-real time datafeeds.

(b) LSEG has very high shares in the downstream markets for clearing services listed in **Table** 94 above. However, this is not in itself indicative of market power that would enable the combined entity to engage in customer foreclosure. This is because, despite LSEG's position in these markets for clearing services, the applications of non-real time datafeeds are much broader and cover a large number of use cases in several markets (as explained in recital (1879) above). The total expenditure of LSEG's clearing service providers on non-real time datafeeds represents less than [a very small percentage]5% of the total demand for non-real time datafeeds worldwide in 2018.[2303] In the same vein, the total expenditure of FTSE Russell on non-real time datafeeds represents less than [a very small percentage] of the total demand for non-real time datafeeds worldwide in 2019.[2304] As a result, upstream rivals of the combined entity would continue to have access to the vast majority of the worldwide customer base for non-real time datafeeds, even

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2300 Form CO, paragraph D.756ff.

2301 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2302 [internal document], Doc ID 4991-27246, page 6.

2303 RFI 46 reply, question 14 and Form CO, Information Services, Annex 212.

2304 RFI 47 reply, question 3 and Form CO, Information Services, Annex 212 and RFI 13 reply, M.9564 – IS – List of all plausible product and geographic markets – 2019 update.

if the combined entity engaged in customer foreclosure involving the downstream markets in **Table** 94 above.

(1863) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for non-real time datafeeds, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1864) Nevertheless, as regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on non-real time datafeeds, as a result of a customer foreclosure strategy involving the downstream markets in **Table** 94 above.[2305]

(1865) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on non-real time datafeeds worldwide, following a customer foreclosure strategy in the downstream markets listed in **Table** 94 above.

4.5.16. APA Data (upstream) and CRTDs (downstream)

(1866) APA data products are distributed by data vendors, including CRTDs. The Transaction gives rise to vertically affected markets regarding APA data (upstream) and CRTDs (downstream). Upstream, in the market for APA data, both LSEG and Tradeweb are active. In the downstream market for CRTDs, only Refinitiv is active.

Table 95

Vertical Links involving APA data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
APA Data	LSEG	Not provided by the Notifying Party	CRTDs (worldwide)	Refinitiv	[40-50]%
	Tradeweb				

Source: Form CO.

4.5.16.1. Input foreclosure

A. The Notifying Party's view

(1867) According to the Notifying Party, a theory that the combined entity would seek to foreclose Refinitiv's CRTD rivals by restricting access to APA data is not credible for three reasons. *First*, there is a large number of CRTD end-customers who do not consume APA data. *Second*, APAs generate most of their revenues from the firms who are subject to the trade publication obligation. These firms rely on APAs for wide distribution of their data and thus, any foreclosure strategy would undermine the core of the APA data distribution business of the combined entity. *Third*, APA data distribution is subject to MiFID II obligations. Any input foreclosure conduct would depart from these obligations and thus, result in reputational harm.[2306]

2305 Question 51, Questionnaire 9 to information services end-customers, Doc ID 6480.

2306 Form CO, paragraph D.894.

B. The Commission's assessment

(1868) The Commission considers that post-Transaction, the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 95 above, by restricting access to APA data.

(1869) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2307] In the present case, the combined entity would lack post-Transaction the upstream market power that would enable it to foreclose rivals in the downstream market for CRTDs.

(1870) In the upstream market for APA data, the combined entity will face several competitors authorised by regulators. Based on the ESMA register, there are 25 authorised APAs in the EEA, including 6 authorised by the FCA.[2308] In addition to LSE's TradEcho and Tradeweb, the UK-based APA data providers include CBOE; Bloomberg; Abide Financial (owned by CME); and Trax (owned by MarketAxess).[2309] The results of the market investigation confirm this. 77% of end-customer respondents state that the upstream market for APA data is "*competitive*", namely, there is "*a sufficient number of suppliers and prices/conditions are determined in a competitive process*".[2310]

(1871) As the Commission finds that the combined entity would have no ability to foreclose competitors in the market for CRTDs, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1872) Nevertheless, the Commission considers that the combined entity would not have the incentive to foreclose its downstream rivals in CRTDs, by restricting access to the APA data. The core commercial proposition of the Parties when disseminating APA data is to help issuers comply with the trade publication requirements under MiFID II. All of LSEG's and [a high percentage] of Tradeweb's revenues in this market come from issuers – not from data vendor distribution.[2311] An input foreclosure strategy limiting dissemination of APA data only to Refinitiv would undermine the very essence of the Parties' offering in the upstream market.

(1873) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for CRTD, following an input foreclosure strategy involving APA data.

2307 Non-Horizontal Merger Guidelines, paragraph 35.

2308 See https://registers.esma.europa.eu/publication/ (last accessed on 26 November 2020).

2309 See https://registers.esma.europa.eu/publication (last accessed on 14 October 2020). The Notifying Party has not been able to estimate the market share of the combined entity in APA data post-Transaction.

2310 Question 49, Questionnaire 14 to general trading customers, Doc ID 6464. Moreover, 90% of informative trading customers expect that the proposed Transaction would have a neutral or positive impact on the market for APA data (Question 49.2, Questionnaire 14 to general trading customers, Doc ID 6464).

2311 Form CO, paragraphs D.149 and D.891.

4.5.16.2. Customer foreclosure

A. The Notifying Party's view

(1874) The Notifying Party submits that there is no prospect that the Transaction could lead to the foreclosure of rival providers of APA data by restricting their access to the combined entity's demand. According to the Notifying Party, the fact that APA data is produced and made available pursuant to a regulatory obligation means that this data would continue to be generated and published regardless of whether the combined entity would act as a distributor for the data.[2312]

B. The Commission's assessment

(1875) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for APA data from access to a sufficient customer base. The Commission takes into account the existence of different routes to the market for the upstream product. These can ensure that a sufficiently large customer base remains for that product post-merger.[2313]

(1876) Post-Transaction, APA data will not only be distributed through CRTDs but also through desktop services; non-real time datafeeds; and consolidated non-real time pricing and reference data. While the combined entity would be dominant in the downstream market for CRTDs, its share would be below [20-30]% in desktop services; non-real time datafeeds; and consolidated non-real time pricing and reference data.[2314] In these markets, there will remain several players, to whom upstream rivals can sell APA data.

(1877) As the Commission finds that the combined entity would have no ability to foreclose rivals in the upstream market for APA data, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1878) Nevertheless, the Commission considers that the combined entity would not have the incentive to foreclose its upstream rivals in APA data, by restricting access to the downstream market for CRTDs. As explained in Section 4.5.1.2 above, "*data coverage*" is the most important parameter that end-customers take into account when selecting CRTDs.[2315] Thus, CRTDs are more attractive for end-customers, when they can offer the widest possible coverage for each type of financial data.[2316] This indicates that the combined entity does not have the incentive to reduce the APA data it sources from different upstream operators. This could undermine the attractiveness of its CRTD products.

(1879) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for APA data. In the market investigation, approximately 90% of informative

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2312 Form CO, paragraph D.895.

2313 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2314 See for example Table 96 below. The 2019 total market size (in terms of revenues) of the worldwide market for CRTDs is EUR [...]. This is significantly lower than the 2019 total market size (in terms of revenues) of the worldwide market for desktop services (EUR [...]); the worldwide market for non-real time datafeeds (EUR [...]); and the worldwide market for CNPRDs (EUR [...]).

2315 Question 24, Questionnaire 9 to information services end-customers, Doc ID 6480.

2316 Internal Refinitiv presentations identify the […] (see [internal document], November 2018, Doc ID 4991-28693, page 40 and Form CO, Information Services, Annex 287 – Document 13, page 15).

end-customers take the view that the Transaction would have a neutral or even positive impact on the market for APA data.[2317]

(1880) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on the upstream market for APA data, following a customer foreclosure strategy in the market for CRTDs.

4.5.17. Regulatory information services (upstream) and desktop services; non-real time datafeeds; news; funds data; ownership content data; public filings (downstream)

(1881) Information providers offer regulatory information services ("RIS") by which they disseminate the full text of regulatory announcements (e.g., by listed companies) to the public. RIS is then offered by data vendors as part of their products. Against this background, the Transaction gives rise to vertically affected markets regarding RIS (upstream) and desktop services; non-real time datafeeds; news; funds data; ownership content data; public filings (downstream).[2318] Upstream, in the market for RIS, only LSEG is active offering its product RNS. The downstream markets vertically linked with non-real time datafeeds are listed in Table 96 below. Both Refinitiv and LSEG are active in the downstream markets for desktop services; non-real time datafeeds; news; funds data; ownership content data; public filings.

Table 96

Vertical Links involving Regulatory Information Services upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Regulatory Information Services (UK)	LSEG	[70-80]%	Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Non-real time datafeeds (worldwide) [2319]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			News (worldwide)	LSEG	Not provided by the Notifying Party
				Refinitiv	
			Funds data (worldwide)[2320]	LSEG	[0-5]%

2317 Question 49.2, Questionnaire 14 to general trading customers, Doc ID 6464.

2318 For completeness, the Transaction also technically gives rise to vertical overlaps between the market for Regulatory Information Services in the UK (upstream) and the relevant market for company events (downstream). However, in this downstream market, LSEG is already present today and Refinitiv's presence is limited ([0-5]% market share in 2019). The Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input or customer foreclosure in these markets.

2319 In a plausible EEA-wide market for non-real time datafeeds, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2320 In a plausible EEA-wide market for funds data, the market share of Refinitiv in 2019 was [0-5]% and of LSEG [0-5]%.

Vertical Links involving Regulatory Information Services upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
				Refinitiv	[5-10]%
			Ownership content data (worldwide)[2321]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Public filings (worldwide)[2322]	LSEG	[10-20]-[20-30]%
				Refinitiv	[0-5]%

Source: Form CO.

(1882) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table 96 above.

4.5.17.1. Input foreclosure

A. The Notifying Party's view

(1883) The Notifying Party submits the proposed Transaction would not give rise to input foreclosure concerns involving RIS (upstream) and the markets listed in Table 96 above (downstream). *First*, according to the Notifying Party, there is no credible commercial rationale for the combined entity to pursue an input foreclosure strategy involving RIS. Such a strategy would undermine RNS's core commercial proposition, which is the dissemination of market-sensitive announcements to investors. *Second*, an input foreclosure strategy would not have an impact on competition in the downstream market because in case of foreclosure, customers would retain their current provider and simply add a Refinitiv product.[2323]

B. The Commission's assessment

(1884) The Commission considers that it is unclear whether the combined entity would be able to foreclose its rivals in the downstream markets listed in Table 96 above, by restricting access to RIS.

(1885) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2324]

(1886) In this respect, the Commission notes that in 2019, LSEG had a very high share of [70-80]% in a plausible market for RIS concerning UK regulatory press releases. LSEG's market share was comparable in 2017 and 2018.[2325]

2321 In a plausible EEA-wide market for ownership content data, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2322 In a plausible EEA-wide market for public filings, the market share of Refinitiv in 2019 was [10-30]% and of LSEG [0-5]%.

2323 Form CO, paragraph D.884.

2324 Non-Horizontal Merger Guidelines, paragraph 35.

2325 Form CO, Information Services, Table 99.

(1887) However, the Commission also notes that in a plausible market for RIS concerning UK regulatory press releases, LSEG is facing competition from four competitors who have been approved by the FCA as PIPs and are authorised to offer RIS. These include EQS; PR Newswire; Business Wire; and GlobNewswire. Each of these players are RIS providers with global presence, unlike LSEG, which is only active in the UK.[2326] On a worldwide basis, in 2018, PR Newswire had 75,000 clients and EQS had 8,000 clients, while LSEG only had approximately […] (mostly UK-based) clients.

(1888) Internal LSEG documents suggest that despite its high market share, RNS is constrained by its rivals in the UK and beyond. In an internal presentation updated on 27 May 2020, LSEG listed […] among the challenges facing RNS today.[2327] In an earlier presentation of 11 July 2018, LSEG explained: [description of competitive analysis].[2328] In an internal email of 29 January 2018, [employee] noted: [description of commercial strategy].[2329]

(1889) The results of the market investigation does not provide conclusive evidence as to whether the combined entity could negatively affect the overall availability of inputs by reducing access to its RIS product. 50% of end-customers providing informative responses to the market investigation acknowledge that there are sufficient alternatives that end-customers in the UK or in the EEA use or could use to replace RNS. 25% submitted that this is not the case and 25% consider that this is "*not yet*" the case.[2330] Moreover, more than 70% of informative end-customers submit that they license RIS by comparing offers on a worldwide basis and that RIS providers compete on a worldwide basis.[2331]

(1890) Regardless of the assessment of the combined entity's ability to engage in input foreclosure involving RIS, the Commission considers that the combined entity would not have the incentive to foreclose its downstream rivals in the markets listed in Table 96 above. The core commercial proposition of LSEG when offering RIS is to assure issuers that they will meet their regulatory obligations to communicate market-sensitive announcements to investors in line with the Transparency Directive.[2332] [a high percentage] of LSEG's RNS revenues come from issuers – not from data vendor distribution.[2333] An input foreclosure strategy limiting dissemination of RNS only to Refinitiv would undermine the very essence of the Parties' offering in the upstream market.

2326 EQS has a global presence (see reply to Question 5, Questionnaire 12 to regulatory information services competitors, Doc ID 6462). PR Newswire has a global reach to more than 170 countries (see https://prnewswire.mediaroom.com/). Business Wire provides RIS in a number of countries around the world, including in the US, Canada, Germany, France, Denmark, the Netherlands, Sweden, and Switzerland and GlobeNewswire offers RIS in the US, Canada, and Europe (see Form CO, paragraph D.880).

2327 [internal document], Doc ID 4699-28883, page 24.

2328 [internal document], Doc ID 4696-66802, page 3.

2329 [internal document], Doc ID 4695-45852.

2330 Question 162, Questionnaire 9 to information services end-customers, Doc ID 6480.

2331 Question 163, Questionnaire 9 to information services end-customers, Doc ID 6480.

2332 Directive 2004/109/EC of the European Parliament and of the Council of 15 December 2004 on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EC, OJ L 390, 31.12.2004, p. 38–57.

2333 Form CO, Information Services, footnote 527.

(1891) As regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in Table 96 above, as a result of an input foreclosure strategy involving RIS.

(1892) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that it is unlikely that the Transaction would significantly impede effective competition in the downstream markets for desktop services; non-real time datafeeds; news; funds data; ownership content data; public filings, following an input foreclosure strategy involving RIS.

4.5.17.2. Customer foreclosure

A. The Notifying Party's view

(1893) The Notifying Party submits that there is no prospect that the Transaction could lead to the foreclosure of rival RIS providers by restricting their access to the combined entity's demand. RIS providers ensure that their content is distributed via the widest possible set of channels. Their reliance on any one individual channel is thus limited.

B. The Commission's assessment

(1894) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for RIS from having access to a sufficiently large customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of RIS for the following reasons:

(a) Refinitiv is only one of the many data vendors through which RIS is offered. For example, LSEG's RNS is distributed through […] same-day licensed distributors and Refinitiv is only one of them.[2334] As such, the upstream rivals will continue to have access to several data vendors post-Transaction, even if the combined entity engaged in customer foreclosure.

(b) Even looking narrowly into the downstream markets listed in Table 96 above, the combined entity does not appear to be an important customer. Post-Transaction, its share would not exceed [20-30]% in any of these markets (and is generally considerably lower).[2335] In each of these markets, the combined entity will face competitive constraints from established rivals.[2336] These players will likely constitute a significant customer base for upstream rivals going forward.

2334 Form CO, Information Services, Table 100.

2335 With the exception of financial news for which the Notifying Party was not able to estimate market shares. Regarding this market, the Notifying Party submitted that LSEG and Refinitiv face competition from strong players, such as Bloomberg, FactSet, and S&P (see Form CO, paragraph D.372).

2336 Namely, Bloomberg, FactSet, S&P, and other smaller rivals (in desktop services); ICE, IHS Markit, Bloomberg, S&P Global, and SIX (in non-real time datafeeds); Bloomberg, FactSet, and S&P (in financial news); Morningstar, HG Capital, Nasdaq, Kneip (Lux), ISS (in funds data); Bloomberg, IHS Markit, FactSet, and S&P (in ownership content data); Bloomberg, FactSet, S&P, ICE, and SIX (in public filings), and Bloomberg, FactSet, and S&P (in company events). See RFI 13 reply, M.9564 – IS – List of all plausible product and geographic markets – 2019 update and Form CO, paragraphs D.371 and D.395.

(1895) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for RIS, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1896) Nevertheless, the Commission considers that the combined entity would not have the incentive to foreclose its upstream rivals in RIS, by restricting access to the downstream markets listed in Table 96 above. The products in the downstream markets are more attractive for end-customers, when they can offer wide data coverage and rich/varied content. This indicates that the combined entity does not have the incentive to reduce the variety of content it purchases from different upstream operators. This could undermine the attractiveness of its solutions in the downstream markets.

(1897) As regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the market for RIS, as a result of a customer foreclosure strategy involving the downstream markets in Table 96 above. Rather, 84% of informative respondents take the view that the Transaction would have a neutral or even positive impact on the upstream market.[2337]

(1898) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on the market for RIS, following a customer foreclosure strategy in the downstream markets listed in Table 96 above.

4.5.18. Sector classification schemes (upstream) and CRTDs and convertible bond index licensing (downstream)

(1899) Sector classification schemes allow users to categorise and compare companies by industries and by sector. Among other use cases, sector classification schemes are used as an input for the design and development of indices. Sector classification schemes can be licensed directly to end-customers or accessed as part of data vendor products, e.g., CRTDs. Against this background, the Transaction gives rise to vertically affected markets regarding sector classification schemes (upstream) and convertible bonds index licensing and CRTDs (downstream). Upstream, in the market for sector classification schemes, both Refinitiv and LSEG are active. Only LSEG is active in the downstream market for CRTDs. Both Refinitiv and LSEG are active in the downstream market for convertible bonds index licensing.

[2337] Question 170, Questionnaire 9 to information services end-customers, Doc ID 6480.

Table 97

Vertical Links involving sector classification schemes upstream					
Upstream market	**Party/Parties active**	**Market share (2019)[2338]**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Sector classification schemes (worldwide)	LSEG	Not provided by the Notifying Party	Convertible bonds index licensing (worldwide)[2339]	LSEG	[0-5]%
	Refinitiv			Refinitiv	[30-40]%
			CRTDs (worldwide)	Refinitiv	[40-50]%

Source: Form CO and [internal document], Doc ID 4189-28529.

(1900) The remainder of this Section examines together the vertical links between the upstream market and the different downstream markets listed in Table 97 above.

4.5.18.1. Input foreclosure

A. The Notifying Party's view

(1901) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to sector classification schemes to rivals in the downstream markets listed in Table 97 above. According to the Notifying Party, the combined entity would not have the ability to foreclose downstream rivals because there are several alternatives to the sector classification schemes of the Parties, which hold a combined share of [30-40]% or less.[2340] Nor is there incentive to foreclose downstream rivals in the markets listed in Table 97 above. The Notifying Party submits that any input foreclosure would trigger regulatory scrutiny and reputational harm among end-customers.[2341]

B. The Commission's assessment

(1902) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 97 above, by restricting access to sector classification schemes.

(1903) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2342] In the present case, the combined entity would lack post-Transaction the upstream market power that would enable it to foreclose rivals in the downstream markets listed in Table 97 above. For the reasons explained below, several competitors will remain in the upstream market who could supply sector classification schemes in case the combined entity engaged in input foreclosure:

(a) In the upstream market for sector classification schemes, the Parties face strong competitive constraints by several players. In an internal presentation titled [internal document] dated March 2018, FTSE Russell estimated its own market

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2338 In the Form CO, the Notifying Party submitted that it is not possible to provide market shares for a hypothetical market of sector classification schemes due to the complementarity of the classification schemes and the difficulty to reliably define the size of the market.

2339 In a plausible EEA-wide convertible bond index licensing market, the market share of Refinitiv in 2019 was [30-40]% and of LSEG [0-5]%.

2340 Form CO, paragraphs D.842 and 870.

2341 Form CO, paragraphs D.839ff.

2342 Non-Horizontal Merger Guidelines, paragraph 35.

share in sector classification schemes at approximately [5-10]% in 2017 and Refinitiv's market share at [5-10]%.[2343] In the same presentation, FTSE Russell explained that it faces strong competition by the leading sector classification scheme, GICS, which is owned by MSCI and S&P. In 2017, GICS' market share was estimated at [60-70]%.[2344] According to the Notifying Party, this has increased today to [70-80]% or more.[2345] In addition to GICS, LSEG and Refinitiv face competition in sector classification schemes by NACE (managed by Eurostat) and NAICS (the North American Industry Classification System, managed by the NAICS Association).

(b) LSEG, Refinitiv, GICS, NACE, and NICS also face competition from rivals who combine traditional sector data with additional data points (e.g., supply chain or machine learning data) to generate deeper thematic insights. A FTSE Russell internal presentation confirmed this. This presentation, titled [internal document] and dated [month and year] stated: "[description of competitive assessment]" and added: "[description of competitive assessment]".[2346] The Notifying Pafty explained that [further details of competitive assessment].[2347]

(1904) As the Commission finds that the combined entity would have no ability to foreclose competitors in the market for CRTDs or in the market for convertible bonds indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.[2348]

(1905) As regards impact, the Commission notes that in the market investigation, respondents did not raise substantiated concerns that the Transaction would have a negative impact on the downstream markets listed in Table 97 above, as a result of an input foreclosure strategy involving sector classification schemes.

(1906) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for CRTD and convertible bonds index licensing, following an input foreclosure strategy involving sector classification schemes.

4.5.18.2. Customer foreclosure

A. The Notifying Party's view

(1907) The Notifying Party submits that it is unlikely that the combined entity would foreclose upstream rivals by leveraging its position in the downstream markets for CRTDs and convertible bond index licensing. As regards CRTDs, the Notifying Party recalls that this is one of the many channels through which sector classification schemes are distributed.[2349] As regards the downstream market for convertible bonds index licensing, the Notifying Party indicates that use cases for sector classification schemes are far more extensive than index licensing.[2350]

2343 [internal document], March 2018, Doc ID 4189-28529, page 5. The same market shares were included in

2344 [internal document], March 2018, Doc ID 4189-28529, page 5.

2345 Form CO, paragraph D.425.

2346 [internal document], Doc ID 4189-8444, page 3.

2347 RFI 46 reply, question 16.

2348 The Commission notes, however, that the market investigation did not provide evidence supporting the arguments of the Notifying Party regarding input foreclosure of APA data.

2349 Form CO, paragraphs D.845ff.

2350 Form CO, paragraph D.873.

B. The Commission's assessment

(1908) The Commission considers that post-Transaction, the combined entity would not have the ability to prevent its rivals in the market for sector classification schemes from access to a sufficient customer base. The Commission takes into account the existence of different routes to the market for the upstream product. These can ensure that a sufficiently large customer base remains for that product post-merger:[2351]

(a) Post-Transaction, sector classification schemes will not only be distributed through CRTDs but also through desktop services; non-real time datafeeds; and consolidated non-real time pricing and reference data. While the combined entity would be dominant in the downstream market for CRTDs, its share would remain below [20-30]% in desktop services; non-real time datafeeds; and consolidated non-real time pricing and reference data.[2352] In these markets, there will remain several players, to whom upstream rivals can sell sector classification schemes.

(b) Sector classification schemes are used as an input for the design of many different types of indices. Convertible bond indices is only one of them. Sector classification schemes are also used in equities indices, fixed income indices, and ESG indices. While the combined entity would be have a share exceeding [30-40]% in the narrow downstream market for convertible bond index licensing, its share would be below [20-30]% in the broader index licensing space.[2353] Post-Transaction, there would remain several index providers, to whom upstream rivals can sell sector classification schemes, if the combined entity were to engage in a customer foreclosure strategy.

(c) In any event, index design is only one of the many use cases for sector classification schemes. In 2017, index providers represented only [a small percentage] of LSEG's total sales and less than [a small percentage] of Refinitiv's total sales in the upstream market. For example, sector classification schemes are also licensed to sell-side and buy-side customers and to research institutions.[2354]

(1909) As the Commission finds that the combined entity would have no ability to foreclose rivals in the upstream market for sector classification schemes, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1910) Nevertheless, as regards impact, the Commission notes that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for sector classification schemes. In the market investigation, 63% of informative end-customers take the view that the Transaction would have a neutral or even positive impact on the market for sector classification schemes.[2355]

(1911) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission

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2351 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2352 See for example Table 96 below. The 2019 total market size (in terms of revenues) of the worldwide market for CRTDs is EUR [...]. This is significantly lower than the 2019 total market size (in terms of revenues) of the worldwide market for desktop services (EUR [...]); the worldwide market for non-real time datafeeds (EUR [...]); and the worldwide market for CNPRDs (EUR [...]).

2353 Form CO, paragraph D.873(a).

2354 See [internal document], Doc ID 4189-8444, page 9.

2355 Question 84.1, Questionnaire 9 to information services end-customers, Doc ID 6480.

concludes that the Transaction would not significantly impede effective competition on the upstream market for sector classification schemes, following a customer foreclosure strategy in the markets for CRTDs or convertible bonds index licensing.

4.5.19. Convertible bonds indices (upstream) and consolidated non-real time pricing and reference data; Desktop services; Non real-time datafeeds; Tick History; and CRTDs (downstream)

(1912) The Transaction gives rise to vertically affected markets regarding convertible bonds indices (upstream) and consolidated non-real time pricing and reference data, tick history, CRTDs, desktop services, and non real-time datafeeds (downstream). Upstream, Refinitiv is active and LSEG has a *de minimis* market share. In the downstream markets vertically linked with convertible bonds indices, listed in **Table 98** below, only Refinitiv is active in tick history data and CRTDs. LSEG and Refinitiv are active in CNRPDs; desktop services; and non-real time datafeeds.

Table 98

Vertical Links involving Convertible bonds indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Convertible bonds indices (worldwide)	LSEG	[0-5]%	Consolidated non-real time pricing and reference data (worldwide)[2356]	LSEG	[0-5]%
				Refinitiv	[10-20]%
	Refinitiv	[30-40]%	Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Non real-time datafeeds (worldwide)[2357]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Tick history (worldwide)[2358]	Refinitiv	[30-40]%
			CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1913) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in **Table 98** above.

4.5.19.1. Input foreclosure

A. The Notifying Party's view

(1914) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to convertible bonds indices to rivals in the downstream markets listed in **Table 98** above. The Notifying Party submits that since FTSE Russell has a *de minimis* presence upstream and downstream, the

2356 In a plausible EEA-wide market for consolidated non-real price and reference data, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2357 In a plausible EEA-wide market for non-real time datafeeds, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2358 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

Transaction will have limited incremental effect on the degree of vertical integration and thus the pre-existing ability or incentive for input foreclosure.[2359]

B. The Commission's assessment

(1915) The Commission considers that the vertical link between convertible bonds indices and these downstream markets is pre-existing, as Refinitiv is active both upstream and downstream, while LSEG is only active upstream and downstream in three markets, both with a *de minimis* share. Thus, as argued by the Notifying Party, the Commission considers that the ability or incentive of the combined entity will not change significantly as a result of the Transaction.

(1916) As regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table **98**. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for Consolidated non-real time pricing and reference data; Tick history; CRTDs; Desktop services; and Non real-time datafeeds as a result of input foreclosure involving convertible bonds indices.[2360]

(1917) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for CNRPDs; Tick history; CRTDs; Desktop services; and Non real-time datafeeds following an input foreclosure strategy involving convertible bond indices.

4.5.19.2. Customer foreclosure

A. The Notifying Party's view

(1918) The Notifying Party submits that since FTSE Russell has a *de minimis* presence upstream and downstream, the Transaction will have limited incremental effect on the degree of vertical integration and thus the pre-existing ability and incentive for customer foreclosure.[2361]

B. The Commission's assessment

(1919) The Commission considers that the vertical link between convertible bonds indices and the downstream markets is pre-existing, as Refinitiv is active both upstream and downstream, while LSEG is only active with a *de minimis* share in the upstream and downstream markets. Thus, as argued by the Notifying Party, the Commission considers that the ability or incentive of the combined entity will not change significantly as a result of the Transaction.

(1920) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for convertible bonds indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative

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2359 Form CO, paragraphs D.899.

2360 See, for instance, responses to Questions 20, 37, 52, 67, 82, and 101 in Questionnaire 9 to information services end-customers, Doc ID 6480.

2361 Form CO, paragraphs D.899.

impact on the markets for convertible bonds indices as a result of customer foreclosure in the abovementioned downstream markets.[2362]

(1921) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in convertible bonds indices, following a customer foreclosure strategy in the downstream markets listed in Table **98** above.

4.5.20. Real estate indices (upstream) and consolidated non-real time pricing and reference data; Desktop services; Non real-time datafeeds; tick history; CRTDs (downstream)

(1922) The Transaction gives rise to vertically affected markets regarding real estate indices (upstream) and consolidated non-real time pricing and reference data, tick history, CRTDs, desktop services, and non real-time datafeeds (downstream). Upstream, LSEG is active through FTSE Russell. In the downstream markets vertically linked with real estate indices, listed in Table 99 below, only Refinitiv is active in tick history data and CRTDs. LSEG and Refinitiv are active in CNRPDs; desktop services; and non-real time datafeeds.

Table 99

Vertical Links involving Real estate indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Real estate indices (worldwide)	LSEG	[30-40]%	Consolidated non-real time pricing and reference data(worldwide)[2363]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Non real-time datafeeds (worldwide)[2364]	LSEG	[0-5]%
				Refinitiv	[10-20]%
			Tick history (worldwide)[2365]	Refinitiv	[30-40]%
			CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1923) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 99 above.

4.5.20.1. Input foreclosure

A. The Notifying Party's view

(1924) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to real estate indices to rivals in the downstream

2362 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

2363 In a plausible EEA-wide market for consolidated non-real price and reference data, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2364 In a plausible EEA-wide market for non-real time datafeeds, the market share of Refinitiv in 2019 was [10-20]% and of LSEG [0-5]%.

2365 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

markets listed in Table 99 above.[2366] *First*, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1925) *Second*, with regard to non-real time datafeeds and consolidated non-real time pricing and reference data, even if the merged entity were to refuse access to FTSE Russell indices to rival providers, the Notifying Party argues that it is highly unlikely that rival providers such as Bloomberg, ICE, IHS Markit, FactSet or S&P Global would be marginalised or excluded. This is because with respect to users of non-real-time datafeeds (including consolidated non-real-time pricing and reference data) that use FTSE Russell indices and who cannot easily substitute to other indices, very few would be likely to drop their current providers and to switch all or the bulk of their purchases of non-real-time products to Refinitiv's product offerings. In the Parties' experience, many customers of non-real-time datafeeds (particularly larger customers) multi-source, primarily because of differences in the scope and/or quality of coverage. Because there are costs associated with switching from one provider to another for a large number of datafeeds, it is highly unlikely that a customer who accessed FTSE Russell indices from a rival non-real-time feed provider would replace that provider for all the feeds obtained from that provider.

(1926) *Third*, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product, and in any case nearly all large customers of CRTDs already mult-source their requirements.

(1927) With regard to desktop services downstream, the Notifying Party argues that a foreclosure strategy would not have the effect of marginalising or excluding Bloomberg, Refinitiv's largest competitor in desktops. Given Bloomberg's leading position in the asset management and wealth segments, and since functionalities available on Bloomberg's platform are not available – or not of the same quality or competitiveness of offering – within Refinitiv's desktop applications, only a small percentage of Bloomberg terminal users could be expected to replace their Bloomberg terminals with Refinitiv's Eikon desktop, even if index data were no longer available through Bloomberg terminals.

B. The Commission's assessment

(1928) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 99 above, by restricting access to real estate indices.

(1929) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2367] In the present case, however, the combined entity held a share

2366 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001.

2367 Non-Horizontal Merger Guidelines, paragraph 35.

of [30-40]% worldwide in real estate indices in 2019. Post-Transaction, MSCI, S&P (with market shares of [10-20]%, [10-20]% respectively) and a number of other smaller rivals will remain in the upstream market, and the Commission has no indication that the combined entity's indices constitute a relatively more important input in the downstream markets than indicated by its market share.

(1930) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 99 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1931) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 99. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for consolidated non-real time pricing and reference data, desktop services, CRTDs, tick history, and non real-time datafeeds as a result of input foreclosure involving real estate indices.[2368]

(1932) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for consolidated non-real time pricing and reference data, desktop services, CRTDs, tick history, non real-time datafeeds following an input foreclosure strategy involving real estate indices.

4.5.20.2. Customer foreclosure

A. The Notifying Party's view

(1933) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate to low in desktop services, consolidated non-real-time pricing and reference data, and non-real-time datafeeds services. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2369]

B. The Commission's assessment

(1934) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for real estate indices from having access to a sufficient customer base for the following reasons:

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with higher or similar market shares to the combined entity will remain in each of the downstream markets.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for real estate indices post-merger.[2370] Real estate index providers can distribute their data to their customers through many means, including direct supply, real-time

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2368 See, for instance, responses to Questions 20, 37, 52, 67, 82, and 101, Questionnaire 9 to information services end-customers.

2369 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005.

2370 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(1935) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for real estate indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure..

(1936) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for real estate indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for real estate indices as a result of customer foreclosure in the abovementioned downstream markets.[2371]

(1937) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in real estate indices, following a customer foreclosure strategy in the downstream markets listed in Table 99 above.

4.5.21. European equity indices (upstream) and tick history and CRTDs (downstream)

(1938) The Transaction gives rise to vertically affected markets regarding European equity indices (upstream) and tick history and CRTDs (downstream). [2372] Upstream, LSEG is active through FTSE Russell and Refinitiv has a *de minimis* presence. In the downstream markets vertically linked with Global equity indices, listed in Table 100 below, only Refinitiv is active.

2371 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

2372 For completeness, the Transaction also technically gives rise to vertical overlaps between the market for European equity indices (upstream) and the relevant markets for trading services for equity derivatives downstream. However, in all these downstream markets, LSEG is already present today and Refinitiv's presence is limited (market share of [0-5]% in 2019). The Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input or customer foreclosure in these markets.

Table 100

Vertical Links involving European equity indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
European equity indices (worldwide)	LSEG	[10-20]%	Tick history (worldwide)[2373]	Refinitiv	[30-40]%
	Refinitiv	[0-5]%	CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1939) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 100 above.

4.5.21.1. Input foreclosure

A. The Notifying Party's view

(1940) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to European equity indices to rivals in the downstream markets listed in Table 100 above.[2374] First, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1941) *Second*, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product, and in any case nearly all large customers of CRTDs already mult-source their requirements.

B. The Commission's assessment

(1942) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 100 above, by restricting access to European equity indices.

(1943) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2375] In the present case, however, the combined entity held a share of [10-20]% worldwide in European equity indices in 2019. Post-Transaction, MSCI, STOXX (with market shares of [40-50]%, [10-20]% respectively) and a number of other smaller rivals will remain in the upstream market, indicating the absence of the combined entity's market power.

2373 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was 42-49%.

2374 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001, D.1020-D.1022.

2375 Non-Horizontal Merger Guidelines, paragraph 35.

(1944) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 100 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1945) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 100. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving Europen equity indices. [2376]

(1946) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history and CRTDs, following an input foreclosure strategy involving European equity indices.

4.5.21.2. Customer foreclosure

A. The Notifying Party's view

(1947) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate in tick history and CRTDs. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2377]

B. The Commission's assessment

(1948) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for European equity indices from having access to a sufficient customer base for the following reasons:

(a) As stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) The existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for European equity indices post-merger.[2378] European equity index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(1949) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for European equity indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on

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2376 See, for instance, responses to Question 52, Questionnaire 14 to general trading and clearing customers, Doc ID 6464 and Questions 37, 67, and 101, Questionnaire 9 to information services end-customers, Doc ID 6480.

2377 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005, D.1023-D.1024.

2378 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

competition. Nevertheless, given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure..

(1950) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for European equity indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for European equity indices as a result of customer foreclosure in the abovementioned downstream markets.[2379]

(1951) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in European equity indices, following a customer foreclosure strategy in the downstream markets listed in Table 100 above.

4.5.22. Global equity indices (upstream) and tick history and CRTDs (downstream)

(1952) The Transaction gives rise to vertically affected markets regarding Global equity indices (upstream) and tick history, and CRTDs (downstream).[2380] Upstream, LSEG is active through FTSE Russell and Refinitiv has a *de minimis* presence. In the downstream markets vertically linked with Global equity indices, listed in Table 101 below only Refinitiv is active.

Table 101

Vertical Links involving Global equity indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Global equity indices (worldwide)	LSEG	[10-20]%	Tick history (worldwide)[2381]	Refinitiv	[30-40]%
	Refinitiv	[0-5]%	CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1953) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 101 above.

2379 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

2380 For completeness, the Transaction also technically gives rise to vertical overlaps between the market for Global equity indices (upstream) and the relevant markets for trading services for equity derivatives downstream. However, in all these downstream markets, LSEG is already present today and Refinitiv's presence is *de minimis* ([0-5]% market share in 2019). The Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input or customer foreclosure in these markets.

2381 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

4.5.22.1. Input foreclosure

A. The Notifying Party's view

(1954) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to Global equity indices to rivals in the downstream markets listed in Table 101 above.[2382] *First*, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1955) *Second*, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product, and in any case nearly all large customers of CRTDs already mult-source their requirements.

B. The Commission's assessment

(1956) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 101 above, by restricting access to Global equity indices.

(1957) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2383] In the present case, however, the combined entity held a share of [10-20]% worldwide in Global equity indices in 2019. Post-Transaction, the current market leader MSCI (with a market share of [70-80]%) and a large number of other smaller rivals will remain in the upstream market, with the presence of this much stronger competitor indicating the absence of the combined entity's market power.

(1958) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 101 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1959) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 101. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving Global equity indices.[2384]

2382 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001, D.1020-D.1022.

2383 Non-Horizontal Merger Guidelines, paragraph 35.

2384 See, for instance, responses to question 52, Questionnaire 14 to general trading and clearing customers, Doc ID 6464, and Questions 37, 67, and 101 in Questionnaire 9 to information services end-customers, Doc ID 6480.

(1960) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history and CRTDs, following an input foreclosure strategy involving Global equity indices.

4.5.22.2. Customer foreclosure

A. The Notifying Party's view

(1961) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate in tick history and CRTDs. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2385]

B. The Commission's assessment

(1962) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for Global equity indices from having access to a sufficient customer base for the following reasons:

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for European equity indices post-merger.[2386] Global equity index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(1963) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for Global equity indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure..

(1964) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for Global equity indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative

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2385 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005, D.1023-D.1024.

2386 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

impact on the markets for Global equity indices as a result of customer foreclosure in the abovementioned downstream markets.[2387]

(1965) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in Global equity indices, following a customer foreclosure strategy in the downstream markets listed in Table 101 above.

4.5.23. Money Market indices (upstream) and tick history and CRTDs (downstream)

(1966) The Transaction gives rise to vertically affected markets regarding Money Market indices (upstream) and tick history and CRTDs (downstream). Upstream, LSEG is active through FTSE Russell and Refinitiv has a *de minimis* presence. In the downstream markets vertically linked with Money Market indices, listed in Table **102** below only Refinitiv is active.

Table 102

Vertical Links involving Money Market indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Money Market indices (worldwide)	LSEG	[20-30]%	Tick history (worldwide)[2388]	Refinitiv	[30-40]%
	Refinitiv	[0-5]%	CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1967) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 102 above.

4.5.23.1. Input foreclosure

A. The Notifying Party's view

(1968) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to Money Market indices to rivals in the downstream markets listed in Table **102** above.[2389] *First*, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1969) Second, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a

2387 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.
2388 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.
2389 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001.

Refinitiv product, and in any case nearly all large customers of CRTDs already mult-source their requirements.

B. The Commission's assessment

(1970) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table **102** above, by restricting access to Money Market indices.

(1971) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2390] In the present case, however, the combined entity held a share of [20-30]% worldwide in Money Market indices in 2019. Post-Transaction, ICE, EMMI (with market shares of [10-20]%, [10-20]% respectively) and a number of other smaller rivals will remain in the upstream market, and the Commission has no indication that the combined entity's indices constitute a relatively more important input in the downstream markets than indicated by its market share

(1972) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table **102** above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1973) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table **102**. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving Money Market indices.[2391]

(1974) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history and CRTDs, following an input foreclosure strategy involving Money Market indices.

4.5.23.2. Customer foreclosure

A. The Notifying Party's view

(1975) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate in tick history and CRTDs. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2392]

B. The Commission's assessment

(1976) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for Money Market indices from access to a sufficient customer base for the following reasons:

2390 Non-Horizontal Merger Guidelines, paragraph 35.

2391 See, for instance, responses to Questions 37, 67, and 101, Questionnaire 9 to information services end-customers, Doc ID 6480.

2392 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005.

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for European equity indices post-merger.[2393] Money Market index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(1977) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for Money Market indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure.

(1978) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for Money Market indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for Money Market indices as a result of customer foreclosure in the abovementioned downstream markets.[2394]

(1979) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in Money Market indices, following a customer foreclosure strategy in the downstream markets listed in Table **102** above.

4.5.24. Fixed income indices (upstream) and tick history and CRTDs (downstream)

(1980) The Transaction gives rise to vertically affected markets regarding fixed income indices (upstream) and tick history and CRTDs (downstream). Upstream, LSEG is active through FTSE Russell and Refinitiv has a *de minimis* presence. In the downstream markets vertically linked with fixed income indices, listed in Table 103 below, only Refinitiv is active in the information services.

2393 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2394 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

Table 103

Vertical Links involving fixed income indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Fixed income indices (worldwide)	LSEG	[10-20]%	Tick history (worldwide)[2395]	Refinitiv	[30-40]%
	Refinitiv	[0-5]%	CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1981) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 103 above.

4.5.24.1. Input foreclosure

A. The Notifying Party's view

(1982) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to fixed income indices to rivals in the downstream markets listed in Table 103 above.[2396] *First*, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1983) *Second*, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product, and in any case nearly all large customers of CRTDs already mult-source their requirements.

B. The Commission's assessment

(1984) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 103 above, by restricting access to fixed income indices.

(1985) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2397] In the present case, however, the combined entity held a share of [10-20]% worldwide in fixed income indices in 2019. Post-Transaction, Bloomberg, ICE (with market shares of [40-50]%, [10-20]% respectively) and a number of other smaller rivals will remain in the upstream market, indicating the absence of the combined entity's market power.

2395 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2396 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001.

2397 Non-Horizontal Merger Guidelines, paragraph 35.

(1986) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 103 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(1987) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 103. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving fixed income indices.[2398]

(1988) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history and CRTDs, following an input foreclosure strategy involving fixed income indices.

4.5.24.2. Customer foreclosure

A. The Notifying Party's view

(1989) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate in tick history and CRTDs. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2399]

B. The Commission's assessment

(1990) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for fixed income indices from access to a sufficient customer base for the following reasons:

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for fixed income indices post-merger.[2400] Fixed income index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(1991) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for fixed income indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, given that end-customers would maintain their demand

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2398 See, for instance, responses to Questions 37, 67, and 101, Questionnaire 9 to information services end-customers, Doc ID 6480.

2399 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005.

2400 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure.

(1992) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for fixed income indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for fixed income indices as a result of customer foreclosure in the abovementioned downstream markets.[2401]

(1993) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in fixed income indices, following a customer foreclosure strategy in the downstream markets listed in Table 103 above.

4.5.25. FX indices (upstream) and tick history and CRTDs (downstream)

(1994) The Transaction gives rise to vertically affected markets regarding FX indices (upstream) and tick history and CRTDs (downstream). Upstream, both Parties have a *de minimis* presence. In the downstream markets vertically linked with FX indices, listed in Table 104 below only Refinitiv is active.

Table 104

Vertical Links involving FX indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
FX indices (worldwide)	LSEG	Market share not available, but revenues in 2019 were *de minimis* (< EUR […])	Tick history (worldwide)[2402]	Refinitiv	[30-40]%
	Refinitiv	Market share not available, but revenues in 2019 were *de minimis* (< EUR […])	CRTDs (worldwide)		[40-50]%

Source: Form CO.

(1995) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 104 above.

4.5.25.1. Input foreclosure

A. The Notifying Party's view

(1996) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to FX indices to rivals in the downstream markets

2401 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

2402 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

listed in Table 104 above.[2403] *First*, both Parties have de minimis activities upstream, and Refinitiv is already vertically integrated, so the de minimis addition from LSEG upstream will not change the ability or incentive to engage in an input foreclosure strategy. Moreover, such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(1997) *Second*, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product, and in any case nearly all large customers of CRTDs already multi-source their requirements.

B. The Commission's assessment

(1998) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 104 above, by restricting access to FX indices.

(1999) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2404] In the present case, however, the combined entity had a *de minimis* presence in FX indices in 2019 and therefore would not have the requisite market power to be able successfully to implement an input foreclosure strategy.

(2000) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 104 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2001) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 104. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving FX indices.[2405]

(2002) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history and CRTDs, following an input foreclosure strategy involving FX indices.

4.5.25.2. Customer foreclosure

A. The Notifying Party's view

(2003) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second,

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2403 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001.

2404 Non-Horizontal Merger Guidelines, paragraph 35.

2405 See, for instance, responses to Questions 37, 67, and 101, Questionnaire 9 to information services end-customers, Doc ID 6480.

Refinitiv's market share is moderate in tick history and CRTDs. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2406]

B. The Commission's assessment

(2004) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for FX indices from access to a sufficient customer base for the following reasons:

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for fixed income indices post-merger.[2407] Fixed income index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(2005) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for fixed income indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure.

(2006) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for FX indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for FX indices as a result of customer foreclosure in the abovementioned downstream markets.[2408]

(2007) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in FX indices, following a customer foreclosure strategy in the downstream markets listed in Table 104 above.

2406 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005.

2407 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2408 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

4.5.26. ESG indices (upstream) and tick history and CRTDs (downstream)

(2008) The Transaction gives rise to vertically affected markets regarding ESG indices (upstream) and tick history and CRTDs (downstream). Upstream, LSEG is active through FTSE Russell and Refinitiv has a *de minimis* presence. In the downstream markets vertically linked with ESG indices, listed in Table **105** below, only Refinitiv is active in the information services.

Table 105

Vertical Links involving ESG indices upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
ESG indices (worldwide)	LSEG	[10-20]%	Tick history (worldwide)[2409]	Refinitiv	[30-40]%
	Refinitiv	[0-5]%	CRTDs (worldwide)		[40-50]%

Source: Form CO.

(2009) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table **105** above.

4.5.26.1. Input foreclosure

A. The Notifying Party's view

(2010) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to ESG indices to rivals in the downstream markets listed in Table **105** above.[2410] *First*, the costs in the form of customer and competitor retaliation, harm to reputation as well as possible regulatory reaction would be too great. Such a strategy would also fundamentally go against an index provider's core objective in making its indices widely available to end-customers.

(2011) *Second*, with regard to CRTDs and tick history, the Notifying Party submits that the principal usage of indices data is non-real time (typically end of day data) because indices are typically used to manage money for investment purposes (i.e. over a medium to long term time horizon) rather than in real time. This is shown clearly by FTSE Russell's indices business for which only equity index data are available in real-time, and the large majority of revenue relates to end of day licenses and various non-real time data products rather than real time data licenses. Moreover, end-customers would not switch their existing products altogether but rather add a Refinitiv product, and in any case nearly all large customers of CRTDs already mult-source their requirements.

B. The Commission's assessment

(2012) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table **105** above, by restricting access to ESG indices.

(2013) According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the

2409 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2410 Form CO, paragraphs D.961-D.968, D.980-D.990, D.995-D.1001.

upstream market.[2411] In the present case, however, the combined entity held a share of [10-20]% worldwide in ESG indices in 2019. Post-Transaction, MSCI, S&P (with market shares of [20-30]%, [5-10]% respectively) and a number of other smaller rivals will remain in the upstream market, indicating the absence of the combined entity's market power.

(2014) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table **105** above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2015) In any event, as regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table **105**. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving ESG indices.[2412]

(2016) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history and CRTDs, following an input foreclosure strategy involving ESG indices.

4.5.26.2. Customer foreclosure

A. The Notifying Party's view

(2017) The Notifying Party submits that first, index providers have many means by which to distribute their data, and therefore no single one is a critical route to market. Second, Refinitiv's market share is moderate in tick history and CRTDs. Therefore, post-Transaction many competitors downstream will remain as distribution channels for index providers upstream.[2413]

B. The Commission's assessment

(2018) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for ESG indices from access to a sufficient customer base for the following reasons:

(a) First, as stated by the Notifying Party, the combined entity's market share in the downstream markets do not indicate an ability to foreclose upstream rivals. Post-Transaction, a number of rivals with market shares >5% will remain in each of the downstream markets.

(b) Second, the existence of different distribution channels for the upstream product can ensure that a sufficiently large revenue base would remain for European equity indices post-merger.[2414] ESG index providers can distribute their data to their customers through many means, including direct supply, real-time feeds, desktops and non-real time data and/or feeds. Indeed, as shown in recital (1437)(b) demand for indices is independent of the means for their

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2411 Non-Horizontal Merger Guidelines, paragraph 35.

2412 See, for instance, responses to Questions 37, 67, and 101, Questionnaire 9 to information services end-customers, Doc ID 6480.

2413 Form CO, paragraphs D.969-D.971, D.991, D.1002-D.1005.

2414 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

delivery to end-customers, and post-Transaction, there will remain alternative means for end-customers to receive the indices.

(2019) As the Commission finds that the combined entity would have no ability to foreclose rivals in the market for ESG indices, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition. Nevertheless, given that end-customers would maintain their demand for rivals' indices in the event of customer foreclosure by the combined entity's products in the downstream markets, it is unclear what the combined entity can expect to gain from engaging in such foreclosure, as it would not directly lead to an increase in market share upstream. Moreover, as a distributor of rivals' indices, the combined entity would be foregoing the fees payable by end-customers for access to these indices through its downstream products, further lessening any incentive to engage in foreclosure.

(2020) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for ESG indices. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for ESG indices as a result of customer foreclosure in the abovementioned downstream markets.[2415]

(2021) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in ESG indices, following a customer foreclosure strategy in the downstream markets listed in Table **105** above.

4.5.27. FX benchmarks (upstream) and Tick history; CRTDs; Desktop services; Clearing services for OTC IRDs; Clearing services for Cash Bonds; Clearing services for Cash equities; Clearing services for repos; Clearing services for OTC equity derivatives; Clearing services for OTC CDS; Clearing services for commodities (downstream)

(2022) The Transaction gives rise to vertically affected markets regarding FX benchmarks (upstream) and tick history, CRTDs, desktop services, and clearing services for cash bonds, OTC IRDs, cash equities, repos, OTC equity derivatives, OTC CDS, and commodities (downstream). Upstream, in the market for FX benchmarks, Refinitiv is active with the WM/R FX rates and LSEG has a *de minimis* market share. The downstream markets vertically linked with FX benchmarks are listed in Table 106 below.

Table 106

Vertical Links involving FX benchmarks upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
FX benchmarks (worldwide)	LSEG	[0-5]%	Tick history (worldwide)[2416]	Refinitiv	[30-40]%
			CRTDs (worldwide)		[40-50]%
			Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%

2415 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

2416 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

Vertical Links involving FX benchmarks upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
			Clearing services for OTC IRDs (worldwide)[2417]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for D2D cash bonds (EEA)[2418]	LSEG	[90-100]% (by value)
			Clearing services for cash equities (EEA)[2419]	LSEG	[40-50]% (by value) [50-60]% (by volume)
	Refinitiv	[70-80]%	Clearing services for ATS-traded non-triparty repos (EEA)[2420]	LSEG	[90-100]%
			Clearing services for OTC equity derivatives (EEA)[2421]	LSEG	[0-5]% (by number of contracts traded) [5-10]% (by notional volume traded)
			Clearing services for OTC CDS (EEA)[2422]	LSEG	[20-30]%
			Clearing services for commodities (worldwide)[2423]	LSEG	[0-5]%

Source: Form CO.

(2023) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 106 above.

4.5.27.1. Input foreclosure

A. The Notifying Party's view

(2024) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to FX benchmarks to rivals in the downstream

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2417 See Table 42 and Table 43 above.

2418 See Table 8 above.

2419 See Table 73 above.

2420 RFI 48 reply, question 1. LSEG's presence in the other segments of repos clearing (namely the CCP clearing of ATS-traded triparty repos and the CCP clearing of non-ATS-traded repos) is minimal, with market shares below [5-10]%.

2421 See Table 69 above.

2422 See Table 67 above.

2423 RFI 46 reply, question 3. LSEG's 2019 share in this market worldwide was [0-5]% (by number of contracts traded); [0-5]% (notional value); and 0.9% (by number of outstanding contracts). LSEG's 2019 share in this market in the EEA was [0-5]% (by number of contracts traded); [0-5]% (notional value); and 3.8% (by number of outstanding contracts).

markets listed in Table 106 above. With respect to the downstream markets of tick history, CRTDs, and desktop services the Notifying Party submits that since FTSE Russell has a *de minimis* presence upstream and downstream only in desktop services, the Transaction will have limited incremental effect on the degree of vertical integration and thus the pre-existing ability or incentive for input foreclosure.[2424]

(2025) With respect to the downstream markets in clearing services, the Notifying Party submits the following. Firstly, proportionally speaking, these benchmarks are not material inputs to the provision of clearing services downstream. This is evidenced by the fact that clearing providers' spend on these benchmarks is very small compared to the overall size of their business. Secondly, Refinitiv has committed to the UK FCA that it would operate its core FX benchmark product, the WM/Reuters Spot, as if it were a critical benchmark under the EU Benchmark Regulation. As a result, Refinitiv is obliged to license WM/Reuters Spot to all users on reasonable and non-discriminatory terms, in accordance with Article 22 of the Regulation. Further, CCPs relying on the FX benchmark are also now protected under Article 37 MiFIR since it came into force on 3 January 2020.[2425]

B. The Commission's assessment

(2026) For the downstream markets of tick history, CRTDs and desktop services the Commission considers that the vertical link between FX benchmarks and these downstream markets is pre-existing, as Refinitiv is active both upstream and downstream, while LSEG is only active upstream and downstream in desktop services, both with a *de minimis* share. Thus, as argued by the Notifying Party, the Commission considers that the ability or incentive of the combined entity will not change significantly as a result of the Transaction.

(2027) With regards to the downstream markets in clearing services, the Commission considers that post-Transaction the combined entity would not have the ability or incentive to foreclose its rivals in the downstream markets listed in Table 106 above.

(2028) *First*, as argued by the Notifying Party, Article 37 MiFIR provides that non-discriminatory access to FX benchmarks is ensured to CCPs for clearing purposes. More precisely, Article 37 MiFIR provides that "*a person with proprietary rights to the benchmark shall ensure that CCPs and trading venues are permitted, for the purposes of trading and clearing, non-discriminatory access to: (a) relevant price and data feeds and information on the composition, methodology and pricing of that benchmark for the purposes of clearing and trading; and (b) licences.*"[2426] Refinitiv is already bound as of today by these provisions of MiFIR, and will continue to be so even after the end of the transitional period for the UK's withdrawal from the EU. This is because Article 37 MiFIR is part of Title VI of MiFIR, which applies to all persons with proprietary rights to benchmarks traded on an EU-regulated trading venue or being cleared at an EU-regulated CCP, regardless of whether or not those persons are located in the EU.

(2029) *Second*, the market investigation revealed that in any case FX benchmarks provided by Refinitiv are not considered by most rival CCPs as an essential input in the sense that CCPs could resort to alternative benchmark providers to obtain the same data

2424 Form CO, paragraph D.925.
2425 Form CO, paragraph D.1029-D.1037.
2426 Article 37 of MiFIR

they need in the course of their day-to-day business. As regards possible alternative sources, BME explains that "*in the case of FX products, other electronic platforms such as Ebury, Kantox, EBS, etc.*"[2427] HKEX mentions "*Bloomberg or IHS Markit*"[2428] as potential substitutes for Refinitiv as benchmark provider. Similarly, SGX is of the opinion that "*an alternative provider could be Bloomberg*"[2429] The Commission notes that Nasdaq added "*those alternatives would need to be agreed with market participants to gain validity*", but did not indicate a significant obstacle to doing so.[2430]

(2030) As regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 106. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on these markets as a result of input foreclosure involving FX benchmarks.[2431]

(2031) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for tick history, CRTDs, desktop services, and clearing services in OTC IRDs, cash bonds, cash equities, repos, OTC equity derivatives, OTC CDS, and commodities, following an input foreclosure strategy involving FX benchmarks.

4.5.27.2. Customer foreclosure

A. The Notifying Party's view

(2032) With respect to the downstream markets of tick history, CRTDs, and desktop services, the Notifying Party submits that since FTSE Russell has a *de minimis* presence upstream and downstream only in desktop services, the Transaction will have limited incremental effect on the degree of vertical integration and thus the pre-existing ability and incentive for customer foreclosure.[2432]

(2033) With respect to the downstream markets in clearing services, the Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in FX benchmarks, by restricting access to its demand in the downstream markets listed in Table 106 above. *First*, Refinitiv's sales of FX benchmarks to firms that are active in clearing services are a very small percentage of its overall sales of these benchmarks[2433]. Clearing services are therefore not the key distribution channel for FX benchmarks. *Second*, the Notifying Party notes that the nature of FX benchmarks is such that costs of firms producing it are unlikely to materially vary if a single, minor distribution channel is lost. This is because the costs of producing FX benchmarks are largely fixed and do not vary substantially with the use of clearing services as a distribution channel. This means that even if the

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2427 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of BME, Doc ID 5937.
2428 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of HKEX, Doc ID 5377.
2429 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of SGX, Doc ID 5626.
2430 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of Nasdaq, Doc ID 5731.
2431 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors and Questions 20, 37, 67, and 101 in Questionnaire 9 to information services end-customers, Doc ID 6480.
2432 Form CO, paragraph D.925.
2433 Form CO, Table 102.

Parties adopt a foreclosure strategy, there is no prospect that a rival FX benchmarks would be marginalised as a competitor because its costs would not be affected.[2434]

B. The Commission's assessment

(2034) For the downstream markets of tick history, CRTDs, and desktop services, the Commission considers that the vertical link between FX benchmarks and these downstream markets is pre-existing, as Refinitiv is active both upstream and downstream, while LSEG is only active upstream and downstream in desktop services, both with a *de minimis* share. Thus, as argued by the Notifying Party, the Commission considers that the ability or incentive of the combined entity will not change significantly as a result of the Transaction.

(2035) With regards to the downstream markets in clearing services, the Commission considers that post-Transaction the combined entity would not have the ability or incentive to foreclose its rivals in the upstream markets listed in Table 106 above. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of FX benchmarks since as mentioned by the Notifying Party, firms that are active in clearing services constitute a small portion of the demand of these benchmarks. Indeed, Refinitiv's revenues in FX and interest rate benchmarks together from providers of clearing services was just [a very small percentage] in 2019.[2435] Considering this as a proxy for other providers of FX benchmarks, the Commission finds that, while the combined entity would have high market shares in the relevant clearing markets, those markets constitute a small proportion of the overall revenue base for FX benchmark providers; hence, the loss of the combined entity as a customer would not have a significant impact on upstream competitors' ability to effectively compete in the market.

(2036) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for FX benchmarks. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for FX benchmarks as a result of customer foreclosure in the abovementioned downstream markets.[2436]

(2037) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in FX benchmarks, following a customer foreclosure strategy in the downstream markets listed in Table 106 above.

4.5.28. Interest rate benchmarks (upstream) and Clearing services for OTC IRDs; Clearing services for Cash Bonds; and Clearing services for Cash equities (downstream)

(2038) Benchmarks are used by clearing houses as a reference in the provision of clearing services and functions relating to their role as a clearing provider. Furthermore, benchmarks are used by clearing houses for the daily calculation of margin interest on collateral balances placed by members. A clearing house may also use benchmark data for risk management purposes (in particular to evaluate possible counterparty

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2434 Form CO, paragraph D.1038-D.1039.

2435 RFI 49 reply, Table 1.

2436 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

risk). The Transaction gives rise to vertically affected markets regarding interest rate benchmarks (upstream) and clearing services for cash bonds, OTC IRDs, and cash equities respectively (downstream). Upstream, in the market for interest rate benchmarks, Refinitiv is active. In the downstream markets vertically linked with interest rate benchmarks, listed in Table **107** below, only LSEG is active.

Table 107

Vertical Links involving Interest rate benchmarks upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Interest rate benchmarks (worldwide)	Refinitiv	Not calculated	Clearing services for OTC IRDs (worldwide)[2437]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for D2D cash bonds (EEA)[2438]	LSEG	[90-100]% (by value)
			Clearing services for cash equities (EEA)[2439]	LSEG	[40-50]% (by value) [50-60]% (by volume)

Source: Form CO.

(2039) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table **107** above.

4.5.28.1. Input foreclosure

A. The Notifying Party's view

(2040) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to interest rate benchmarks to rivals in the downstream markets listed in Table 106 above. Firstly, proportionally speaking, these benchmarks are not material inputs to the provision of clearing services downstream. This is evidenced by the fact that clearing providers' spend on these benchmarks is very small compared to the overall size of their business. Secondly, CCPs relying on the interest rate benchmarks are also now protected under Article 37 MiFIR since it came into force on 3 January 2020.[2440]

B. The Commission's assessment

(2041) The Commission considers that post-Transaction the combined entity would not have the ability or incentive to foreclose its rivals in the downstream markets listed in Table **107** above.

(2042) *First*, as argued by the Notifying Party, Article 37 MiFIR provides that non-discriminatory access to interest rate benchmarks is ensured to CCPs for clearing purposes. More precisely, article 37 MiFIR provides that "*a person with proprietary rights to the benchmark shall ensure that CCPs and trading venues are permitted,*

2437 See Table 42 and Table 43 above.
2438 See Table 8 above.
2439 See Table Table 73 above.
2440 Form CO, paragraph D.1029-D.1037.

for the purposes of trading and clearing, non-discriminatory access to: (a) relevant price and data feeds and information on the composition, methodology and pricing of that benchmark for the purposes of clearing and trading; and (b) licences."[2441] Refinitiv is already bound as of today by these provisions of MiFIR, and will continue to be so even after the end of the transitional period for the UK's withdrawal from the EU. This is because Article 37 MiFIR is part of Title VI of MiFIR, which applies to all persons with proprietary rights to benchmarks traded on an EU-regulated trading venue or being cleared at an EU-regulated CCP, regardless of whether or not those persons are located in the EU.

(2043) *Second*, the market investigation revealed that interest rate benchmarks provided by Refinitiv are not considered by most rival CCPs as an essential input in the sense that CCPs could resort to alternative benchmark providers to obtain the same data they need in the course of their day-to-day business. As regards possible alternative sources, BME explains that "*Other alternatives for IR Benchmarks can be Bloomberg*"[2442] HKEX mentions "*Bloomberg or IHS Markit*"[2443] as potential substitutes for Refinitivas benchmark provider. Similarly, SGX is of the opinion that "*an alternative provider could be Bloomberg*"[2444]

(2044) As regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table **107**. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for Clearing services for Cash Bonds; Clearing services for Over-The-Counter Interest-Rate Derivatives; and Clearing services for Cash equities (downstream) as a result of input foreclosure involving interest rate benchmarks.[2445]

(2045) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for clearing services in OTC IRDs, cash bonds and cash equities, following an input foreclosure strategy involving interest rate benchmarks.

4.5.28.2. Customer foreclosure

A. The Notifying Party's view

(2046) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in interest rate benchmarks, by restricting access to its demand in the downstream markets listed in Table **107** above. First, Refinitiv's sales of interest rate benchmarks to firms that are active in clearing services are a very small percentage of its overall sales of these benchmarks[2446]. Clearing services are therefore not the key distribution channel for interest rate benchmarks. Second, the Notifying Party notes that the nature of interest rate benchmarks is such that costs of firms producing it are unlikely to materially vary if a single, minor distribution channel is lost. This is because the costs of producing interest rate benchmarks are largely fixed and do not vary substantially with the use of clearing services as a distribution channel. This means that even if the Parties

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2441 Article 37 of MiFIR

2442 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of BME, Doc ID 5937.

2443 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of HKEX, Doc ID 5377.

2444 Question 7.c, Questionnaire to OTC IRD clearing competitors, response of SGX, Doc ID 5626.

2445 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors.

2446 Form CO, Table 102.

adopt a foreclosure strategy, there is no prospect that a rival interest rate benchmarks would be marginalised as a competitor because its costs would not be affected.[2447]

B. The Commission's assessment

(2047) The Commission considers that post-Transaction the combined entity would not have the ability or incentive to foreclose its rivals in the upstream markets listed in Table **107** above. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of interest rate benchmarks since as mentioned by the Notifying Party, firms that are active in clearing services constitute a small portion of the demand of these benchmarks. Indeed, Refinitiv's revenues in FX and interest rate benchmarks together from providers of clearing services was just [a very small percentage] in 2019.[2448] Considering this as a proxy for other providers of interest rate benchmarks, the Commission finds that, while the combined entity would have high market shares in the relevant clearing markets, those markets constitute a small proportion of the overall revenue base for interest rate benchmark providers; hence, the loss of the combined entity as a customer would not have a significant impact on upstream competitors' ability to effectively compete in the market.

(2048) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for interest rate benchmarks. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for interest rate benchmarks as a result of customer foreclosure in the abovementioned downstream markets.[2449]

(2049) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in interest rate benchmarks, following a customer foreclosure strategy in the downstream markets listed in Table **107** above.

4.5.29. Gilt Benchmarks (upstream) and Clearing services for Cash Bonds; Clearing services for Over-The-Counter Interest-Rate Derivatives; and Clearing services for Cash equities (downstream)

(2050) Benchmarks are used by clearing houses as a reference in the provision of clearing services and functions relating to their role as a clearing provider. Furthermore, benchmarks are used by clearing houses for the daily calculation of margin interest on collateral balances placed by members. A clearing house may also use benchmark data for risk management purposes (in particular to evaluate possible counterparty risk). The Transaction gives rise to vertically affected markets regarding Gilt benchmarks (upstream) and clearing services for cash bonds, OTC IRDs, and cash equities respectively (downstream). Upstream, in the market for interest rate benchmarks, Refinitiv is active through Tradeweb. In the downstream markets vertically linked with interest rate benchmarks, listed in Table **108** below, only LSEG is active.

2447 Form CO, paragraph D.1038-D.1039.

2448 RFI 49 reply, Table 1.

2449 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

Table 108

Vertical Links involving Gilt benchmarks upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Gilt benchmarks (worldwide)	Refinitiv	Not provided by the Notifying Party	Clearing services for OTC IRDs (worldwide)[2450]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for D2D cash bonds (EEA)[2451]	LSEG	[90-100]% (by value)
			Clearing services for cash equities (EEA)[2452]	LSEG	[40-50]% (by value) [50-60]% (by volume)

Source: Form CO.

(2051) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table **108** above.

4.5.29.1. Input foreclosure

A. The Notifying Party's view

(2052) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to interest rate benchmarks to rivals in the downstream markets listed in Table **108** above. Firstly, proportionally speaking, these benchmarks are not material inputs to the provision of clearing services downstream. This is evidenced by the fact that clearing providers' spend on these benchmarks is very small compared to the overall size of their business. Secondly, CCPs relying on the interest rate benchmarks are also now protected under Article 37 MiFIR since it came into force on 3 January 2020. Moreover, Tradeweb's Gilt Closing Price benchmark is subject to commitments to the UK Debt Management Office. Under the commitments, Tradeweb will supply the benchmark to all users for free on a delayed basis.[2453]

B. The Commission's assessment

(2053) The Commission considers that post-Transaction the combined entity would not have the ability or incentive to foreclose its rivals in the downstream markets listed in Table **108** above.

(2054) *First*, as argued by the Notifying Party, Article 37 MiFIR provides that non-discriminatory access to interest rate benchmarks is ensured to CCPs for clearing purposes. More precisely, Article 37 MiFIR provides that "*a person with proprietary rights to the benchmark shall ensure that CCPs and trading venues are permitted, for the purposes of trading and clearing, non-discriminatory access to: (a) relevant price and data feeds and information on the composition, methodology and pricing*

2450 See Table 42 and Table 43 above.
2451 See Table 8 above.
2452 See Table 73 above.
2453 Form CO, paragraph D.1029-D.1037.

of that benchmark for the purposes of clearing and trading; and (b) licences."[2454] Refinitiv is already bound as of today by these provisions of MiFIR, and will continue to be so even after end of the transitional period for the UK's withdrawal from the EU. This is because Article 37 MiFIR is part of Title VI of MiFIR, which applies to all persons with proprietary rights to benchmarks traded on an EU-regulated trading venue or being cleared at an EU-regulated CCP, regardless of whether or not those persons are located in the EU. Moreover, Tradeweb has commited to the UK Debt Management Office, which was the previous administrator of the Gilt benchmarks, to provide the benchmark for free to all users on a delayed basis.

(2055) *Second*, the market investigation revealed that Gilt benchmarks provided by Refinitiv are not considered by most CCPs as an essential input in the sense that CCPs could resort to alternative benchmark providers to obtain the same data they need in the course of their day-to-day business. By way of example, [commercial strategy].[2455]

(2056) As regards impact, the Commission considers that any input foreclosure strategy is unlikely to have a significant detrimental effect on competition in any of the downstream markets in Table 107. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for clearing services from an input foreclosure of Gilt benchmarks.[2456]

(2057) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for clearing services in OTC IRDs, cash bonds and cash equities, following an input foreclosure strategy involving Gilt benchmarks.

4.5.29.2. Customer foreclosure

A. The Notifying Party's view

(2058) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in Gilt benchmarks, by restricting access to its demand in the downstream markets listed in Table 107 above. First, Refinitiv's sales of Gilt benchmarks to firms that are active in clearing services are a very small percentage of its overall sales of these benchmarks. Clearing services are therefore not the key distribution channel for Gilt benchmarks. Second, the Notifying Party notes that the nature of Gilt benchmarks is such that costs of firms producing it are unlikely to materially vary if a single, minor distribution channel is lost. This is because the costs of producing Gilt benchmarks are largely fixed and do not vary substantially with the use of clearing services as a distribution channel. This means that even if the Parties adopt a foreclosure strategy, there is no prospect that a rival Gilt benchmarks would be marginalised as a competitor because its costs would not be affected.[2457]

2454 Article 37 of MiFIR.

2455 RFI 46 reply, paragraph 49.

2456 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors, Doc ID 6466.

2457 Form CO, paragraph D.1038-D.1039.

B. The Commission's assessment

(2059) The Commission considers that post-Transaction the combined entity would not have the ability or incentive to foreclose its rivals in the upstream markets listed in Table **108** above. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of interest rate benchmarks since first, [commercial strategy][2458] and second, as mentioned by the Notifying Party, firms that are active in clearing services constitute a small portion of the demand of these benchmarks. Indeed, Refinitiv's revenues in Gilt benchmarks from providers of clearing services was just [a very small percentage] in 2019.[2459] Considering this as a proxy for other providers of Gilt benchmarks, the Commission finds that, while the combined entity would have high market shares in the relevant clearing markets, those markets constitute a small proportion of the overall revenue base for Gilt benchmark providers; hence, the loss of the combined entity as a customer would not have a significant impact on upstream competitors' ability to effectively compete in the market.

(2060) As regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for Gilt benchmarks. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the markets for Gilt benchmarks as a result of customer foreclosure in the abovementioned downstream markets.[2460]

(2061) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in Gilt benchmarks, following a customer foreclosure strategy in the downstream markets listed in Table 107 above.

4.5.30. Security identifiers (upstream) and Desktop services; CRTDs; Tick history; ESG indices; UK Equity indices; European equity indices; Global equity indices; Commodities indices; Fixed income indices; Multi-asset index licensing; Trading services for D2C government bonds; Trading services for Over-The-Counter Interest-Rate Derivatives; and Trading services for ETPs (downstream)

(2062) The Transaction gives rise to vertically affected markets regarding security identifiers (upstream) and Desktop services; CRTDs; Tick history; ESG indices; UK Equity indices; European equity indices; Global equity indices; Fixed income indices; Multi-asset index licensing; Trading services for D2C government bonds; Trading services for Over-The-Counter Interest-Rate Derivatives; and Trading services for ETPs (downstream). Upstream, in the market for security identifiers, and its possible sub-segments, both Parties are active. The downstream markets vertically linked with security identifiers are listed in the Table below.

2458 RFI 46 reply, paragraph 48.

2459 RFI 49 reply, Table 1.

2460 See, for instance, responses to Question 34, Questionnaire 10 to index competitors, Doc ID 6460.

Table 109

Vertical Links involving security identifiers upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Security identifiers	Refinitiv	Market share in overall market of security identifiers unknown but *de minimis* (EUR […] of revenue worldwide)	Desktop services (worldwide)	LSEG	[0-5]%
				Refinitiv	[10-20]%
			CRTDs (worldwide)	Refinitiv	[40-50]%
			Tick history (worldwide)[2461]		[30-40]%
			ESG indices (worldwide)	LSEG	[10-20]%
				Refinitiv	[0-5]%
			UK equity indices (worldwide)	LSEG	[80-90]%
			European equity indices (worldwide)	LSEG	[10-20]%
				Refinitiv	[0-5]%
			Global equity indices (worldwide)	LSEG	[10-20]%
				Refinitiv	[0-5]%
			Commodities indices (worldwide)	Refinitiv	[0-5]%
			Fixed income indices (worldwide)	LSEG	[10-20]%
				Refinitiv	[0-5]%
	LSEG	Market share in overall market of security identifiers unknown (over EUR […] of revenue worldwide); Market share [90-100]% in plausible market of SEDOLs	Multi-asset index licensing (worldwide)	Refinitiv	[0-5]%
				LSEG	[10-20]%
			Trading of OTC D2C IRDs (worldwide)[2462]	Refinitiv	[20-30]% (by volume) [20-30]% (by value)
			Trading of OTC D2D IRDs (worldwide)[2463]	Refinitiv	[0-5]% (by volume) [0-5]% (by value)
			Electronic Trading services for European Government bonds (EEA)[2464]	LSEG	[20-30]%
				Refinitiv	[40-50]%
			Trading services for cash equities – ETPs (EEA)[2465]	LSEG	[30-40]% (by volume) [10-20]% (by value)
				Refinitiv	[0-5]% (by volume and by value)

Source: Form CO.

(2063) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table **109** above.

2461 In a plausible EEA-wide market for tick history, the market share of Refinitiv in 2019 was [40-50]%.

2462 In a plausible EEA-wide market for trading services for OTC D2C IRDs, the market share of Refinitiv in 2019 was [10-20]% (by volume) and [20-30]% (by value). See Table 9 and Table 11.

2463 In a plausible EEA-wide market for trading services for OTC D2D IRDs, the market share of Refinitiv in 2019 was [0-5]% (by volume and by value). See Table 10 and Table 12.

2464 See Table 3.

2465 See Table 70 above.

4.5.30.1. Input foreclosure

A. The Notifying Party's view

(2064) As regards the ability to engage in an input foreclosure strategy, the Notifying Party considers that the combined entity would lack the ability to deny access to security identifiers to tick history and ESG indices customers because the combined entity's presence in RICs would be absolutely de minimis, and SEDOLs is only one among many security identifiers that can be used to identify a security, while there are many alternatives in the market, such as such as ISIN, CUSIP (by S&P) and FIGI (by Bloomberg), which customers can use instead. The Notifying Party claims that customers usually use multiple security identifiers and would be able to switch from SEDOL to an alternative security identifier, such as ISIN or CUSIP.[2466]

(2065) With respect to CRTDs and desktop services, the Notifying Party argues that in practice, end-customers rarely interact with CRTDs and desktop services through SEDOL: SEDOLs, as well as other security identifiers (i.e. ISIN, CUSIP, etc.), are stored locally at the customers' premises in their securities masters and mapping tables.[2467]

(2066) With respect to UK equity indices, European equity indices, global equity indices, commodities indices, fixed income indices and multi-assets index licencing, the Notifying Party submits that the combined entity's presence in RICs would be absolutely de minimis, and SEDOL is not an important input into index licensing. Moreover, similarly to the arguments put forward with respect to tick history and ESG indices, the Notifying Party explains that there are many other security identifiers that downstream customers could use instead of SEDOLs (or RICs), and customers usually already use multiple security identifiers, and could switch from SEDOLs to an alternative identifier.[2468]

(2067) With respect to trading services for D2C government bonds, trading services for OTC IRDs and trading services for ETPs, the Notifying Party claims that SEDOL is not a critical input into trading services and that there are several alternative security identifiers, such as ISIN, CUSIP and FIGI, which rivals of the merged entity's trading venues can utilise.[2469]

B. The Commission's assessment

(2068) First, as regards ability, as explained in section 4.4.12 above, the Commission's investigation confirmed that (i) the vast majority, if not all, customers usually license multiple security identifiers and (ii) customers could switch between the identifiers they use. Moreover, the market investigation did not provide any indications that the ease of switching could depend on the application for which end-customers license security identifiers. As such it appears that customers would have the ability to switch to suitable alternative suppliers in the event of a potential input foreclosure strategy aimed at restricting access to LSEG and Refinitiv's security identifiers. In the event that they would need to do so, the closest alternative to both LSEG's SEDOLs and Refinitiv's RICs is ISINs[2470], so that it would be possible for customers

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2466 Form CO, paragraph D.808.

2467 Response to the decision pursuant to Article 6(1)(c), paragraph 171.

2468 Form CO, paragraph D.818.

2469 Form CO, paragraph D.829.

2470 See Question 152, Questionnaire 9 to information services end-customers, Doc ID 6480 and Question 153, Questionnaire 9 to information services end-customers, Doc ID 6480.

to source security identifiers from alternative providers which are not controlled by either of the Parties.

(2069) Second, as regards incentives, the Commission notes that, as already mentioned in section 4.4.12 above, the increment brought by Refinitiv in the upstream market for security identifiers is very small. As already explained above with respect to horizontal concerns, Refinitiv's direct revenue from third-party RICs licenses was de minimis and amounted to only approximately EUR […] in 2018 compared to over EUR […] of SEDOL revenues for LSEG in the same year. As such, even in the hypothetical extreme case that there were no competitors besides LSEG and Refinitiv in the global market for security identifiers (so that the total market size was limited to EUR […] only), the increment brought by Refinitiv would be [0-5]%, and the HHI increment would be […]. In the less remote hypothesis that LSEG's market share would be as high as 50%,[2471] the the increment brought by Refinitiv would be [0-5]%, and the HHI increment would be as low as […].

(2070) Therefore, with respect to ESG indices, UK equity indices, European equity indices, Global equity indices, fixed income indices, multi-asset index licensing and ETP trading, the vertical link is pre-existing. As such, for these products the Transaction only marginally increases LSEG's market position in the upstream market for the provision of security identifiers. The Commission considers that these changes are not likely to produce a material shift in LSEG's incentives to engage in an input foreclosure strategy as a result of the Transaction.

(2071) With respect to commodities indices, tick history, desktop services, CRTDs, the trading of D2C government bonds and the trading of OTC IRDs, as the Commission finds that the combined entity would not have the ability to foreclose competitors in the downstream markets, it is not necessary to assess the combined entity's incentive to engage in a potential input foreclosure strategy.

(2072) In any event, as regards impact, the Commission considers that an input foreclosure strategy is unlikely to have a significant detrimental effect on competition in the downstream markets. The market investigation did not provide substantiated indications or evidence that the consequences of the Transaction on the security identifiers market would have a negative impact on these downstream markets, namely desktop services, CRTDs, tick history, ESG indices, UK equity indices, European equity indices, Global equity indices, commodities indices, fixed income indices, multi-asset index licensing, trading services for D2C government bonds, trading services for OTC IRDs and trading services for ETPs.

(2073) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in CRTDs, desktop services, tick history, ESG indices, UK equity indices, European equity indices, Global equity indices, commodities indices, fixed income indices, multi-asset index licensing, trading services for D2C government bonds, trading services for OTC IRDs and trading services for ETPs following an input foreclosure strategy involving the provision of security identifiers.

[2471] According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150. See the Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

4.5.30.2. Customer foreclosure

A. The Notifying Party's view

(2074) As regards the ability to engage in a customer foreclosure strategy, the Notifying Party claims that there are alternative customers in desktop services, CRTDs and tick history and that at any rate, these are only among many channels through which security identifiers are distributed.[2472] Moreover, refusing to offer other third-party security identifiers would degrade the quality of Refinitiv's downstream product offerings.

(2075) With respect to UK equity indices, European equity indices, Global equity indices, commodities indices, fixed income indices and multi-assets index licencing, the Notifying Party submits that the relevant downstream activities of the Parties are not an important and critical route to market for the competitors, because the Parties' combined market share downstream would remain 30% under any plausible market definition and the Parties face a number of significant competitors in index licensing. In support of this, the Notifying Party also submits that LSEG sales of SEDOL to firms active in index licensing of EUR […] accounted for [a very small percentage] of its total sales of SEDOLs.[2473]

(2076) With respect to trading services for D2C government bonds, trading services for OTC IRDs and trading services for ETPs, the Notifying Party claims that the Parties are not a critical customer in the downstream market. In support of this, the Notifying Party also submits that LSEG sales of SEDOL to firms active in trading services of […] accounted for less than [a very small percentage] of its total sales of SEDOLs.[2474]

(2077) As regards impact, the Notifying Party explains that there is little likelihood that refusing to carry rival security identifiers could marginalise or exclude competition in security identifiers.[2475]

B. The Commission's assessment

(2078) First, as regards ability, the Commission notes that the Parties' combined market shares remain reasonable (below 20%) for most of the downstream markets, namely desktop services, ESG indices, European equity indices, Global equity indices, commodities indices, fixed income indices and multi-asset index licensing. As such, for these markets the combined entity would likely lack the market power at downstream level to engage in any kind of customer foreclosure strategy.

(2079) With respect to CRTDs and tick history, the Parties' combined market shares would be above 30%. However, as emphasised by the Notifying Party, these are only two among many other channels through which security identifiers are distributed, including a direct channel from security identifier providers to their end-customers. As a result, post-Transaction rival security identifier providers would be able to use numerous alternative distribution channels to provide their customers with their security identifiers.

(2080) With respect to UK equity indices downstream, while the market share is rather high, the vertical link is pre-existing. As such, for these products the Transaction only

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2472 Form CO, paragraph D.780, D.789, D.810.
2473 Form CO, paragraph D.823.
2474 Form CO, paragraph D.832-833.
2475 Form CO, paragraph D.810.

marginally changes the Notifying Party's ability or incentive to engage in a potential customer foreclosure strategy. The Commission considers that the Transaction is not likely to produce a material shift in LSEG's incentives to engage in a customer foreclosure strategy.

(2081) With respect to trading services for D2C government bonds, trading services for OTC IRDs and trading services for ETPs, the Parties' combined market shares would be significant (up to [40-50]% for trading services for D2C government bonds), but these markets only account for a minor proportion of all sales of security identifiers, as exemplified by the fact that LSEG sales of SEDOL to firms active in trading services of […] accounted for less than [a very small percentage] of its total sales of SEDOLs. Using these rates as a proxy for rival security identifier providers, the Commission considers that a customer foreclosure strategy aiming at restricting the access of rival providers of security identifiers to the combined entity's trading services would not succeed because rival providers of security identifiers would still have access to [a very high percentage] of their revenue base.

(2082) Second, as regards incentives, the Commission notes that, as already mentioned in section 4.4.12 above, the increment brought by Refinitiv in the upstream market for security identifiers is very small. As already explained above with respect to horizontal concerns, Refinitiv's direct revenue from third-party RICs licenses was de minimis and amounted to only approximately EUR […] in 2018 compared to over EUR […] of SEDOL revenues for LSEG in the same year. As such, even in the hypothetical extreme case that there were no competitors besides LSEG and Refinitiv in the global market for security identifiers (so that the total market size was limited to EUR […] only), the increment brought by Refinitiv would be [0-5]%, and the HHI increment would be […]. In the less remote hypothesis that LSEG's market share would be as high as 50%,[2476] the the increment brought by Refinitiv would be [0-5]%, and the HHI increment would be as low as […].

(2083) Therefore, with respect to ESG indices, UK equity indices, European equity indices, Global equity indices, fixed income indices, multi-asset index licensing and ETP trading, the vertical link is largely pre-existing. As such, at least for these products, the Transaction only marginally increases LSEG's market position in the upstream market for the provision of security identifiers. The Commission considers that these changes are not likely to produce a material shift in LSEG's incentives to engage in a customer foreclosure strategy as a result of the Transaction.

(2084) With respect to commodities indices, CRTDs, desktop services, tick history, the trading of D2C government bonds and the trading of OTC IRDs, as the Commission finds that the combined entity would not have the ability to foreclose competitors in the downstream markets, it is not necessary to assess the combined entity's incentive to engage in a potential input foreclosure strategy.

(2085) In any event, as regards impact, the Commission considers that a customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the upstream market for security identifiers. The market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the upstream market for security identifiers.

2476 According to the Horizontal Merger Guidelines, the Commission is unlikely to identify horizontal competition concerns in a merger with an HHI increment below 150. See the Horizontal Merger Guidelines, paragraph 20 (except under special circumstances which are not present in this case).

(2086) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the upstream market for security identifiers following a customer foreclosure strategy involving the provision of desktop services, CRTDs, tick history, ESG indices, UK equity indices, European equity indices, Global equity indices, commodities indices, fixed income indices, multi-asset index licensing, trading services for D2C government bonds, trading services for OTC IRDs or trading services for ETPs.

4.5.31. CNPRD (upstream) – Consolidated real-time datafeeds, convertible bond indices, real estate indices, trading of cash equities, and D2C government bonds, and clearing of IRDs, cash bonds and cash equities (downstream)

(2087) The Transaction gives rise to vertically affected markets regarding consolidated non-real-time pricing and reference data (upstream) and consolidated real-time datafeeds, convertible bond indices, real estate indices, the trading of ETPs, and D2C government bonds, as well as clearing of IRDs, cash bonds, and cash equities (downstream).[2477] Upstream, in the market for consolidated non-real-time pricing and reference data, and its possible sub-segments, Refinitiv is active. The downstream markets vertically linked with consolidated non-real-time pricing and reference data are listed in the table below.

Table 110

Vertical Links involving CNPRD upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Consolidated non-real-time pricing and reference data (worldwide)	Refinitiv	[10-20]%	Clearing services for OTC IRDs (worldwide)[2478]	LSEG	[70-80]% (by volumes outstanding) [90-100]%% (by volumes cleared)
			Clearing services for D2D cash bonds (EEA)[2479]	LSEG	[90-100]% (by value)
			Clearing services for cash equities (EEA)[2480]	LSEG	[40-50]% (by value) [50-60]% (by volume)
			CRTDs (worldwide)	Refinitiv	[40-50]%
	LSEG	[0-5]%	Convertible bond indices (worldwide)	Refinitiv	[30-40]%
				LSEG	[0-5]%
			Real estate	LSEG	[30-40]%

2477 For completeness, the Transaction also technically gives rise to a vertical overlap between the market for CNRPDs (upstream) and the relevant markets for trading services for OTC IRDs (downstream). In all these downstream markets, only Refinitiv is active today through Tradeweb. In the upstream market, Refinitiv is already present today and LSEG's presence is limited ([0-5]% in 2019). The Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input or customer foreclosure in these markets.

2478 See Table 42 and Table 43 above.

2479 See Table 8 above.

2480 See Table Table 73 above.

Vertical Links involving CNPRD upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
			indices (worldwide)[2481]		
			Trading services for cash equities – company issued stock (EEA)[2482]	LSEG	[30-40]% (by volume) [20-30]% (by value)
				Refinitiv	[0-5]% (by volume) [0-5]% (by value)
			Trading services for cash equities – ETPs (EEA)[2483]	LSEG	[30-40]% (by volume) [10-20]% (by value)
				Refinitiv	[0-5]% (by volume and by value)
			Electronic Trading services for European Government bonds (EEA)[2484]	LSEG	[20-30]%
				Refinitiv	[40-50]%

Source: Form CO.

(2088) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 110 above.

4.5.31.1. Input foreclosure

A. The Notifying Party's view

(2089) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to non-real-time pricing and reference data to rivals in the downstream markets listed in Table 110 above. According to the Notifying Party, no input foreclosure concerns arise given the Parties' lack of market power upstream, evidenced by the modest market shares upstream. Moreover, Refinitiv is already vertically integrated between consolidated non-real-time pricing and reference data and some of the products downstream (i.e. CRTDs, the trading of OTC IRDs and D2C government bonds, and convertible bond indices). The increment brought by LSEG's activities downstream is *de minimis*, which is unlikely to meaningfully affect the Parties' incentives to engage in input foreclosure.[2485]

B. The Commission's assessment

(2090) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 110 above.

(2091) *First,* based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream

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2481 Real estate indices do not represent an affected market with regards to consolidated non-real-time pricing and reference data when observing EEA market shares, as both products are below the 30% market share threshold.

2482 See Table 71 and Table 72 above.

2483 See Table 70 above.

2484 See Table 3.

2485 Form CO, paragraphs D.633 and D.673.

product.[2486] However, consolidated non-real-time pricing and reference data are not an important input for any of the downstream markets listed in Table 110above:

(a) Consolidated non-real-time pricing and reference data does not constitute a critical component without which downstream products could not be developed or effectively sold in the market. For instance, CRTDs distribute real-time content, and therefore consolidated non-real-time pricing and reference data are a not a key input for this product.[2487] Trading venues equally make use of predominantly their own generated real-time data in order to provide trading services, with non-real-time data serving only as reference; and

(b) The market investigation did not provide any evidence that consolidated non-real-time pricing and reference data are an important input for any of the downstream markets listed in Table 110 above.[2488]

(2092) *Second*, according to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2489] In the present case, the combined entity would lack post-Transaction the market power upstream that would give it the ability to foreclose rivals in the downstream markets. In consolidated non-real-time pricing and reference data, the combined entity held a share of [10-20]% in the EEA in 2019. Post-Transaction, the combined entity will continue to be constrained by several rivals in consolidated non-real-time pricing and reference data, such as IHS Markit, ICE and Bloomberg (each holding a market share of [20-30]%, [10-20]% and [10-20]% respectively in the EEA for 2019). These stronger players could expand output to consolidated non-real-time pricing and reference data for any downstream rivals that the combined entity decided to foreclose, which would make foreclosure even less likely.

(2093) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 110 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2094) Nevertheless, the Commission considers that the combined entity would not have the incentive to foreclose its downstream rivals by restricting access to consolidated non-real-time pricing and reference data in certain markets where the relationship between the input and downstream market pre-dates the Transaction. This is the case for the downstream markets of CRTDs, convertible bonds indices and trading of OTC IRDs and D2C government bonds, the Commission notes that the vertical link between consolidated non-real-time pricing and reference data and the above markets is pre-existing, as Refinitiv is active both upstream and downstream, while the increment brought by the Transaction to Refinitiv's downstream market share is very limited, as shown in Table 110 above. Thus, the Commission considers that the incentives of the combined entity will not change significantly as a result of the Transaction.

2486 Non-Horizontal Merger Guidelines, paragraph 34.

2487 For instance, out of 10 possible parameters, data vendors consider that historic depth of data (which would be provided by CNPRDs) is the least important parameter for end-customers selecting CRTDs (Question 47, Questionnaire 8 to data vendors, Doc ID 6479). For this reason, packaged solutions of non-real time data, such as CNPRDs, cannot be considered to be a key input to CRTDs.

2488 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors, Doc ID 6466 or Question 82 in Questionnaire 9 to information services end-customers, Doc ID 6480.

2489 Non-Horizontal Merger Guidelines, paragraph 35.

(2095) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets listed in Table 110, following an input foreclosure strategy consolidated non-real-time pricing and reference data.

4.5.31.2. Customer foreclosure

A. The Notifying Party's view

(2096) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in non-real-time pricing and reference data by restricting access to its demand in the downstream markets listed in Table 110 above. According to the combined entity, competitors upstream are not reliant on the Parties' downstream business as a route to market, and that there are many alternatives in the downstream segments such that suppliers are not dependent on the Parties' purchases. In addition, consolidated non-real-time pricing and reference data is sold to a much wider range of downstream customers. By way of example, LSEG's purchases of consolidated non-real-time pricing and reference data are negligible in the context of the overall market for this product. Moreover, the limited increments brought by LSEG in the markets of CRTDs, convertible bonds indices, and the trading of OTC IRDs and D2C government bonds post-Transaction is unlikely to meaningfully alter the combined entity's incentives to engage in customer foreclosure in these markets.[2490]

B. The Commission's assessment

(2097) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for consolidated non-real-time pricing and reference data from access to a sufficient customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of this product for the following reason:

(a) LSEG's purchases of consolidated non-real-time pricing and reference data represent [0-5]% of the worldwide market size for consolidated non-real-time pricing and reference data in 2018.[2491] This means that the upstream rivals will continue to have access to more than [90-100]% of the worldwide customer base for consolidated non-real-time pricing and reference data post-Transaction.

(b) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for consolidated non-real-time pricing and reference data post-merger.[2492] The players in the downstream markets listed in Table 110 above are not the only purchasers of consolidated non-real-time pricing and reference data. This product is used for a wide range of products, namely for desktop services, ESG indices, equity indices, or money markets indices, among others. Post-Transaction, there will remain several purchasers in markets other than the downstream markets in Table 110

2490 Form CO, paragraphs D.644 and D.674.

2491 Form CO, table 97.

2492 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

above, to whom upstream rivals can sell consolidated non-real-time pricing and reference data.

(2098) As the Commission finds that the combined entity would have no ability to foreclose rivals in consolidated non-real-time pricing and reference data, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2099) Nevertheless, the Commission considers that, as Refinitiv is already integrated in the distribution of consolidated non-real-time pricing and reference data upstream, and the distribution of CRTDs and convertible bonds indices, as well as in trading of OTC IRDs and D2C government bonds downstream, the combined entity is unlikely to have a significant change in its incentives to foreclose providers of consolidated non-real-time pricing and reference data with respect to these downstream markets as a result of the Transaction.

(2100) As regards impact, any customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the market for consolidated non-real-time pricing and reference data. In the market investigation, 58% of informative respondents take the view that the Transaction would have a neutral or even positive impact on the market for consolidated non-real-time pricing and reference data.[2493]

(2101) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on consolidated non-real-time pricing and reference data, following a customer foreclosure strategy in the downstream markets listed in Table 110 above.

4.5.32. Consolidated real-time datafeeds (upstream) – desktop services, indices (convertible bonds, ESG, equities, FX, fixed income, money markets, multi-asset and real estate), clearing (CDS, commodities, OTC IRDs, D2D cash bonds, cash equities, cash equities:ETPs, equity derivatives, OTC FX), , and trading of cash equities: ETPs and cash equities: company-issued equities (downstream)

(2102) The Transaction gives rise to vertically affected markets regarding CRTDs (upstream) and a number of markets downstream: desktop services; indices (convertible bonds, ESG, equities, FX, fixed income, money markets, multi-asset and real estate); clearing (CDS, commodities, OTC IRDs, D2D cash bonds, cash equities, cash equities:ETPs, equity derivatives, OTC FX); and trading of cash equities: ETPs and cash equities: company-issued equities (downstream). Upstream, in the market for CRTDs, and its possible sub-segments, Refinitiv is active. The downstream markets vertically linked with CRTDs are listed in the table below.[2494]

2493 Question 81 of Questionnaire 9 to information services end-customers, Doc ID 6480.

2494 For completeness, the Transaction also technically gives rise to a vertical overlap between the market for CRTDs (upstream) and the market for desktop services (downstream). However, in this downstream market, Refinitiv is already present today and LSEG's presence is limited (market share of [0-5]% in 2019). The Commission considers that the Transaction will not change the combined entity's ability or incentive to engage in input foreclosure in these markets (Form CO, Information Services, footnote 481).

Table 111

Vertical Links involving CRTDs upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Consolidated real-time datafeeds (worldwide)	Refinitiv	[40-50]%	Clearing services for OTC IRDs (worldwide)[2495]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for cash equities (EEA)[2496]	LSEG	[40-50]% (by value) [50-60]% (by volume)
			Clearing services for D2D cash bonds (EEA)[2497]	LSEG	[90-100]%
			Clearing services for ATS-traded non-triparty repos (EEA)[2498]	LSEG	[90-100]%
			Clearing services for OTC equity derivatives (EEA)[2499]	LSEG	[0-5]% (by number of contracts traded) [5-10]% (by notional volume traded)
			Clearing services for commodities (worldwide)[2500]	LSEG	[0-5]%
			Clearing services for OTC CDS (EEA)[2501]	LSEG	[20-30]%
			Clearing OTC FX products (EEA)	LSEG	[90-100]%
			Convertible bond indices (worldwide)	Refinitiv	[30-40]%
				LSEG	[0-5]%
			Real estate indices (worldwide)	LSEG	[30-40]%
			ESG indices (worldwide)	Refinitiv	[0-5]%
				LSEG	[10-20]%
			Equity indices (worldwide) - UK - European - Global	Refinitiv	- N.a. - [0-5]% - [0-5]%
				LSEG	- [80-90]% - [10-20]% - [10-20]%

2495 See Table 42 and Table 43 above.

2496 See Table Table 73 above.

2497 See Table 8 above.

2498 RFI 48 reply, question 1. LSEG's presence in the other segments of repos clearing (namely the CCP clearing of ATS-traded triparty repos and the CCP clearing of non-ATS-traded repos) is minimal, with market shares below [5-10]%.

2499 See Table 69 above.

2500 RFI 46 reply, question 3. LSEG's 2019 share in this market worldwide was [0-5]% (by number of contracts traded); [0-5]% (notional value); and [0-5]% (by number of outstanding contracts). LSEG's 2019 share in this market in the EEA was [0-5]% (by number of contracts traded); [0-5]% (notional value); and [0-5]% (by number of outstanding contracts).

2501 See Table 67 above.

Vertical Links involving CRTDs upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
			Equity indices (worldwide) - UK - European - Global	Refinitiv	- N.a. - [0-5]% - [0-5]%
				LSEG	- [80-90]% - [10-20]% - [10-20]%
			Multi-asset indices (worldwide)	Refinitiv	[0-5]%
				LSEG	[10-20]%
			Fixed income indices (worldwide)	Refinitiv	[0-5]%
				LSEG	[10-20]%
			Money markets indices (worldwide)	Refinitiv	[0-5]%
				LSEG	[20-30]%
			FX indices (worldwide)	Refinitiv	[…]
				LSEG	[…]
			Trading services for cash equities – company issued stock (EEA)[2502]	LSEG	[30-40]% (by volume) [20-30]% (by value)
				Refinitiv	[0-5]% (by volume) [0-5]% (by value)
			Trading services for cash equities – ETPs (EEA)[2503]	LSEG	[30-40]% (by volume) [10-20]% (by value)
				Refinitiv	[0-5]% (by volume and by value)

Source: Form CO.

(2103) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table **111** above.

2502 See Table 71 and Table 72 above.

2503 See Table 70 above.

4.5.32.1. Input foreclosure in trading and clearing markets

A. The Notifying Party's view

(2104) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to CRTDs to rivals in the downstream clearing and trading markets listed in Table **111** above. The Notifying Party notes that CRTDs are not a primary input for trading or clearing services, as the use of real time price data other than the one generated by trading services themselves is used only as a reference in certain circumstances. The Notifying Party highlights that alternative providers of CRTDs are available, such as Bloomberg or ICE, such that an attempt to gain a competitive advantage by foreclosing access to CRTDs would be futile. Morever, an attempt to restrict access to Refinitiv's CRTDs would jeopardise its commercial relationships with its customers, who could retaliate by not providing their venue data to Refinitiv, and thus weakening Refinitiv's CRTDs. In addition, Refinitiv is already vertically integrated in the provision of CRTDs and trading services, and it hasn't stopped providing rival providers of trading services with CRTDs. The lack of incentive to foreclose downstream competitors will not change post-Transaction.[2504]

B. The Commission's assessment

(2105) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream trading and clearing markets listed in Table **111** above. Input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2505] However, CRTD are not an important input for any of the trading and clearing downstream markets listed in Table **111** above:

(a) CRTDs does not constitute a critical component without which downstream products could not be developed or effectively sold in the market. Instead, trading venues focus on their own trading data, using CRTDs only as reference. Similarly, clearing houses make use of direct feeds to the trading venues to deliver their services. For trading venues and clearing houses CRTDs is not an important input for the provision of their services to customers.[2506]

(b) Moreover, the market investigation did not provide any evidence that CRTDs are an important input for any of these markets. Particularly, regarding CCPs, Eurex, mentioned that "*access to Refinitiv's consolidated real-time data-feed is not particularly important for CCPs such as EurexOTC Clear*"[2507] Similarily, neither CME, nor Comder ("*Currently ComDer does not use Refinitiv's consolidated real-time data feed or FX benchmark WM/R.*") use Refinitiv's CRTDs.[2508] KDPW uses Refinitiv's data, but not on a daily basis ("*We have access to data provided by Refinitiv but we do not use it on a daily basis.*").[2509]

2504 Form CO, paragraphs D.718-722.

2505 Non-Horizontal Merger Guidelines, paragraph 34.

2506 For instance, CCP provider BME expressed that Refinitiv is "*just the vendor who disseminates the figures from the benchmark administrators. Other vendors could supply the IR benchmark figures to us*" (Doc ID 5937), while CCP provider KDPW indicated that "*we treat them as a back-up source of data*" (Doc ID 6101), and HKEX submitted that "*we consider Refinitiv's products as important but not essential*" (Doc ID 5377).

2507 Question 7, Questionnaire to OTC IRD clearing competitors, response of Eurex, Doc ID 6063.

2508 Question 7, Questionnaire to OTC IRD clearing competitors, responses of CME and Comder Doc IDs 5434 and 5266.

2509 Question 7, Questionnaire to OTC IRD clearing competitors, responses of KDPW, Doc ID 6101.

> Given that several downstream competitors (including LCH SwapClear's two main competitors in OTC IRD clearing, namely CME and Eurex) do not even make use of CRTDs in the context of the clearing of OTC IRDs, CRTD cannot be considered as an important input for the provision of the downstream clearing services.[2510]

(2106) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream trading and clearing markets listed in Table **111** above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2107) Nevertheless, the Commission considers that the combined entity would not have the incentive to foreclose its downstream rivals by restricting access to CRTDs. As CRTDs are not important inputs to trading venues and clearing houses, the benefit for the combined entity to engage in an input foreclosure strategy is unclear, as it is unlikely to lead to a disadvantaging of rival trading venues or clearing houses. Following a theoretical foreclosure strategy, customers in these markets could switch to one of the available competitors, such as Bloomberg, IHS Markit, or ICE (with EEA market shares of [20-30]%, [5-10]% and [0-5]% respectively in 2019), and thus would only be disadvantaged by the cost of having to switch providers, limiting the impact of such a foreclosure strategy.

(2108) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream trading and clearing markets listed in Table **111**, following an input foreclosure strategy CRTDs.

4.5.32.2. Input foreclosure in index licensing

A. The Notifying Party's view

(2109) Concerning index licensing, the Notifying Party submits that the same arguments as for trading and clearing apply. The Notifying Party argues that nothing suggests that the merged would be incentivised to refuse to supply or worsen the terms or conditions of access to CRTDs to index providers. In particular, index providers could turn to alternative providers of CRTDs such as Bloomberg or ICE, and if the Notifying Party pursued a foreclosure strategy it could be subject to close regulatory scrutyny or competitor retaliation which would discourage such behaviour. [2511]

B. The Commission's assessment

(2110) The Commission considers that post-Transaction the combined entity could have the ability to foreclose its rivals in the downstream index licensing markets listed in Table **111** above.

(2111) *First*, for index providers, CRTDs are an important input for their operations:[2512]

2510 Non-Horizontal Merger Guidelines, paragraph 34.

2511 Form CO, paragraphs D.730ff.

2512 Non-Horizontal Merger Guidelines, paragraph 34.

(a) CRTDs are particularly important for index providers to be able to calculate proprietary or third-party indices in real-time. This is relevant for certain types of indices, such as equity indices, for which CRTDs are among the top inputs.[2513]

(b) 36% of informative index providers indicated that access to Refinitiv's CRTDs was essential for them to design and license indices, whereas for 54% of them Refinitiv's CRTDs are an important input to design and license their indices. Only 10% of informative index providers indicated that Refinitiv's CRTDs are not important for them.[2514]

(c) Moreover, for 89% of end-customers, switching costs for CRTDs are significant or very significant.[2515]

(2112) *Second*, according to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2516] In the present case, as explained in Section […] above, Refinitiv is dominant in the upstream market of CRTDs, with a [40-50]% market share globally. The combined entity would therefore enjoy a significant degree of market power in the upstream market and could have the ability to engage in an input foreclosure strategy.

(2113) However, even as the combined entity could have the ability to foreclose its competitors in the downstream index licensing markets listed in Table **111** above, the Commission considers that the combined entity is unlikely to have the incentive to pursue such a strategy – or indeed that such a strategy would significantly impact downstream rivals.

(2114) *First*, while Refinitiv is the dominant CRTD provider, for index providers Refinitiv is not the only suitable provider of CRTDs. When asked, index providers indicated that the top criteria they take into account when selecting CRTD providers are reliability and quality, with wide coverage and price also being important. The index providers' responses to the Commission's market investigation indicate that Refinitiv, Bloomberg and ICE all meet these criteria. Thus, a foreclosure strategy would be thwarted by the existence of competitors who index providers consider to be equally viable to meet their needs.[2517] Even if switching costs for index providers would be high, nothing in the market investigation suggested that incurring in such high switching costs would impact their ability to compete effectively in their index licensing segments.

(2115) *Second*, for certain overlaps, Refinitiv is already active both upstream in CRTDs and in the downstream market. This is the case for convertible bond indices, money market indices, where the increment brought by the Transaction is [0-5]% or less. Such a limited increment is unlikely to change the incentives of the combined entity to engage in input foreclosure.

(2116) *Third*, once Refinitiv provides CRTD access to index providers, it cannot control how these CRTDs are used by such a provider. This means that the only way that the combined entity could improve its position in the downstream index markets where it

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2513 Questions 5, 6, 7, and 8 in Questionnaire 20 to index providers, Doc ID 6471.
2514 Question 17.1, Questionnaire 20 to index providers, Doc ID 6471.
2515 Question 32, Questionnaire 9 to information services end-customers, Doc ID 6480.
2516 Non-Horizontal Merger Guidelines, paragraph 35.
2517 Question 12, Questionnaire 20 to index providers, Doc ID 6471.

is active is by refusing to sell CRTDs to index providers, regardless of the usage that they will give to them.[2518] As index providers account for [a small percentage] of Refinitiv's total sales in CRTDs for 2018, or EUR […],[2519] the combined entity faces very large potential loses by foreclosing access to its CRTDs to rival index providers.

(2117) Therefore, even if the combined entity could have the ability to foreclose access to CRTDs to index providers downstream, the existence of alternatives that can meet index provider's most valued parameters, the lack of merger-specificity for certain overlaps, and the potential to incur in heavy loses make it unlikely that the combined entity would have the incentive to pursue a foreclosure strategy, or that such a strategy would significantly impact downstream rivals.

(2118) Consequently, in view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream index licensing markets listed in Table **111**, following an input foreclosure strategy CRTDs.

4.5.32.3. Customer foreclosure in trading and clearing markets

A. The Notifying Party's view

(2119) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in CRTDs by restricting access to its demand in the downstream trading and clearing markets listed in Table **111** above. The Notifying Party indicates that trading and clearing markets are not an important or critical route to market for the competitors that the Parties face upstream. The use cases for CRTDs are far more extensive than for use by trading venues and clearing houses. Moreover, the costs of CRTD providers are unlikely to materially vary if a single and minor distribution channel is lost, meaning that there is no propect that a rival CRTD provider would be marginalized as a competitor if it lost the demand from the combined entity's trading and clearing services.[2520]

B. The Commission's assessment

(2120) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for CRTDs from access to a sufficient customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of this product for the following reason:

(a) LSEG's purchases of CRTDs for trading and clearing purposes represent a very small fraction of the worldwide market for CRTDs. For example, LSEG's clearing house LCH spent […] in data 2018, [2521] or approximately [0-5]% of the worldwide market for CRTDs. This means that the upstream rivals will continue to have access to [90-100]% of the worldwide customer base for CRTD data post-Transaction.

2518 Notifying Party's response to the decision pursuant to Article 6(1)(c) decision, footnote 255.
2519 Form CO, paragraph D.736.
2520 Form CO, paragraph D.726.
2521 Form CO, table 97.

(b) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for CRTDs post-merger.[2522] The players in the downstream trading and clearing markets listed in **Table 111** above are not the only purchasers of CRTDs. This product is used for a wide range of products, namely for desktop services, index licensing, and by a wide variety of end-customers for trading, asset management, or research applications, among many other uses. Post-Transaction, there will remain many potential customers in markets other than the downstream markets in Table **111** above, to whom upstream rivals can sell CRTDs.

(2121) As the Commission finds that the combined entity would have no ability to foreclose rivals in CRTDs, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2122) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on CRTD, following a customer foreclosure strategy in the downstream trading and clearing markets listed in Table **111** above.

4.5.32.4. Customer foreclosure in index licensing

A. The Notifying Party's view

(2123) The Notifying Party submits that the combined entity would not have the ability or incentive to foreclose competitors in CRTDs by restricting access to its demand in the downstream index licensing markets listed in Table **111** above. The Notifying Party indicates that the Parties face a number of competitors in index licensing, including MSCI, S&P or Bloomberg, and thus are not an important or irreplaceable route to market for the Parties' competitors in CRTDs. It also highlights that the use cases for CRTDs are more extensive than just to index licensing, such that CRTD rivals would not lose an important route to market in the event of foreclosure. Finally, the Notifying Party also submits that rivals' costs would not be affected if they were to lose a minor distribution channel such as index licensing.[2523]

B. The Commission's assessment

(2124) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for CRTDs from having access to a sufficient customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of this product for the following reason:

(a) Purchases of CRTD data by index providers do not represent a majority of the purchases of CRTD products in the market. According to the Notifying Party, purchases of Refinitiv's CRTDs by index providers accounted for [a small percentage] of its total sales of CRTDs in 2018. [2524] As LSEG is only one of the several index providers that consume CRTDs (which includes other large players such as S&P and MSCI), the share of purchases of CRTDs represented by the index licensing branch of LSEG is likely to be significantly lower than

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2522 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2523 Form CO, paragraphs D.733ff.

2524 Form CO, paragraph D.7436.

[a small percentage] of the total CRTD purchases in the market. Even in the unlikely scenario that LSEG accounts for the majority of CRTD purchases by index providers, upstream rivals would continue to have access to more than [a high percentage] of the worldwide customer base for CRTDs post-Transaction.

(b) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for CRTDs post-merger.[2525]. The players in the downstream index licensing markets listed in **Table 111** above are not the only purchasers of CRTDs. This product is used for a wide range of products, namely for desktop services, trading and clearing, and by a wide variety of end-customers for trading, asset management, or research applications, among many other uses. Post-Transaction, there will remain many potential customers in markets other than the downstream markets in Table **111** above, to whom upstream rivals can sell CRTDs.

(2125) As the Commission finds that the combined entity would have no ability to foreclose rivals in consolidated non-real-time pricing and reference data, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2126) Nevertheless, the Commission considers that the combined entity would not have the incentive to foreclose its upstream rivals. In particular, for some of the overlaps there is a pre-existing link between CRTDs and some products downstream, where Refinitiv is active at both levels. These markets are convertible bond indices and money market indices. For these three markets, the increment brought by the Transaction is equal to or smaller than [0-5]%. In this context, for these markets it is unlikely that the Transaction would significantly change the incentives to foreclose rivals in the upstream market for CRTDs.

(2127) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on CRTDs, following a customer foreclosure strategy in the downstream index licensing markets listed in Table **111** above.

4.5.33. Fundamentals data (upstream) – Clearing of IRDs, cash bonds and cash equities (downstream)

(2128) The Transaction gives rise to vertically affected markets regarding fundamentals data (upstream) and clearing of IRDs, cash bonds and cash equities (downstream). Upstream, in the market for fundamentals data, and its possible sub-segments, LSEG and Refinitiv are active. The downstream markets vertically linked with fundamentals data are listed in the table below.

2525 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

Table 112

Vertical Links involving fundamentals data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Fundamentals data (worldwide)[2526]	Refinitiv	[10-20]%	Clearing services for OTC IRDs (worldwide)[2527]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for cash equities (EEA)[2528]	LSEG	[40-50]% (by value) [50-60]% (by volume)
			Clearing services for D2D cash bonds (EEA)[2529]	LSEG	[90-100]% (by value)

Source: Form CO.

(2129) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 112 above.

4.5.33.1. Input foreclosure

A. The Notifying Party's view

(2130) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to fundamentals data to rivals in the downstream markets listed in Table 112 above. According to the Notifying Party, the combined entity would not have the ability to foreclose upstream rivals because fundamentals data is not an important input to competing rival house's core business activities. In addition, it submits that for fundamentals data there are multiple alternatives available to rival clearing houses, and that Refinitiv faces robust competition from other data vendors upstream. The Notifying Party concludes that for these reasons, a foreclosure strategy could not result in the marginalisation or exclusion of rival clearing houses.[2530]

B. The Commission's assessment

(2131) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 112 above.

(2132) *First,* based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product. However, fundamentals data are not an important input for any of the downstream markets listed in Table 112above:

2526 In a plausible EEA-wide market for Fundamentals Data, the market share of Refinitiv in 2019 was [10-30]%.

2527 See Table 42 and Table 43 above.

2528 See Table Table 73 above.

2529 See Table 8 above.

2530 Form CO, paragraphs D.705-707.

(a) Fundamentals data do not constitute a critical component without which downstream products could not be developed or effectively sold in the market. Fundamentals data are data that describe financial and factual elements of a company. These data are not a critical component for CCPs to provide their clearing services. For this reason, fundamentals data are not a significant source of product differentiation for any of the downstream markets listed in Table 112 above; and

(b) The market investigation did not provide any evidence that fundamentals data are an important input for any of the downstream markets listed in Table 112above. [2531]

(2133) *Second*, according to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2532] In the present case, the combined entity would lack post-Transaction the market power upstream that would give it the ability to foreclose rivals in the downstream markets. In fundamentals data, the combined entity held a share of [10-20]% at worldwide level and of [10-30]% at EEA level in 2019. Post-Transaction, the combined entity will continue to be constrained by several rivals in fundamentals data, such as Bloomberg, S&P Global and Factset.[2533] These players could expand output to supply the fundamentals data for any downstream rivals that the combined entity decided to foreclose.

(2134) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 112 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2135) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for clearing of IRDs, cash bonds and cash equities, following an input foreclosure strategy involving fundamentals data.

4.5.33.2. Customer foreclosure

A. The Notifying Party's view

(2136) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in fundamentals data, by restricting access to its demand in the downstream markets listed in Table 112 above. According to the Notifying Party, the combined entity would not have the ability to foreclose rivals because [description of commercial relationship between LSEG and Refinitiv], which would limit any merger-specific effects from a customer foreclosure strategy. Moreover, clearing houses are a small subset of the overall customer base for fundamentals data, meaning that if LSEG stops purchasing from Refinitiv's rivals,

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2531 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors, Doc ID 6466.

2532 Non-Horizontal Merger Guidelines, paragraph 35.

2533 In 2019, in a worldwide market for fundamentals data, Bloomberg held a share of [20-40]%; S&P's share was [10-20]%; and FactSet's share was [10-20]%. In the same year, in an EEA-wide market for fundamentals data, Bloomberg held a share of [30-40]%; S&P's share was [10-20]%; and FactSet's share was [10-20]%.

there would be other customers who could purchase the fundamentals data from upstream rivals.[2534]

B. The Commission's assessment

(2137) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for fundamentals data from access to a sufficient customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of fundamentals data for the following reasons:

(a) LSEG's purchases of Refinitiv data for its CCPs only represent [0-5]% of the total demand for fundamentals data in the EEA in 2019. As [description of commercial relationship between LSEG and Refinitiv], the upstream rivals will continue to have access to [90-100]% of the EEA customer base for fundamentals data post-Transaction.

(b) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for fundamentals data post-merger.[2535] The players in the downstream markets listed in Table 112 above are not the only purchasers of fundamentals data. Fundamentals data is used for a wide range of products besides clearing services, namely for indices, desktop services, non-real-time datafeed services, or sector classification schemes, among others. Post-Transaction, there will remain several purchasers in markets other than the downstream markets in Table 112 above, to whom upstream rivals can sell fundamentals data..

(2138) As the Commission finds that the combined entity would have no ability to foreclose rivals in fundamentals data, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2139) Nevertheless, the Commission considers that, as regards impact, any customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the market for fundamentals data. In the Commission's market investigation, 67% of informative end-customers expressed that the Transaction would not have an impact on discrete content sets, including in fundamentals data.[2536]

(2140) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on fundamentals data, following a customer foreclosure strategy in the downstream markets listed in Table 112 above.

4.5.34. Tick History (upstream) – Clearing of commodities, IRDs, cash bonds, cash equities, equity derivatives, OTC FX, ATS-traded non-triparty repos and credit default swaps (downstream)

(2141) The Transaction gives rise to vertically affected markets regarding tick history (upstream) and clearing of commodities, IRDs, cash bonds, cash equities, equity derivatives, OTC IRDs, ATS-traded non-triparty repos and credit deault swaps (downstream). Upstream, in the market for tick history, and its possible sub-

2534 Form CO, paragraphs D.708 and D.709.

2535 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2536 Question 84, Questionnaire 9 to information services end-customers, Doc ID 6480.

segments, Refinitiv is active. The downstream markets vertically linked with tick history are listed in the table below.[2537]

Table 113

Vertical Links involving tick history upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Tick History (worldwide)	Refinitiv	[30-40]%	Clearing services for OTC IRDs (worldwide)[2538]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for cash equities (EEA)[2539]	LSEG	[40-50] (by value) [50-60] (by volume)
			Clearing services for D2D cash bonds (EEA)[2540]	LSEG	[90-100]% (by value)
			Clearing services for commodities (worldwide)[2541]	LSEG	[0-5]%
			Clearing services for OTC equity derivatives (EEA)[2542]	LSEG	[0-5]% (by number of contracts traded) [5-10]% (by notional volume traded)
			Clearing services for OTC CDS (EEA)[2543]	LSEG	[20-30]%
			Clearing services for OTC FX (EEA)	LSEG	[90-100]%
			Clearing services for ATS-traded non-triparty repos (EEA)[2544]	LSEG	[90-100]%

Source: Form CO.

(2142) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 113 above.

2537 For completeness, tick history is also vertically linked with non-real-time datafeeds and desktop services, where LSEG has a *de minimis* share with its product Mergent. However, given the specialist nature of LSEG's products, they do not use tick history as a relevant input, and therefore no merger specific link arises in this regard (Form CO, footnote 458).

2538 See Table 42 and Table 43 above.

2539 See Table Table 73 above.

2540 See Table 8 above.

2541 RFI 46 reply, question 3. LSEG's 2019 share in this market worldwide was [0-5]% (by number of contracts traded); [0-5]% (notional value); and [0-5]% (by number of outstanding contracts). LSEG's 2019 share in this market in the EEA was [0-5]% (by number of contracts traded); [0-5]% (notional value); and [0-5]% (by number of outstanding contracts).

2542 See Table 69 above.

2543 See Table 67 above.

2544 RFI 48 reply, question 1. LSEG's presence in the other segments of repos clearing (namely the CCP clearing of ATS-traded triparty repos and the CCP clearing of non-ATS-traded repos) is minimal, with market shares [0-5]%.

4.5.34.1. Input foreclosure

A. The Notifying Party's view

(2143) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to tick history to rivals in the downstream markets listed in Table 113 above. According to the Notifying Party, the combined entity would not have the ability to foreclose upstream rivals because tick history is not an important input to competing rival house's core business activities, and it is used only in support of them (e.g. for market monitoring purposes). In addition, it submits that for tick history there are multiple alternatives available to rival clearing houses, and that Refinitiv faces robust competition from other data vendors upstream. The Notifying Party concludes that for these reasons, a foreclosure strategy could not result in the marginalisation or exclusion of rival clearing houses downstream.[2545]

B. The Commission's assessment

(2144) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 113above.

(2145) *First*, based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[2546] However, tick history are not an important input for any of the downstream markets listed in Table 113 above:

(a) Tick history does not constitute a critical component without which downstream products could not be developed or effectively sold in the market. As described by the Notifying Party, its clearing houses only use tick history to monitor the market, and not to perform any of the functions that are core to its business.[2547] For the same reason, tick history is not a significant source of product differentiation for any of the downstream markets listed in Table 113 above; and

(b) The market investigation did not provide any evidence that tick history are an important input for any of the downstream markets listed in Table 113 above.[2548]

(2146) *Second*, post-Transaction, the combined entity will continue to be constrained by several rivals in tick history, such as Morningstar, Bloomberg and Deutsche Boerse (each holding a market share of [5-20]%, [0-10]% and [0-5]% respectively in the EEA for 2019). These players could expand output to supply tick history for any downstream rivals that the combined entity decided to foreclose.

(2147) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 113 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2148) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition

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2545 Form CO, paragraphs D.705-707.
2546 Non-Horizontal Merger Guidelines, paragraph 34.
2547 Form CO, paragraph D.706.
2548 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors, Doc ID 6466.

in the downstream markets listed in Table 113, following an input foreclosure strategy involving tick history.

4.5.34.2. Customer foreclosure

A. The Notifying Party's view

(2149) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in tick history, by restricting access to its demand in the downstream markets listed in Table 113 above. According to the Notifying Party, the combined entity would not have the ability to foreclose rivals because [description of commercial relationship between LSEG and Refinitiv], which would limit any merger-specific effects from a customer foreclosure strategy. Moreover, clearing houses are a small subset of the overall customer base for tick history, meaning that if LSEG stops purchasing from Refinitiv's rivals, there would be other customers who could purchase the tick history from upstream rivals.[2549]

B. The Commission's assessment

(2150) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for tick history from access to a sufficient customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of tick history for the following reason:

(a) LSEG's purchases of Refinitiv data for its CCPs only represent a maximum of [a small percentage] of the total demand for tick history in the EEA in 2019, and less than [a very small percentage] of the demand at worldwide level. As [description of commercial relationship between LSEG and Refinitiv], the upstream rivals will continue to have access to more than [a very high percentage] of the EEA customer base for tick history post-Transaction.

(b) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for tick history post-merger.[2550] The players in the downstream markets listed in Table 113 above are not the only purchasers of tick history. Tick history is used for a wide range of products besides clearing services, namely for desktop services or for non-real-time datafeed services. Post-Transaction, there will remain several purchasers in markets other than the downstream markets in Table 113 above, to whom upstream rivals can sell tick history.

(2151) As the Commission finds that the combined entity would have no ability to foreclose rivals in tick history, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2152) Nevertheless, the Commission considers that, as regards impact, any customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the market for tick history. In the market investigation, 70% of informative respondents take the view that the Transaction would have a neutral or even positive impact on the market for tick history.[2551]

2549 Form CO, paragraphs D.708 and D.709.

2550 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

2551 Question 66 of Questionnaire 9 to information services end-customers.

(2153) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on tick history, following a customer foreclosure strategy in the downstream markets listed in Table 113 above.

4.5.35. Time series of economic data (upstream) – Clearing of IRDs, cash bonds and cash equities (downstream)

(2154) The Transaction gives rise to vertically affected markets regarding time series of economic data (upstream) and clearing of IRDs, cash bonds and cash equities (downstream). Upstream, in the market for fundamentals data, and its possible sub-segments, LSEG and Refinitiv are active. The downstream markets vertically linked with fundamentals data are listed in the table below.

Table 114

Vertical Links involving time series of economic data upstream					
Upstream market	**Party/Parties active**	**Market share (2019)**	**Downstream market**	**Party/Parties active**	**Market share (2019)**
Time series of economic data (worldwide)[2552]	Refinitiv	[10-20]-[20-30]%	Clearing services for OTC IRDs (worldwide)[2553]	LSEG	[70-80]% (by volumes outstanding) [90-100]% (by volumes cleared)
			Clearing services for cash equities (EEA)[2554]	LSEG	[40-50]% (by value) [50-60]% (by volume)
	LSEG	[0-5]%	Clearing services for D2D cash bonds (EEA)[2555]	LSEG	[90-100]% (by value)

Source: Form CO.

(2155) The remainder of this Section examines together the vertical links between the same upstream market and the different downstream markets listed in Table 114 above.

4.5.35.1. Input foreclosure

A. The Notifying Party's view

(2156) The Notifying Party submits that the combined entity would have neither the ability nor the incentive to restrict access to time series of economic data to rivals in the downstream markets listed in Table 114 above. According to the Notifying Party, the combined entity would not have the ability to foreclose upstream rivals because time series of economic data is not an important input to competing rival house's core business activities. In addition, it submits that for time series of economic data there are multiple alternatives available to rival clearing houses, and that Refinitiv faces robust competition from other data vendors upstream. The Notifying Party concludes

2552 In a plausible EEA-wide market for time series of economic data, the market share of Refinitiv in 2019 was [20-30]% and of LSEG [0-5]%.
2553 See Table 42 and Table 43 above.
2554 See Table Table 73 above.
2555 See Table 8 above.

that for these reasons, a foreclosure strategy could not result in the marginalisation or exclusion of rival clearing houses..[2556]

B. The Commission's assessment

(2157) The Commission considers that post-Transaction the combined entity would not have the ability to foreclose its rivals in the downstream markets listed in Table 114 above.

(2158) *First,* based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product. [2557] However, time series of economic data are not an important input for any of the downstream markets listed in Table 114 above:

(a) Time series of economic data do not constitute a critical component without which downstream products could not be developed or effectively sold in the market. Time series of economic data are not a critical component for CCPs to provide their clearing services, and even within LSEG's clearing houses, certain among them do not currently use time series of economic data within their organisation. For this reason, time series of economic data are not a significant source of product differentiation for any of the downstream markets listed in Table 114 above; and

(b) The market investigation did not provide any evidence that time series of economic data are an important input for any of the downstream markets listed in Table 114 above. [2558]

(2159) *Second,* according to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[2559] In the present case, the combined entity would lack post-Transaction the market power upstream that would give it the ability to foreclose rivals in the downstream markets. In time series of economic data, the combined entity held a share of [10-30]% at worldwide level, and of [20-30]% at EEA level in 2019. Post-Transaction, the combined entity will continue to be constrained by several rivals in fundamentals data, such as Bloomberg, Factset, and IHS Markit (with market shares of [30-50]%, [10-20]%, and [5-10]% respectively in the EEA for 2019). These players – one of which is the market leader, and the other having a market share comparable to the combined entity – could expand output to supply the time series of economic data for any downstream rivals that the combined entity decided to foreclose.

(2160) As the Commission finds that the combined entity would have no ability to foreclose competitors in the downstream markets listed in Table 114 above, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2161) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition

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2556 Form CO, paragraphs D.705-707.

2557 Non-Horizontal Merger Guidelines, paragraph 34.

2558 See, for instance, responses to Question 18, Questionnaire 16 to general clearing competitors, Doc ID 6466.

2559 Non-Horizontal Merger Guidelines, paragraph 35.

in the downstream markets for clearing of IRDs, cash bonds and cash equities, following an input foreclosure strategy involving time series of economic data.

4.5.35.2. Customer foreclosure

A. The Notifying Party's view

(2162) The Notifying Party submits that the combined entity would not have the ability or the incentive to foreclose competitors in time series of economic data, by restricting access to its demand in the downstream markets listed in Table 114 above. According to the Notifying Party, the combined entity would not have the ability to foreclose rivals because [description of commercial relationship between LSEG and Refinitiv], which would limit any merger-specific effects from a customer foreclosure strategy. Moreover, clearing houses are a small subset of the overall customer base for time series of economic data, meaning that if LSEG stops purchasing from Refinitiv's rivals, there would be other customers who could purchase the time series of economic data from upstream rivals.[2560]

B. The Commission's assessment

(2163) The Commission considers that post-Transaction the combined entity would not have the ability to prevent its rivals in the market for time series of economic data from access to a sufficient customer base. According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input. But the Commission finds that this will not be the case post-Transaction with the combined entity as a purchaser of time series of economic data for the following reasons:

(a) LSEG's purchases of Refinitiv data for its CCPs only represent [a very small percentage] of the total demand for time series of economic data in the EEA in 2019. As [description of commercial relationship between LSEG and Refinitiv], the upstream rivals will continue to have access to [a very high percentage] of the EEA customer base for time series of economic data post-Transaction.

(b) The existence of different uses for the upstream product can ensure that a sufficiently large customer base would remain for time series of economic data post-merger.[2561] The players in the downstream markets listed in Table 114 above are not the only purchasers of time series of economic data. Time series of economic data is used for a wide range of products besides clearing services, namely for desktop services and for non-real-time datafeed services. Post-Transaction, there will remain several purchasers in markets other than the downstream markets in Table 114 above, to whom upstream rivals can sell time series of economic data.

(2164) As the Commission finds that the combined entity would have no ability to foreclose rivals in time series of economic data, it is not necessary to assess the incentives of the combined entity or the overall impact of the Transaction on competition.

(2165) Nevertheless, the Commission considers that, as regards impact, any customer foreclosure strategy is unlikely to have a significant detrimental effect on competition in the market for time series of economic data. In the Commission's market investigation, 67% of informative end-customers expressed that the

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2560 Form CO, paragraphs D.708 and D.709.

2561 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

Transaction would not have an impact on discrete content sets, including in time series of economic data.[2562]

(2166) In view of the above considerations and in light of the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition on time series of economic data, following a customer foreclosure strategy in the downstream markets listed in Table 114 above.

4.5.36. Provision of Trading (upstream) and Clearing (downstream) Services for Over-The-Counter Interest-Rate Derivatives

(2167) As explained in further details in Section 3.5.1, OTC IRDs are contracts (i) used to speculate on or hedge against a movement in interest rates, (ii) which traded outside of an RM (e.g. that are traded on MTFs, OTFs or via an SI).

(a) On the one hand, the trading of OTC IRDs occurs based on an agreement to buy or sell an OTC IRD contract. EU regulation mandates that the trading of some OTC IRDs takes place on certain categories of (electronic) venues. A limited share of the OTC IRD contracts traded are subject to the mandatory trading obligation. In this regard, the Notifying Party estimates that, in 2019, [a significant percentage] of OTC IRD trades (based on the number of transactions) executed on Tradeweb were subject to the trading obligation.[2563]

(b) One the other hand, OTC IRD clearing primarily refers to services provided by CCPs to insure the "counterparty risk" in an OTC IRD trade. EU regulation mandates the clearing of certain OTC IRD contracts. A very large share of the OTC IRDs cleared are subject to mandatory clearing obligation. In this regard, the Notifying Party estimates that approximately [90-100]% of the OTC IRD trades LCH SwapClear clears are subject to mandatory clearing.

(2168) In the present case, the Parties are not active at the same level of the supply chain with regard to OTC IRDs.

(a) Refinitiv is active upstream, in the provision of on-venue (i.e. electronic) trading services for OTC IRDs, via it majority shareholding in Tradeweb. Tradeweb is a US-based company that operates electronic venues. For OTC IRDs in particular, Tradeweb owns *Tradeweb Institutional* (an MTF and a SEF primarily active in D2C trades)[2564] and *Dealerweb* (a SEF primarily active in D2D trades).[2565]

(b) LSEG is active downstream, in the provision of clearing services for OTC IRDs via LCH. LCH is a clearing house active across a range of asset classes, including OTC and listed Interest Rates, Fixed Income, FX, CDS, Equities, and Commodities. LCH operates its clearing activity for OTC IRDs via SwapClear. In this Decision, SwapClear is referred to as "LCH SwapClear".

2562 Question 84, Questionnaire 9 to information services end-customers, Doc ID 6480.

2563 [a small percentage]% in terms of value of transactions in million Euro, see Form CO, paragraph C.V.25.

2564 Tradeweb's MTF and SEF are electronic marketplaces that operate on the basis of a RFQ protocol and offer trading of a variety of IRSs and interest rate forwards including: US, European, Asia Pacific and emerging Markets IRS denominated in various currencies, and US Dollar Interest Rate Swaptions (See Form CO, paragraph C.V.86).

2565 According to the Notifying Party, Dealerweb offers only trading of North American IRDs (i.e. USD- and CAD-denominated products) and is used by only a very limited number of non-US based traders (See Form CO, paragraph C.V.87).

(2169) In relation to the Parties' vertical relationship between the provision of trading (upstream) and clearing (downstream) services for OTC IRDs, the Commission assessed the risks of customer foreclosure (See Section 4.5.36.1) and of input foreclosure (See Section 4.5.36.2).

4.5.36.1. Assessment of customer foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for over-the-counter interest-rate derivatives

(2170) The vertical link between the provision of trading (upstream) and clearing (downstream) services for OTC IRDs is affected downstream because LSEG's market share in the clearing of OTC IRDs worldwide, or in the EEA, is above 30%. This holds true for all the possible sub-segments by type of contracts, as well as the possible sub-segments by currency for at least the main currencies (EUR, USD, GBP, AUD, CAD, CHF), which would represent approximately more than [90-100]% of the OTC IRD market (see Figure 36).

(2171) As will be evidenced below, the Transaction will most likely lead the combined entity to engage in customer foreclosure strategies against Tradeweb's rivals for the provision of D2C trading services. These customer foreclosure against rival suppliers of OTC IRD trading services would be achieved through the following ways:

(a) Refusing access for clearing to D2C OTC IRD trades executed on trading venues of Tradeweb's rivals, including via middleware providers (refusing to clear on- and off-venue trades);

(b) Refusing access for clearing to D2C OTC IRD trades executed on trading venues of Tradeweb's rivals, except for trades executed via middleware providers (refusing to clear on-venue trades);

(c) Increasing clearing charges for D2C OTC IRD trades executed on trading venues of Tradeweb's rivals (price-based foreclosure);

(d) Degrading the quality, or imposing disadvantageous technical or operational requirements for clearing D2C OTC IRD trades executed on trading venues of Tradeweb's rivals (technical foreclosure); or

(e) Preventing innovation by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new D2C OTC IRD products (innovation foreclosure).

(2172) Customer foreclosure strategies (a) to (e) will be referred to as the "Customer foreclosure strategies". Customer foreclosure strategies (c) to (e) will be referred to as the "Partial customer foreclosure strategies" in the following.

(2173) Throughout Section 4.5.36.1, the term "customer" will used while referring to both buy-side and sell-side customers. Moreover, "client" will be used as a synonym for "buy-side customer" and "dealer" will be used as a synonym for "sell-side customer".

A. The Notifying Party's view

(2174) The Notifying Party submits that, for the following reasons, post-Transaction, the combined entity will not have the ability to engage in Customer foreclosure against OTC IRD trading rivals (Section 4.5.36.1.A.1), nor the incentives to do (Section 4.5.36.1.A.2), and that the impact of such strategies would not, in any event, have an adverse impact on effective competition (Section 4.5.36.1.A.3).

A.1. Ability to engage in customer foreclosure

(2175) *First*, the Notifying Party submits that the absence of foreclosure risk is demonstrated by LSEG's past behaviour relating to its own "*failed*" introduction of an OTC IRD trading venue (MTS Swaps) in 2014. According to the Notifying Party, if LSEG had had the incentive to favour its own nascent trading venue over rival trading venues through LCH SwapClear, it would have done so with MTS Swaps.[2566]

(2176) In the Notifying Party's response to the decision pursuant to Article6(1)(c), the Notifying Party also considers that the decision pursuant toArticle 6(1)(c) fails to take into account LCH's past behaviour, as the member of a group engaged in upstream trading activities, and reiterates this argument. The Notifying Party contends that in addition to the example of MTS Swaps (which failed despite LCH SwapClear presence downstream), LSEG is vertically integrated for the trading and clearing of other assets without having attempted to foreclose its upstream competitors.[2567]

(2177) *Second*, the Notifying Party considers that regulation prevents the combined entity from denying access to rival trading venues. MiFIR (Art. 35(1)) and EMIR (Art. 7) provide for access to CCPs by trading venues on a non-discriminatory and transparent basis. Furthermore, the Notifying Party notes that as a result of its open access business policy, no trading venue has so far needed to formally request access to LCH SwapClear based on the regulations because LCH SwapClear has so far always accepted the requests it received from trading venues.[2568]

(2178) In the Notifying Party's response to the decision pursuant to Article6(1)(c), the Notifying Party reiterates that regulatory requirements would prevent the combined entity from engaging in any form of customer foreclosure strategy.[2569]

(2179) More precisely, with respect to a potential price-based customer foreclosure strategy, the Notifying Party contends that bundled trading/clearing pricing would be incompatible with the European financial regulation, which was introduced with the aim to end vertical silos of bundled trading/clearing services.[2570]

(2180) Similarly, with respect to potential technical degradations, the Notifying Party claims that the technical and operational specifications for a given trading venue to gain connectivity to SwapClear, either directly via LCH's ClearLink API, or indirectly through a middleware provider, such as MarkitWire or Traiana, are transparent, industry standard, and are the same for all trading venues, as requested by regulation. The Notifying Party submits that any attempt to move away from this transparent and open-access paradigm and starting to set access requirements on a venue-by-venue basis would be in breach of the non-discriminatory provisions of the financial regulations.[2571]

(2181) *Third*, the Notifying Party contends that LCH SwapClear's governance model, which includes the representation of customers on LCH SwapClear's Boards, would prevent the combined entity from engaging in a full-foreclosure of rival trading venues (i.e. refusing to grant access to LCH SwapClear to rival trading venues),[2572]

2566 Form CO, paragraphs C.V.165. and C.V.166.
2567 Response to the decision pursuant to Article 6(1)(c), paragraph 129.
2568 Form CO, paragraphs C.V.169. to C.V.175.
2569 Form CO, paragraph 2.
2570 Response to the decision pursuant to Article 6(1)(c), paragraphs 118 to 120.
2571 Response to the decision pursuant to Article 6(1)(c), paragraph 128.
2572 Response to the decision pursuant to Article 6(1)(c), paragraphs 140 to 143.

or in a partial foreclosure.[2573] With regard to the Commission's preliminary view that LCH SwapClear could deny or degrade cooperation to rival trading venues for the introduction of new OTC contracts, the Notifying Party claims that LCH's internal validation process, which is scrutinized by and requires the final approval of LCH's independent Executive Risk Committee ("ERCO"), would prevent such scenarios from happening (see below recital (2260)).[2574]

(2182) *Fourth*, in its response to the decision pursuant to Article 6(1)(c), the Notifying Party submits that LCH SwapClear's competitive strength downstream is tempered by recent evolutions of the OTC IRD clearing market which rendered this market materially more competitive with the rise of clearing competitors such as Eurex and CME. Firstly, in support of this assertion, the Notifying Party explains that Eurex's market share in the clearing of EUR-denominated OTC IRDs has increased from 2.6% in January 2018 to 18.6% in February 2020. Secondly, the Notifying Party argues that the market for the clearing of OTC IRD is characterized by significant competition on pricing, as evidenced by the fact that LCH did not increase (or inflation adjust) SwapClear membership fees for membership plans between 2013 and 2018 and has not made significant changes to buy-side clearing fees since 2014. Thirdly, the Notifying Party submits that rival CCPs such as CME or Eurex have reached liquidity and clearing costs levels that are comparable to those of LCH, and have succeeded in parallel in growing their notional cleared volumes and building up sufficiently large and diverse user bases.[2575]

(2183) In this respect, the Notifying Party emphasizes that Eurex has currently more direct members than LCH SwapClear.[2576] In addition, the Notifying Party contends that the competitive rise of rival CCPs is illustrated by the flattening of the CCP basis[2577] over the last three years, over a range of tenors and currencies (in particular the LCH-Eurex basis for EUR-denominated OTC IRDs, the LCH-CME basis for USD-denominated OTC IRDs, and the LCH-JSCC for the JPY-denominated OTC IRDs). The Notifying Party further submits that EUR, USD and JPY together represent almost two-thirds of SwapClear's OTC IRD clearing volumes. In addition, the Notifying Party submits that another evidence of Eurex's reliability and credibility as an alternative to LCH SwapClear is the fact that during the current COVID-19 crisis, Eurex successfully maintained its level of liquidity in particular relative to LCH.[2578]

(2184) In addition, the Notifying Party considers that it is not necessary for a clearing house to support all currencies to be a credible alternative to LCH SwapClear, as evidenced by the fact that the CCP basis in the four leading currencies (EUR, USD, JPY and AUD), representing [a high percentage] of SwapClear's total OTC IRD notional outstanding in 2019 is similar across these different CCPs (Eurex for EUR, CME for USD, JSCC for JPY, and the Australian securities exchange for AUD). The Notifying Party further argues that there would be no material barriers for competing

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2573 Form CO, paragraphs C.V.176. to C.V.187.

2574 Response to the decision pursuant to Article 6(1)(c), paragraphs 138 and 139.

2575 Response to the decision pursuant to Article 6(1)(c), paragpraph 25.

2576 The Notifying Party contends that Eurex has 88 dealers who are direct clearing members (including all of the LCH SwapClear Banks), while LCH SwapClear has 64 direct clearing members. See Response to the decision pursuant to Article 6(1)(c), paragraphs 25 and 26.

2577 The "CCP basis", or also called "differential pricing" estimates the differences in dealer pricing for different CCPs. For instance, the LCH-Eurex basis estimates, in the form of a spread, the price difference that clearing an OTC IRD trade with LCH SwapClear or with Eurex would involve. See also paragraphs (2255) and (2256) below for more details.

2578 Response to the decision pursuant to Article 6(1)(c), paragraphs 27 to 42.

CCPs to develop clearing services for new currencies in response to customer demand, and that rival CCPs are not constrained in this regard from a capacity point of view.[2579]

(2185) *Fifth*, the Notifying Party considers that LCH SwapClear is constrained by the fact that switching CCP is no longer complex and costly, mainly because, as mentioned above, rival CCPs have become increasingly competitive, both in terms of liquidity and clearing costs, and because in order to make CCP switching easier various 'CCP switching services providers' have emerged in the market, offering to carry out a CCP switch on behalf of the customer.[2580] In particular, the Notifying Party considers that dealer banks can engage in gradual switching strategies, allowing them to transfer their net risk position in a way that preserves the margin and capital efficiencies benefits that they currently enjoy by clearing their entire portfolio at a single clearing house. For example, the Notifying Party indicates that thanks to their large volumes of daily trading, large SwapClear banks could transfer their entire risk position in a matter of a […]business days, while the same process might take a longer time – […] business days on average – for smaller dealer-banks. At the same time, LCH's large buy-side clients would be able to transfer their risk portfolio to a rival CCP without incurring additional costs in a time frame ranging from […] business days, while smaller buy-side clients would be in a position to do so in an even shorter amount of time due to their directional positions.[2581]

(2186) In addition, the Notifying Party claims that responses to the Phase I market investigation from market participant expressing their reluctance to switch CCP should be taken in their context, which, according to the Notifying Party, is that "*many customers have simply never had the need or desire to carry out a wholesale CCP switch given their overall satisfaction with SwapClear's services, including its open access and customer partnership model*."[2582]

(2187) *Sixth*, and consequently, the Notifying Party argues that dealer-banks and buy-side clients have a genuine countervailing buying power towards their CCP. Firstly, in support of this claim, the Notifying Party provides examples of banks switching CCP ([customers]), as well as one example of a buy-side client ([customer]) that threatened to switch CCP.[2583]

(2188) The Notifying Party further argues that the concentrated nature of LCH SwapClear's customer base further amplifies the risk of customer retaliation, because the switching of only a limited number of customers could drastically reduce the volumes cleared at LCH SwapClear (as an example, the Notifying Party explains that only [a very small percentage] of SwapClear's buy-side clients could move nearly [a very high percentage] of SwapClear's buy-side volumes to a rival CCP, lowering SwapClear's overall market share by [a significant percentage]).[2584] Similarly, the Notifying Party submits that the loss of one or two large dealer banks would represent a substantial loss for SwapClear's overall cleared volumes.[2585] The Notifying Party further contends that customers countervailing buyer power is evidenced by the fact that large dealer banks, who represent "[a very high

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2579 Response to the decision pursuant to Article 6(1)(c), paragraphs 55 to 60.
2580 Response to the decision pursuant to Article 6(1)(c), paragraphs 66 to 71.
2581 Response to the decision pursuant to Article 6(1)(c), paragraphs 88 to 92.
2582 Response to the decision pursuant to Article 6(1)(c), paragraph 45.
2583 Response to the decision pursuant to Article 6(1)(c), paragraphs 87 and 94.
2584 Response to the decision pursuant to Article 6(1)(c), paragraphs 73 and 98.
2585 Response to the decision pursuant to Article 6(1)(c), paragraph 78.

percentage] *of SwapClear's total clearing member notional volumes*", are already connected to rival CCPs such as Eurex and CME (in addition, all 14 SwapClear banks are also members of the Eurex partnership program), and can therefore easily switch CCPs.[2586] In this respect, while acknowledging the fact that buy-side clients can switch more easily given the directional nature of their portfolio, which does not allow them to benefit from margin efficiencies at CCPs to the same extent as sell-side customers.[2587] With respect to the sell-side, the Notifying Party considers that dealers are able to direct buy-side volumes to rival CCPs through the prices they quote.[2588] In support of this, the Notifying Party quotes one of Eurex's submission to the Commission, mentioning that "*other CCPs still exercise a competitive constraint on LCH due to the potential for central clearing to switch to an alternative CCP, in particular the threat that part or all of the OTC IRD clearing volumes may "tip" to an alternative CCP*".[2589]

(2189) In the same vein, the Notifying Party considers that the fourteen members of the SwapClear agreement, via OTCDerivNet, collectively enjoy a significant degree of bargaining power vis-à-vis SwapClear. In support of this, the Notifying Party submits that in the course of the [time indication] negotiations of the SwapClear agreement in relation to OTC IRD clearing services, which took place in [date], OTCDerivNet [description of commercial discussions].[2590] Going further, the Notifying Party claims that the 14 SwapClear banks enjoy, through OTCDerivNet, further practical and legal mechanism to put collective, as well as individual, pressure on LCH [description of a term of the commercial arrangement].[2591]

(2190) The Notifying Party also contends that customers' significant countervailing buying power is evidenced by several other elements, in particular (i) the statements made by Eurex and Deutsche Börse in a Eurex Risk.net webinar 'CCP Switching: how and why?', dated 4 June 2020,[2592] and (ii) the fact that LCH did not increase (or even inflation adjust) SwapClear membership fees for membership plan between 2013 and 2018, has not made significant changes to buy-side clearing fees since 2014, [description of LCH SwapClear commercial strategy].[2593] Regarding the latter, the Notifying Party submits that any market power SwapClear currently enjoys as a result of its current position (and the underlying network effects characterising OTC IRD clearing) is already factored into SwapClear's pricing policy pre-Transaction in such a way that any further price increase would lead customer to switch to an extent that the increased price paid by remaining customers would not be sufficient to offset the losses of revenues from those who switched away from SwapClear.[2594]

(2191) *Seventh*, as regards a potential price-based customer foreclosure strategy, the Notifying Party contends that, at least with respect to a significant portion of its business, [description of LCH legal obligations].[2595] According to the Notifying Party, this is because LCH [description of a term of the commercial arrangement] with the SwapClear banks, which account for [a high percentage] of LCH

2586 Response to the decision pursuant to Article 6(1)(c), paragraphs 7 and 80.
2587 Response to the decision pursuant to Article 6(1)(c), paragraphs 496 and 97.
2588 Response to the decision pursuant to Article 6(1)(c), paragraphs 496 and 97.
2589 Response to the decision pursuant to Article 6(1)(c), paragraph 75.
2590 Response to the decision pursuant to Article 6(1)(c), paragraphs 108 to 112.
2591 Response to the decision pursuant to Article 6(1)(c), paragraph 83.
2592 Response to the decision pursuant to Article 6(1)(c), paragraph 38.
2593 Response to the decision pursuant to Article 6(1)(c), paragraphs 84 and 85.
2594 Response to the decision pursuant to Article 6(1)(c), paragraph 78.
2595 Form CO, paragraph C.V.264.

SwapClear's notional volumes cleared.[2596] In its response to the decision pursunt to Article 6(1)(c), the Notifying Party explains that, as a result of the latest negotiations of the SwapClear agreement ([…]), SwapClear [description of a term of SwapClear's commercial arrangement].[2597]

(2192) *Eighth*, the Notifying Party considers that a partial foreclosure is not possible, as LCH SwapClear cannot reliably identify where all trades that it clears are executed. According to the Notifying Party, this is because a significant portion of the trades LCH SwapClear clears are submitted for clearing via a middleware provider (MarkitWire). MarkitWire issues "tickets" to the CCP that contain the relevant information of the trade, including a "trading venue field". However, the Notifying Party claims that it is not mandatory to fill in this field and therefore, this field is only filled in ca. [a significant percentage] of the cases.[2598] The Notifying Party also contends that LCH SwapClear would not be able to enforce this field to be filled in without raising concerns from dealers, who would eventually retaliate and move their clearing to alternative CCPs.[2599] The Notifying Party emphasizes in particular that LCH SwapClear does not have the ability to control the content or the reliability of any information contained in tickets that are routed to LCH SwapClear through a middleware provider, and would not be in a position to exert pressure on MarkitWire in order to impose requirements on it. The Notifying Party also explains that that [a very high percentage] of LCH SwapClear's notional volumes in 2019 were routed through MarkitWire.[2600]

(2193) *Ninth*, the Notifying Party notes that trying to use LCH SwapClear to foreclose rival trading venues would be at odds with LSEG's business model. LSEG is primarily focused [description of LSEG's commercial strategy]. To do so, the Notifying Party strives to constantly innovate and increase value for its customers, e.g. through its compression services, which reduce customers' clearing costs and increase overall clearing volumes in the market. LCH SwapClear also argues that the fact that it currently clears trades of trading venues which are affiliated with rival CCPs, speaks to its commitment of providing open access services.[2601] In the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party submits that LCH SwapClear's commitment to its open access model, which the Notifying Party describes as "*the cornerstone of LCH's commercial success*", is an important factor that would prevent the combined entity from engaging in any form of customer foreclosure strategy.[2602]

(2194) *Tenth*, and with respect to a potential innovation-based foreclosure strategy, in the Notifying Party's response to the decision pursuant to Article6(1)(c), the Notifying Party considers that innovation at clearing level is driven by customers, as well as new regulatory requirements, so that LCH would not have the ability to prevent innovative products from being deployed and commercialized. The Notifying Party contends that it is very rare for LCH to receive a request for the development of a

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2596 Form CO, paragraph C.V.264.

2597 Response to the decision pursuant to Article 6(1)(c), paragraphs 81 and 84.

2598 The Notifying Party reported two different values for the notional cleared at LCH based on a MarkitWire ticket in the first half of 2019. In the Form CO, paragraph C.V. 268 the figure [...] EUR bn out of a total of [...] EUR bn cleared was quoted (=[a significant percentage]). The Notifying Party corrected this figure in a later email of 11 June 2020 to [...] EUR bn (=[a very high percentage]).

2599 Form CO, paragraphs C.V.113, C.V. 152 and C.V.265 to C.V.285.

2600 Response to the decision pursuant to Article 6(1)(c), paragraph 128.

2601 Form CO, paragraphs C.V.165, C.V.167, C.V.181 and C.V.296 to C.V.298

2602 Response to the decision pursuant to Article 6(1)(c), paragraphs 105 and 129.

new product directly from a trading venue, and that in almost all instances it is clearing members who approach LCH with a demand for a new product.[2603] The Notifying Party explains that once a new product has been made available for clearing, or is close to being so, LCH reaches out to all trading venues and market participants, including clearing brokers and buy-side market participants, to test and integrate the necessary connectivity required for the new products. More precisely, the Notifying Party explains that the connectivity requirements for new products, as well as any testing procedures, are the same for all trading venues, are based on industry standard, and are transparent in the sense that they are disclosed in the same way to all parties in a secured section of LCH's website.[2604]

(2195) The Notifying Party also contends that the combined entity could not engage in a potential innovation-based foreclosure strategy due to LCH's structural organisation. This is because, according to the Notifying Party, new product proposals need to go through LCH's internal validation process, which is scrutinized by and requires the final approval of LCH's Executive Risk Committee ("ERCO"), which is chaired by LCH's Chief Risk Officer who, as required by EMIR, is independent from LCH's executive management. Moreover, in compliance with EMIR, the ERCO is composed of representatives of clearing members, independent members of the board and representatives of the CCP's clients, and the advice of the ERCO must be independent of any direct influence by the management of the CCP. Accordingly, the Notifying Party submits that LCH could not prevent new products from being made available for clearing without the approval of these independent members and CCP clients, who have no interest in delaying the introduction of new products.[2605] In addition, the Notifying Party explains that the SwapClear banks enjoy [description of a term of SwapClear's commercial arrangements].[2606]

(2196) In addition, the Notifying further submits that even if some degree of cooperation between trading venue and CCP was required to bring an innovation to the market, rival CCPs such as Eurex and CME would be in a position to collaborate with rivals of Tradeweb such as Bloomberg, and rivals at both upstream and downstream level would indeed be not only able, but also very willing to do so.[2607]

(2197) *Eleventh*, the Notifying Party considers that the threats of new entrants would prevent the combined entity from engaging in customer foreclosure strategies post-Transaction.[2608] In its response to the decision pursuant to Article 6(1)(c), the Commission submits that ICE remains a credible potential entrant, despite having abandoned its plan to start clearing OTC IRDs back in 2014. This is based on LCH's understanding that [competitive analysis of the parties]. Moreover, the Notifying Party submits that ICE would have less obstacles to overcome in order to enter the market because it already clears derivatives in other asset classes.[2609]

(2198) *Twelfth*, in its response to the SO, the Notifying Party contends that the SO's findings on countervailing buyer power are directly contradicted by the market test feedback. In particular, the Notifying Party argues that none of the SwapClear Banks

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2603 Response to the decision pursuant to Article 6(1)(c), paragraphs 130 to 135.
2604 Response to the decision pursuant to Article 6(1)(c), paragraph 136.
2605 Response to the decision pursuant to Article 6(1)(c), paragraphs 138 and 139.
2606 Response to the decision pursuant to Article 6(1)(c), paragraphs 140 and 141.
2607 Response to the decision pursuant to Article 6(1)(c), paragraphs 11, 137 and 143.
2608 Form CO, paragraph C.V.149.
2609 Response to the decision pursuant to Article 6(1)(c), paragraphs 99 to 102.

that were surveyed[2610] agreed with the Commission's hypothesis that they somehow lacked negotiating power.[2611] To the opposite, the Notifying Party emphasizes[2612] that the only meaningful answer (from Nomura) suggests that there could be indeed some degree of negotiation power: "*We do have a good working relationship with LCH and believe there is sufficient negotiation power both individually and via OTCDerivNet.*"[2613]

(2199) The Notifying Party notes as well that a majority of customers (52%) agree that LCH faces meaningful competition from other OTC IRD CCPs and 62% of them consider that their ability to switch CCP constrains LCH SwapClear's pricing.[2614]

(2200) *Thirteenth*, as regards the possibility for customers to switch CCP, the Notifying Party considers that the SO failed to properly test the ease and low cost of the gradual switching mechanism available to customers. The Notifying Party argues that while the market test asked certain generic switching questions, the questionnaires made no attempt to explain to respondents the concept and assumptions underpinning the gradual switching strategy that forms the basis of the Parties' submissions. The Notifying Party further contends that it is apparent from the responses that respondents were unclear about the question posed and the assumptions underpinning the gradual switching strategy.[2615]

(2201) The Notifying Party also claims that the Commission has failed to investigate respondents' actual experience of switching CCP, and that there is no evidence in the SO to suggest that the Commission made any effort to follow up with the market participants that have switched trading venue or CCP in the past.[2616]

(2202) In addition, the Notifying Party argues that the SO provides no evidence to suggest that a hypothetical one-off switching cost of EUR 2 million would be prohibitive to a critical mass of dealer-banks and buy-side customers.[2617]

(2203) *Fourteenth*, in its response to the SO, the Notifying Party considers that the Commission did not test the Parties' central argument that LCH SwapClear's rivals have sufficient liquidity (despite having less liquidity that LCH SwapClear, as evidenced by the results of the market investigation[2618]) to effectively assert competitive pressure on the merged entity. The Notifying Party argues that liquidity on rival CCPs is no longer low and, while not identical, is not meaningfully different from LCH SwapClear's liquidity.[2619]

(2204) *Fifteenth*, in its response to the SO, the Notifying Party argues that the SO contains no justification for dismissing the importance of LCH SwapClear's "*long-dated and consistently endorsed*"[2620] open access and non-discriminatory business model.[2621]

2610 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2611 Response to the SO, paragraph 69
2612 Response to the SO, paragraph 69
2613 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, response of Nomura, Doc ID 6472.
2614 Response to the SO, paragraph 49
2615 Response to the SO, paragraph 54
2616 Response to the SO, paragraph 65
2617 Response to the SO, paragraph 60
2618 See in particular Questions 18, 19 and 20, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2619 Response to the SO, paragraph 35.
2620 SO, paragraph 1160.
2621 Response to the SO, paragraph 15.

(2205) *Sixteenth*, in its response to the SO, the Notifying Party considers that the SO's contention that customers find it easier to switch trading venues than CCPs is deeply flawed, since (i) the SO did not survey those customers that would be the target of the hypothetical customer foreclosure (*i.e.* Bloomberg customers), (ii) the SO failed to consider that switching between Bloomberg and Tradeweb is asymmetric as almost all market participants are already connected to Bloomberg due to Bloomberg's extensive product offering beyond OTC IRDs, while not all are connected to Tradeweb[2622] and (iii) among the customers that replies to these questions, a significant proportion already execute the vast majority of their trading volumes cleared at LCH SwapClear on Tradeweb.[2623]

(2206) *Seventeenth*, the Notifying Party also considers that the SO's findings in relation to margin requirements are unfounded, because (i) margin setting for both new and existing products is heavily regulated and depend upon risk models and parameters that must be validated and approved by the relevant competent authority,[2624] and (ii) margin requirements are set based on a clearing member's overall risk position across its entire position of products, irrespective of where these products are traded, so that margin requirements vary a lot across customers, and it is impossible for LCH SwapClear to alter margin requirements based on trading venue.[2625]

(2207) *Eighteenth*, in its response to the SO, the Notifying Party considers that the customer feedback about the importance of being able to clear IRDs denominated in multiple currencies in one CCP suggested that this is not a very important consideration to them (26% not important and 34% it depends)[2626] and 80% customers agreed[2627] that "*margin requirements are similar across the different CCPs (LCH, Eurex, CME and JSCC)*".[2628]

(2208) *Nineteenth*, in its response to the SO, the Notifying party considers that the Commission's assessment didn't give proper weight to (i) the significant growth of competitors such as Eurex (as evidenced by Eurex' own statements),[2629] and (ii) the fact that market test feedback also confirms that Eurex's position is set to grow even further in the next 2 – 3 years, as, irrespective of the outcome of the Transaction, 51% of respondents explained[2630] that they planned to either: (a) start clearing at Eurex (19%) or (b) increase the volumes they clear with Eurex (32%); and (c) almost half (45%) planned to maintain their current levels of clearing volumes at Eurex.[2631]

(2209) *Twentieth*, in relation to technical foreclosure, the Notifying Party considers that the SO's findings regarding the combined entity's ability to engage in technological/innovation foreclosure are unfounded because, while three competitors voiced complaints; the overall feedback from customers and competitors shows that these theories of harm are highly speculative and uncertain.[2632] The Notifying Party contends that (i) the Commission failed to ask customers if/how technical

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2622 Response to the SO, paragraph 63.
2623 Response to the SO, paragraph 84.
2624 Response to the SO, paragraph 114.
2625 Response to the SO, paragraph 115.
2626 Response to the SO, paragraph 38 – see also Response to the SO, footnote 67.
2627 Question 24.6, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2628 Response to the SO, paragraph 27.
2629 Response to the SO, paragraph 40.
2630 Question 38, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2631 Resopnse to the SO, paragraph 41.
2632 Resposne to the SO, paragraph 98.

degradation was possible,[2633] (ii) Eurex and CME not aware of how could such degradation could be achieved (for technical foreclosure),[2634] and (iii) the Commission failed to account for the fact that such a degradation would need to be highly visible to be seen by customers/produce effects.[2635]

(2210) *Twenty-first*, in relation to innovation foreclosure, the Notifying Party considers that the Commission's argument that rival trading venues would lack any efficient counter-strategy to such a customer foreclosure strategy, and in particular that rivals of LCH SwapClear could not engage with rivals of Tradeweb in order to develop new products is unfounded. The Notifying Party emphasizes that the Commission relied on the fact that such partnerships would not allow customers to clear on LCH SwapClear, which is precisely what customers want and the reasons that would lead them to switch trading venue in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP.[2636] The Notifying Party contends that this is directly contradicted by the fact that rivals such as CME already have a track-record of successfully launching new products and innovations that are either not available on LCH SwapClear or have only become available on LCH SwapClear later, such as the MXN-denominated IRDs cleared by CME.[2637]

A.2. Incentives to engage in customer foreclosure

(2211) As regards incentives, *first*, the Notifying Party indicates in the esponse to the decision pursuant to Article 6(1)(c) that two facts speak against any incentive for the combined entity to engage in a potential customer foreclosure strategy, namely (i) that Tradeweb's margins (upstream) are […] than LCH SwapClear's margins (downstream) and (ii) that Refinitiv only has a 54% shareholding in Tradeweb (upstream), while LSEG owns 83% of LCH SwapClear (downstream).[2638]

(2212) *Second*, the Notifying Part disagrees with the view that, in case of a customer foreclosure strategy, LCH SwapClear would face a very low switching rate downstream (i.e. that LCH would lose an insignificant share of clearing customers).[2639] In the Notifying Party's view, LCH SwapClear's market position in clearing is constrained and a customer foreclosure strategy would not be profitable, in particular because even if the level of switching downstream was very low, this would not override the fact that margins are […] upstream and that Refinitiv's shareholding in Tradeweb is lower than LSEG's shareholding in LCH.[2640]

(2213) *Third*, the Notifying Party considers that the Commission cannot draw any meaningful conclusions about the effects of a non-horizontal merger by considering raising rivals' cost effects in isolation.[2641] The Notifying Party is of the opinion that the quantitative analysis of the customer foreclosure strategy would need to take into

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2633 Response to the SO, paragraph 97.
2634 Response to the SO, paragraph 99.
2635 Response to the SO, paragraph 110.
2636 Question 26, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2637 Response to the SO, paragraph 111.
2638 Response to the decision pursuant to Article 6(1)(c), paragraphs 154 and 155.
2639 Response to the decision pursuant to Article 6(1)(c), paragraph 155.
2640 Response to the decision pursuant to Article 6(1)(c), paragraph 156.
2641 Response to the decision pursuant to Article 6(1)(c), paragraphs 157 and 158.

account the potential elimination of double marginalisation (and the associated efficiencies) that stem from such a scenario.[2642]

(2214) *Fourth*, as mentioned above in relation to ability (but the argument also has a bearing in the Commission's assessment of the incentives to engage in potential customer foreclosure strategies in the present case), in its response to the SO, the Notifying Party considers that the SO's contention that customers find it easier to switch trading venues than CCPs is deeply flawed, since (i) the SO did not survey those customers that would be the target of the hypothetical customer foreclosure (*i.e.* Bloomberg customers), (ii) the SO failed to consider that switching between Bloomberg and Tradeweb is asymmetric as almost all market participants are already connected to Bloomberg due to Bloomberg's extensive product offering beyond OTC IRDs, while not all are connected to Tradeweb[2643] and (iii) among the customers that replies to these questions, a significant proportion already execute the vast majority of their trading volumes cleared at LCH SwapClear on Tradeweb.[2644]

(2215) *Fifth*, in its response to the SO, the Notifying Party is of the opinion that there is no standalone incentives analysis for any of the partial customer foreclosure theories of harm.[2645]

(2216) *Sixth*, in its response to the SO, the Notifying Party claims that the SO gives no consideration to the adverse consequences a move away from open access would have on the commercial success of the wider LSE Group.[2646]

(2217) *Seventh*, in its response to the SO the Notifying Party submits, that the SO fails to properly consider the relevance of the EDM effects on raising rivals' costs incentives. The Notifying Party considers that in the present case, EDMs are intrinsically linked to the assessment of incentives to foreclose, and it is inappropriate that the Commission has attempted to shift the burden of proof to the Parties under the circumstances of this case.[2647]

(2218) *Eighth*, in its response to the SO, the Notifying Party indicates that the SO fails to provide information regarding how sensitive the conclusion of the VA modelling are to the market investigation outcome regarding customers' switching rates.[2648]

(2219) *Ninth*, in its response to the SO, the Notifying Party emphasizes that with respect to technical foreclosure strategies, the SO has failed to take into account the costs needed for LCH SwapClear to put in place such a strategy, in light of the fact that it would require some degree of re-designing of LCH SwapClear's workflows, so that technical foreclosure is extremely difficult in practice and LCH SwapClear would have to invest extensive time and resource to implement the putative strategies.[2649]

(2220) *Tenth*, in its response to the SO, the Notifying Party points out that the SO has not cited a single internal document out of a total set of 650,000 LSEG documents that provides evidence that LCH (or indeed any other CCP) has ever contemplated the commercial benefits of this type of strategy, let alone any evidence that supports a

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2642 Response to the decision pursuant to Article 6(1)(c), paragraphs 157 and 158 – see also Section 4.5.36.1.A.3 below.

2643 Response to SO, paragraph 63

2644 Response to SO, paragraph 84

2645 Response to SO, paragraphs 3, 89, 94 and 105

2646 Response to SO, paragraphs 11, 16, 18, 24, 82 and 96

2647 Response to SO, paragraph 91

2648 Response to SO, paragraph 91

2649 Response to SO, paragraph 100

finding that – in view of the material technical and resource hurdles outlined above – the incentives would stack in favour of such a strategy in any part of its business.[2650]

(2221) *Eleventh*, with respect to innovation foreclosure, the Notifying Party explains in its response to the SO that while there is communication between the CCP and trading venues when products already available for clearing are about to become available for electronic trading as well, there is no collaboration: LCH SwapClear unilaterally develops the technical specifications required for the new product to be cleared at LCH SwapClear (in line with its internal assessment of the overall risk profile and characteristics of the new product). Once it has completed this process, it communicates these technical specifications (which are based on industry standards) to all connected trading venues and middleware providers at the same time.[2651]

(2222) *Twelfth*, in its response to the SO, the Notifying Party explains that the criticisms raised by the SO in respect of the assumptions underpinning the Parties' modelling are unfounded, or would apply equally to the Commission's own vertical arithmetic modelling.[2652]

(2223) *Thirteenth,* in its response to the SO, the Notifying Party considers that the SO's analysis in relation to a potential foreclosure of all D2C OTC IRD trades (including voice trades) contains an error in that it fails to take into account the losses LCH would suffer downstream in its electronic business. The critical diversion ratio would be much higher (57% instead of 8%) when these elements are properly taken into account; but it would not change the result of the incentives analysis of this particular theory of harm.[2653]

A.3. Impact of a customer foreclosure strategy

(2224) In terms of the impact of a foreclosure strategy, the Notifying Party submits that in case of a significant increase in clearing prices or reduction in the quality of clearing services, customers of trading venues would switch to rival CCPs.

(2225) *First*, with respect to a potential price-based customer foreclosure, the Notifying Party submits economic analyses (vGUPPI and equilibrium modelling) aiming to demonstrate that the proposed merger is not likely to reduce consumer surplus in the markets for D2C OTC IRD clearing and trading through a price-based partial foreclosure mechanism. The theoretical models weight off the potential benefits for the combined entity of a price-based partial foreclosure strategy (e.g. via raising rivals' costs) with potential costs for the combined entity in the form of lower downstream prices (e.g. via taking into account potential efficiencies in the form of elimination of double marginalization). The Notifying Party interprets the results as indication for the absence of consumer harm in the markets for D2C OTC IRD clearing and trading through a price-based partial strategy. [2654] *Second*, the Notifying Party contends that a partial foreclosure would have to reduce rival trading venues' investment incentives to effectively reduce their competitiveness over time, as such strategy is otherwise unlikely to reduce revenues of rival trading venues to an extent

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2650 Response to SO, paragraph 102

2651 Response to SO, paragraph 109

2652 Response to SO, paragraph 91. See also Annex I of the response to the SO.

2653 Response to SO, paragraph 84

2654 Notifying Party's submissions "*Analysing competitive effects in D2C OTC IRD clearing and trading"*dated 8 September 2020; "*M.9564 - LSEG/Refinitiv - IRD workshop - data submission"* dated 1 September 2020 and *"M.9564 LSEG / Refinitiv - IRD workshop - economic paper and further data submission"* dated 8 September 2020

where they would exit because they are not able to cover short-term variable costs.[2655]

(2226) *Third*, according to the Notifying Party, the combined entity's main competitor at the trading level (upstream), Bloomberg, would not be harmed by a hypothetical foreclosure strategy due to its "coverage" business model (meaning that Bloomberg aims to offer an integrated solution covering data, news, analytics, communication and trading tools). Due to this business model, the Notifying Party claims that Bloomberg would have an incentive to continue offering OTC IRD trading services, even if trading volumes on the venue were low. The business model leads to lower ongoing costs associated with offering OTC IRD trading services, as customers use it for reasons of convenience and being a "one-stop shop" rather than because of superior functionalities (which would be costly for Bloomberg to implement). This means, according to the Notifying Party, that the level of investments that Bloomberg needs to maintain in order to remain competitive are lower and hence, even a large reduction in trading volumes would not drive Bloomberg out of the market.[2656] The Notifying Party reiterates in its response to the Commission's 6.1.c decision that any attempt to foreclose Bloomberg by raising its costs and thus render its OTC IRD trading venue less attractive to customers is bound to be defeated by Bloomberg's financial power, which would allow it to maintain the same level of price it currently offers for its services even if its costs were to rise.[2657]

(2227) *Fourth*, the Notifying Party submits that even if the combined entity were to refuse clearing services to rival trading venues, this would not foreclose those rivals for several reasons: a) rival trading venues can resort to credible alternative CCPs;[2658] b) upcoming industry changes related to the transition away from the interbank offered rate ("IBOR") interest rate benchmarks will further increase existing competition and encourage new entry;[2659] c) the threat of switching (gradually or "*en masse*") and the scale, speed and ease of such switching will remain a significant constraint on LCH SwapClear;[2660] and d) dealer banks are able to sponsor entry.[2661]

B. The Commission's assessment

(2228) The Commission assessed the responses of the market investigation and other evidence available to it in light of paragraphs 59ff of the Non-Horizontal Merger Guidelines to determine whether, post-Transaction, (i) the combined entity would have the ability to foreclose the access of rival OTC IRD trading venues to LCH SwapClear; (ii) the combined entity would have the incentive to do so; and (iii) foreclosure strategies would have a significant detrimental effect on competition in the downstream or upstream markets.

(2229) Based on the results of the in-depth market investigation and the evidence available to it, the Commission considers that, as a result of the Transaction, the combined entity will likely be able and have the incentives to foreclose upstream rivals (active in OTC IRD trading services) by engaging in Customer foreclosure strategies, and

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2655 Form CO, paragraph C.V.291.
2656 Form CO, paragraphs C.V.292 and C.V.293.
2657 Response to the decision pursuant to Article 6(1)(c), paragraph 13.
2658 Form CO, paragraphs C.V.189 to C.V.194.
2659 Form CO, paragraphs C.V.195 to C.V.197.
2660 Form CO, paragraphs C.V.203 to C.V.251.
2661 Form CO, paragraphs C.V.201 and C.V.202.

that such Customer foreclosure strategies will significantly impede effective competition in the trading of OTC IRDs and its plausible sub-segments.

(2230) Overall, the Commission finds that most of the views of the Notifying Party are not confirmed by the in-depth investigation and that contrary to the Notifying Party's view, the Transaction would significantly impede effective competition with regard to vertical link in trading and clearing of OTC IRDs.

B.1. Ability to engage in customer foreclosure

(2231) The Commission considers that the combined entity will have the ability to engage in the Customer foreclosure strategies given that LCH SwapClear is dominant in the OTC IRD clearing market, and its plausible sub-segments (Section 4.5.36.1.B.1.1.), it is possible legally and in practice for LCH SwapClear to refuse to clear trades originating from rival trading venues (Section 4.5.36.1.B.1.2.) and to engage in the Partial customer foreclosure strategies (Section 4.5.36.1.B.1.3.), and that counter strategies from rivals upstream would prove ineffective (Section 4.5.36.1.B.1.4.).

B.1.1. LCH is dominant in OTC IRD clearing

(2232) In accordance with the Non-Horizontal Merger Guidelines, for customer foreclosure concerns to arise, a merger must involve a company which is an important competitor with a significant degree of market power downstream.[2662]

(2233) In the present case, the Commission concludes that LCH SwapClear has a significant degree of market power downstream, in the market for the provision of CCP clearing services for OTC IRDs.[2663] The in-depth investigation indeed indicates that LCH SwapClear is the dominant provider of CCP clearing services for OTC IRDs, both globally and in the EEA.

(2234) LCH SwapClear's dominance is evidenced by (i) its very high market shares (Section 4.5.36.1.B.1.1.1.); (ii) its unique liquidity pool, CCP basis, and attractiveness across a wide range of currencies (Sections 4.5.36.1.B.1.1.2. and 4.5.36.1.B.1.1.3.); the fact that (iii) the CCP market for OTC IRDs is characterised by strong network effects, high barriers to entry, and difficulties for switching (Sections 4.5.36.1.B.1.1.4., 4.5.36.1.B.1.1.5. and 4.5.36.1.B.1.1.6.); and the fact that (iv) customers' countervailing buyer is limited (Section 4.5.36.1.B.1.1.7.).

(2235) In addition, the Commission concludes that, contrary to the Notifying Party's view, LCH SwapClear's historical commitment to an open access model is insufficient to guarantee its future behaviour, and to conclude that the combined entity will not have the ability to foreclose upstream rivals post-Transaction (Section 4.5.36.1.B.1.1.8.).

(2236) LCH SwapClear's dominance in the downstream market is also confirmed by the feedback of market participants. The following statement of Eurex is representative of many responses to the market investigation: *"LCH's SwapClear service is the incumbent OTC IRD clearing service. SwapClear continues to enjoy the support of the major dealer banks who hold a strategic interest in the SwapClear service through arrangements between LCH and OTCDerivNet. SwapClear's "first mover" advantage means that it has the world's largest pool of open interest across OTC*

2662 Non-Horizontal Merger Guidelines, paragraph 61.

2663 This holds true that the CCP OTC IRD market be defined as EEA-wide or global, as well as for all the possible sub-segments by type of contracts, and the possible sub-segments by currency for at least the main currencies (EUR, USD, GBP, AUD, CAD, CHF), which would represent approximately more than [a very high percentage] of the OTC IRD market (see Figure 33).

IRD currencies. Market participants, particularly the large dealers, thus benefit from the significant implicit cost savings that accrue from clearing the bulk of their OTC IRD trades through SwapClear – particularly through portfolio effects across multiple currencies. SwapClear is also connected to more than a dozen OTC trading venues, either through third party middleware providers [or] *directly."*[2664]

B.1.1.1. LCH SwapClear's very high market shares constitute a first indication of dominance downstream

(2237) As indicated in paragraph 23 of the Non Horizontal Merger Guidelines, "*Market shares and concentration levels provide a first useful indication of the market power and the competitive importance of both the merging parties and their competitors*".[2665]

(2238) In the present case, LCH SwapClear market shares are extremely high, which is a first strong indication of its market power, and dominance, in the CCP market of OTC IRD clearing services.

(2239) *First*, as described in Table 43 above, LCH SwapClear's 2019 world-wide market share amounts to [90-100]% market share in terms of notional cleared volumes of OTC IRDs (and to [70-80]% in terms of notional outstanding volumes of OTC IRDs). As LCH SwapClear's worldwide market share provides the best available proxy for EEA-wide market shares, according to the Notifying Party,[2666] the Commission notes that LCH SwapClear's market share are extremely high, both in the EEA-wide and worldwide markets of CCP clearing of OTC IRDs. As such, LCH SwapClear's market shares provides a first strong indication of its market power, and dominance, in the CCP clearing market of OTC IRD at both global and EEA-wide levels.

(2240) *Second*, on a product per product basis, in terms of notional cleared in 2019, LCH's market share was [80-90]% for IRS, [90-100]% for OIS and [90-100]% for FRA. In terms of notional outstanding volumes, LCH's market share in 2019 was [60-70]% for IRS, [90-100]% for OIS and [80-90] % for FRA.[2667] As such, LCH SwapClear's market shares provides a first strong indication of its market power, and dominance, in the CCP clearing market of OTC IRD and its potential sub-segment by type of contracts.

(2241) *Third*, on a currency per currency basis, in terms of notional cleared in 2019, LCH's market share was above [90-100]% for EUR, USD, GBP, CAD and CHF, and it is [80-90]% in AUD and [40-50]% in JPY. Similarly, in terms of notional outstanding volumes in 2019, LCH's market share was above [80-90]% for EUR, USD, GBP, CAD, CHF and AUD; while it was [30-40]% in JPY.[2668] As such, LCH SwapClear's market shares provides a first strong indication of its market power, and dominance, in the CCP clearing market of OTC IRD and its potential sub-segment by type of underlying currencies.

(2242) In addition, the Commission assessed the market share estimates contained in LCH SwapClear's internal documents, which contain more recent and extensive market

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2664 Question 22, Questionnaire 2 to CCP competitors, response of Eurex, Doc ID 6473.

2665 Non-Horizontal Mergers Guidelines.

2666 The Notifying Party submits that, while no data to calculate EEA-wide market shares in OTC IRD CCP clearing are readily available, LCH SwapClear's market share at EEA-wide level would not differ substantially from its market share at worldwide level (see RFI 19 reply, question 1).

2667 See section 4.3.3 above for complete market share tables.

2668 See section 4.3.3 above for complete market share tables.

share data for the clearing of OTC IRD denominated in various currencies (namely the 26 main currencies of interest to LCH SwapClear). *First*, as evidenced by Figure 30 below, LCH SwapClear's market share in April 2020 were [90-100]% for [quantity] of these [quantity] currencies, including all EMEA currencies and all Asia and Pacific countries ("APAC") currencies to the exception of CNY (28.9% market share) and JPY (53.2% market share, which is 3.3 percentage points higher than the figure provided by the Notifying Party). According to these internal estimates, LCH SwapClear's market share is above 90% in USD and CAD as well. *Second*, as evidenced by Figure 30 below, LCH SwapClear's total market share has recently [change in market share]. In the period covering January to April 2020, its market share was [90-100]% overall versus [90-100]% in 2019. This shows that, despite limited margins for increase, LCH SwapClear's market share appears to be still on an upward trajectory, suggesting an ongoing further strengthening of LCH SwapClear's already hyper-dominant position in the clearing of OTC IRDs downstream.

Figure 30

[internal document]

Source: [internal document]

(2243) With respect to LCH's market shares on a currency per currency basis, it should be noted that when explaining in its response to the decision pursuant to Article6(1)(c) that Eurex's market share in the clearing of EUR-denominated OTC IRDs has increased from 2.6% in January 2018 to 18.6% in February 2020,[2669] the Notifying Party did not rely on its own estimates but rather relied on estimates from Eurex, published by Eurex in a document of promotional nature (slide 6 of Eurex Clearing Partnership Program, OTC Interest Rate Derivatives – Feb 2020).[2670]

(2244) LCH SwapClear's internal documents provide a completely different outlook on the development of Eurex's market share for the CCP clearing of OTC IRDs from Eurex's promotional brochures. As evidenced in Figure 30 above and Figure 31 below (see second line of the market share tables), LCH SwapClear estimates that its own market share in EUR-denominated IRDs amounted to [80-90]% in February 2020, [90-100]% in March 2020, and [90-100]% in April 2020 (and to [80-90]% in the first quarter of 2020 with [80-90]% in average from January to April 2020). Therefore, based on LCH SwapClear's internal estimates, Eurex' market share in EUR-denominated IRD in February 2020 could not possibly have been higher than [10-20]%.

(2245) As such, LCH SwapClear's own estimates of its market share strongly contradict that Eurex could at some point have gained such high market shares in EUR-denominated IRD as 18.6% in the month of February 2020.Most likely, Eurex' estimates of its own market share in February 2020 have been inflated or altered by the very important spike in clearing activity documented in LCH SwapClear's internal documents from mid-February 2020 to mid-March 2020,[2671] which was driven, as explained in the same internal document [discussion of market trends][2672].

2669 Response to the decision pursuant to Article 6(1)(c), paragraph 7.

2670 Response to the decision pursuant to Article 6(1)(c), footnote 4.

2671 [internal document].

2672 [internal document].

Figure 31

[internal document]

Source: [internal document]

(2246) As regards the Notifying Party's argument that the SO didn't give proper weight to Eurex's recently increased market position, the Commission considers that the fact that Eurex is currently growing does not mean that Eurex has already reached a market position such that it effectively constrains or challenges LCH SwapClear's market power. This is most likely not the case yet, as is evidenced by Eurex's yet modest market share, market feedback evidencing that Eurex is not considered as having a liquidity comparable to LCH SwapClear's (93% of customers consider that LCH SwapClear has a better liquidity than Eurex for EUR-denominated IRS[2673]), and the limitations to switching CCP (see Section 4.5.36.1.B.1.1.6. below) which make the perspective that the entire market might tip towards a situation where Eurex challenges LCH SwapClear's market leading position, or even surpasses LCH SwapClear in terms of global market share (across all currencies), unlikely at the present time.

(2247) These very high market share at downstream level, irrespective of the potential market segmentation, can as such be considered as a first strong indication of LCH SwapClear's dominance in the downstream market for the clearing of OTC IRD.

B.1.1.2. LCH SwapClear has a unique liquidity pool as well as the best CCP basis

(2248) LCH SwapClear's dominance in the CCP clearing market of OTC IRD is further confirmed by the fact that, as evidenced by the Commission's in-depth investigation, LCH SwapClear has the essential advantage of a unique liquidity pool and CCP basis.

(2249) *First*, the market investigation evidences that LCH SwapClear has a unique liquidity, across a large range of currencies, for the following reasons.

(2250) LCH SwapClear is frequently referred to by respondents as the CCP with the highest liquidity. For example, one customer reasons why they eventually did not change CCPs: *"Overall, the cost and the complexity. Also, other CCPs do not support (or have zero liquidity) in many of the currencies we, as a global dealer, transact in. Specifically, given the nature of OTC IRD trades, it would be necessary to close out our positions in one CCP and re-open them in another. We do not consider there to be sufficient liquidity to achieve this. Furthermore, ongoing risk management in a different CCP presents challenges. Moreover, we need to consider the risk of base effect if we use a minority CCP. Finally, no other CCP has the operational processes and procedural sophistication necessary to allow us to be comfortable processing our significant trading volumes with them."*[2674]

(2251) More generally, 64% of customers disagree with the statement that LCH, Eurex and CME have comparable overall liquidity.[2675] This is also the case on a currency per currency basis: even for EUR-denominated IRS, where the Notifying Party claims that Eurex has recently built up an increased market share, 93% of market participants considers that LCH SwapClear has the highest liquidity.[2676] Similarly,

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2673 Question 18, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2674 Question 40, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

2675 Question 24.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2676 Question 18, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

while the Notifying Party claims that the LCH basis provides clear evidence of the fierce competition LCH SwapClear faces from CME, 89% of customers considers that LCH SwapClear has the highest liquidity in USD-denominated IRS.[2677] For GBP-denominated IRS, all customers (i.e. 100% of them) indicate that LCH SwapClear has the highest liquidity%.[2678]

(2252) As regards the Notifying Party's argument that the Commission did not test the Parties' central argument that LCH SwapClear's rivals have sufficient liquidity to effectively assert competitive pressure on the merged entity, the Commission emphasizes that it has tested whether LCH, CME and Eurex have comparable liquidity,[2679] and asked additional questions regarding where the liquidity was highest for some specific currencies (EUR, USD, GBP). Given the critical importance of CCP basis and liquidity for the choice of a CCP, this appears sufficient to demonstrate that LCH SwapClear's market power downstream is linked to its very high level of liquidity. Among respondents that expressed a view on the matter, all explained that they tended to clear where liquidity is highest, and none of them commented that they chose a CCP based on a "*sufficient*" level of liquidity. This is in particular the case of Banco Santander ("*Banco Santander clears its trades in the CCP where liquidity is more easily available in principle as this usually results in larger cross margining and is more efficient*",[2680] *"The CCP we mainly use for clearing is LCH Swapclear as it clears approximately 95% of all IRS trades in EUR and therefore has the most liquidity."*[2681]), BBVA ("*We use the CCPs where the liquidity is highest rather than for any other reason.*"[2682]), Nomura ("*Highest amount of IM netting and liquidity across all currencies*"[2683]), Swiss Re ("*LCH has higher liquidity so the preference would be to keep this access.*"[2684]), Alliance Bernstein ("*We designate LCH specifically for Swaps Nordic countries where dealer liquidity is greatest*"[2685]), Commerzbank ("*LCH SwapClear, as the liquidity is better than at EUREX*"[2686], "*Strengths: Biggest Liquidity*"[2687]), Pension insurance corporation ("*Best liquidity in GBP Swaps*"[2688]) and Bank of Montreal ("*LCH , premier CCP for IRD liquidity*"[2689]).

2677 Question 19, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2678 Question 20, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2679 Question 24.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2680 Question 37, Questionnaire 21 to OTC IRD trading and clearing customers, response of Banco Santander, Doc ID 6472.

2681 Question 36.1, Questionnaire 3 to OTC IRD sell-side customers, response of Banco Santander, Doc ID 6474.

2682 Question 21.1.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of BBVA, Doc ID 6472.

2683 Question 21.1.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Nomura, Doc ID 6472.

2684 Question 23, Questionnaire 1 to OTC IRD buy-side customers, response of Swiss Re, Doc ID 6470

2685 Question 25, Questionnaire 1 to OTC IRD buy-side customers, response of Alliance Bernstein, Doc ID 6470

2686 Question 32.2, Questionnaire 1 to OTC IRD buy-side customers, response of Commerzbank, Doc ID 6470

2687 Question 37, Questionnaire 1 to OTC IRD buy-side customers, response of Commerzbank, Doc ID 6470

2688 Question 37, Questionnaire 1 to OTC IRD buy-side customers, response of Pension insurance corporation, Doc ID 6470

2689 Question 36.1, Questionnaire 3 to OTC IRD sell-side customers, response of Bank of Montreal, Doc ID 6474.

(2253) *Second*, the market investigation shows that LCH SwapClear has a unique CCP basis.

(2254) The most important criteria cited by customers for choosing a CCP are total cost of clearing/margin requirements.[2690] A clearing house's liquidity directly affects the amount of margin requirements (cash/collateral to be posted for a specific trade). This affects prices at the trading level in the sense that dealers quote different prices to customers depending on the CCP where the trade would be cleared. This reflects into the so-called "CCP basis" (see also below in Section 4.5.36.1.B.1.1.4. for more detail about networks effects in OTC IRD clearing).

(2255) The "CCP basis", or also called "differential pricing" estimates the differences in dealer pricing for different CCPs (see Footnote 2577 above). For instance, the LCH-Eurex basis estimates, in the form of a spread, the price difference that clearing an OTC IRD trade with LCH SwapClear or with Eurex would involve. The Notifying Party explains that this price difference can result from differences in CCP fees and/or differences in the amount of additional margin that the dealer would need to post with the different CCPs to clear the trade in question (given that the amount of margin required will, in part, depend on the portfolio of trades that the clearing member has already cleared with the CCP and the impact that the additional trade will have on the member's net risk position with that CCP).[2691]

(2256) To explain it succinctly, the CCP basis captures the relative attractiveness of different CCPs to dealers, including as a result of incentives that CCPs offer. Indeed, when dealers see their cost of clearing at a particular CCP decrease, this incentivises them to improve their quotes for trades cleared in that CCP. For example, when the LCH-Eurex basis for a certain trade is positive, this means that the price quoted by a dealer for the same trade is lower when cleared at LCH than at Eurex.

(2257) The market investigation confirms that the CCP basis is a factor of outmost importance for the attractiveness of CCPs to customers, which reflect the market power of CCPs. As a demonstration of the importance of the CCP basis in the choice of CCPs for OTC IRD trades, the Commission notes that 71% of customers regularly check the CCP basis for the OTC IRD products they trade,[2692] and the CCP basis is, along with liquidity, the single most important factor taken into account by customers when deciding where to clear.[2693]

(2258) As recognised by the Notifying Party, historically, the LCH basis has been positive for a variety of products and tenors, which provided buy-side market participants with a financial incentive to clear OTC IRDs with LCH SwapClear in the light of the lower costs that dealers typically faced to clear an incremental OTC IRD trade at LCH SwapClear.[2694]

(2259) According to the Notifying Party, the position of the LCH basis would have started to reverse in recent year, as illustrated by the LCH-Eurex basis for EUR-denominated IRS, the LCH-CME basis for USD-denominated IRS as well as LCH-

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2690 Question 30, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 37, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

2691 Form CO, paragraphs C.V.28-29.

2692 Question 36, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2693 Question 37, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2694 Form CO, paragraph C.V.33.

JSCC basis for JPY-denominated IRS.[2695] However, the Notifying Party did not provide LCH basis data for the other main tenors and currencies,[2696] which partly nullifies the Notifying Party's argument that recent evolutions in the OTC IRD market have resulted in a flattening of the CCP basis over the last three years, over a range of tenors and currencies. The Commission nonetheless acknowledges that, as regards EUR-denominated OTC IRDs, the LCH-Eurex basis has indeed narrowed to an important extent in the course of the past 2-3 years.[2697] This does not preclude the other findings of the Commission, namely that EUR-denominated OTC IRD only represent a fraction (around 20%) of the overall OTC IRD market, and that Eurex has so far built a consequent position in only one currency (namely EUR, while still remaining a modest player in EUR-denominated OTC IRDs, with a 2019 market share of 10% in terms of notional cleared volumes), while a significant share (40%) of respondents consider it important for them to clear all their OTC IRDs denominated in various currencies in the same CCP.[2698]

(2260) *Third*, higher liquidity and better CCP basis logically translate into a much higher attractiveness of LCH SwapClear compared to its rival CCPs. For example, one customer, Société Générale, states: *"Our preferred CCP is LCH. It still is the main CCP in the EEA and the largest for the €. When trading with clients we will use the CCP they wish. In the interbank market the default CCP is still LCH by far. We can also use Eurex. There is however still a very significant gap between LCH and Eurex. The basis between the two CCPS clearly shows the fact that paying/receiving interest are not well balanced yet at Eurex."*[2699]

(2261) The above answers also demonstrate that LCH SwapClear's competitors (that are smaller CCPs) may not be a competitive constraint on LCH SwapClear. A CCP competitor, KDPW, says about LCH SwapClear: "*the scales of our businesses are incomparable and also the geographic scopes of our activities differ a lot. Bearing this in mind (...), it is hard to say that we are direct competitors."*[2700] Furthermore, the Notifying Party's claim that, in particular for smaller portfolios, LCH is easily substitutable as CCP (as the move of DekaBank to Eurex in November 2019 would tend to evidence), contrasts with other views in the industry explaining how complex even the move of a minor portfolio of cleared trades is.[2701]

B.1.1.3. LCH SwapClear has a uniquely wide product offering and strong market power across a broad range of currencies

(2262) The Notifying Party's argument that rival CCPs such as CME or Eurex have reached liquidity and clearing costs levels that are comparable to those of LCH is not confirmed by the results of the market investigation.

2695 Form CO, paragraph C.V.34. See also Notifying Party's response to the decision pursuant to Article 6(1)(c), paragraph 32.

2696 RFI 28, question 20. The Notifying Party was only able to provide the LCH-Eurex basis for EUR-denominated IRS, the LCH-CME basis for USD-denominated IRS as well as LCH-JSCC basis for JPY-denominated IRS, all three for various tenors ranging from 1 year to 50 years.

2697 See charts provided by the Notifying Party as Annex 1 to the response to the decision pursuant to Article 6(1)(c).

2698 More specifically, 40% of customers considers it important, 34% of them indicate that "It depends", while a minority of 26% of customer considers it not very important. See Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472 – see also Section 4.5.36.1.B.1.1.3. below.

2699 Question 29.1, Questionnaire 1 to OTC IRD buy-side customers, response of Société Générale, Doc ID 6470.

2700 Question 29, Questionnaire 2 to CCP competitors, response of KDPW, Doc ID 6473.

2701 See www.clarusft.com/eurex-swaps-and-dekabank-transfer/.

(2263) *First*, as mentioned above, 64% of customers disagree with the statement that LCH, Eurex and CME offer comparable overall liquidity.[2702] Even for EUR-denominated IRS, where the Notifying Party claims that Eurex has recently built up an increased market share, 93% of market participants considers that LCH SwapClear offers the highest liquidity.[2703] For GBP, this proportion if 100%.[2704] For USD, it is 89%.[2705] This reflects into LCH's very strong market presence, even considered on a per-currency basis. In terms of notional cleared in 2019, LCH's market share is above [90-100]% for EUR, USD, GBP, CAD and CHF, and it is [80-90]% in AUD and [40-50]% in JPY. Similarly, in terms of notional outstanding volumes in 2019, LCH's market share is above [80-90]% for EUR, USD, GBP, CAD, CHF and AUD; while it is [30-40]% in JPY.[2706]

(2264) *Second*, the results of the market investigation indicate that clearing OTC IRD trades denominated in various currencies in the same CCP is important for a significant share of customers. A significant share of customers who responded to the market investigation indeed consider it important to clear all their OTC IRD trades, denominated in various currencies, in the same CCP.[2707] More specifically, 40% of customers considers it very important, 34% of them indicate that "*It depends*", while a minority of 26% of customer considers it not very important.[2708]

(2265) Regarding the Notifying Party's argument that the responses of customers suggest that the ability to clear all their OTC IRD trades, denominated in various currencies, in the same CCP seems important for only a minority of customers, the Commission notes that 40% of customers consider it "*Very important*".[2709] While 35% respond "*It depends*", the analysis of the comments from these respondents specifically clearly evidences the value they attach to the possibility of doing so. As a matter of fact, a number these respondents (i.e. the ones who responded "*It depends*") clearly explain that clearing all trades denominated in different currencies in one CCP allows them to benefit from cross-currency margin netting effects which they value, and that only liquidity considerations or client demand (for sell-side customers) would tend to make them depart from this line of conduct. For instance, Balyasny Asset Management states: "*Ideally we would be able to use one single CCP, would have the potential to consolidate margin requirements, however this must be factored in primarily with market liquidity.*"[2710] Bluecrest capital explains that "*Splitting currencies across different CCPs may result in loss of cross-currency margin netting benefits*".[2711] Caxton International explains in the same vein that: "*because dealers providing the liquidity cannot net trades cleared at different CCPs it forces them to lean towards one venue/CCP. Clearing through multiple CCPs increases collateral costs and thereby impacts pricing.*"[2712] Credit Suisse is also of the opinion that "*it is*

2702 Question 24.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2703 Question 18, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2704 Question 20, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2705 Question 19, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2706 RFI 28 reply, Annex M.9564_RFI 28 Q1c iii.
2707 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2708 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2709 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2710 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Balyasny Asset Management , Doc ID 6472.
2711 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Bluecrest capital , Doc ID 6472.
2712 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Caxton International , Doc ID 6472.

more efficient from a risk offset and margin optimization perspective however to have the majority of our cleared portfolio at on CCP. From a client agency perspective, client preference is an important driver of CCP support. It matters to those clients that they have the benefits of a combined portfolio of trades within the same CCP / margin calculation, to avoid losing some benefit from multi-currency margin, which would be achieved from having trades in the same CCP."[2713] Natwest confirms that "*there are netting and margin benefits if all in one CCP.*"[2714] Nomura similarly explains that "*From a margin and cost perspective, having a single central counterparty makes sense as it reduces the IM and infrastructure cost and creates a pool of liquidity. However, as a market maker we are active across all CCPs to support client demand at multiple CCPs.*",[2715] while Unicredit states: "*Main reasons are IM and cross margining to increase efficiency e and decrease costs*".[2716] As a matter of fact, by only adding these seven customers that are of the view that there are benefits to clearing all trades denominated in various currencies in one CCP (but might consider acting differently because of liquidity or client preference considerations) to the 19 which consider this to be very important, one can compute that 55% of customers either consider it very important to clear all trades denominated in various currencies in one CCP or identify clear benefits in doing so.

(2266) The fact that clearing all OTC IRDs denominated in various currencies in the same CCP is important for a significant share of customers further outlines LCH SwapClear's exceptional market situation for the clearing of OTC IRDs. LCH SwapClear has indeed a very strong market position across unexceptionally large range of products, currencies and tenors.

(2267) Firstly, as regards products LCH SwapClear's offering of OTC IRD clearing service is far wider than the offering of its competitors. As illustrated by Figure 32 below, CME and Eurex are not active in a number of category of OTC IRD contracts (namely non deliverable IRS, basis overnight/IBOR, VNS for both Eurex and CME, as well as swaptions and zero coupon for Eurex, and inflation zero coupon for CME) and for the categories of OTC IRD contracts where they are active, they provide OTC IRD services for fewer types of contracts due to restrictions in terms of currency and/or duration.[2717]

2713 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Credit Suisse , Doc ID 6472.

2714 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Natwest, Doc ID 6472.

2715 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Nomura, Doc ID 6472.

2716 Question 22, Questionnaire 21 to OTC IRD trading and clearing customers, response of Unicredit, Doc ID 6472.

2717 Form CO, C.V.110.

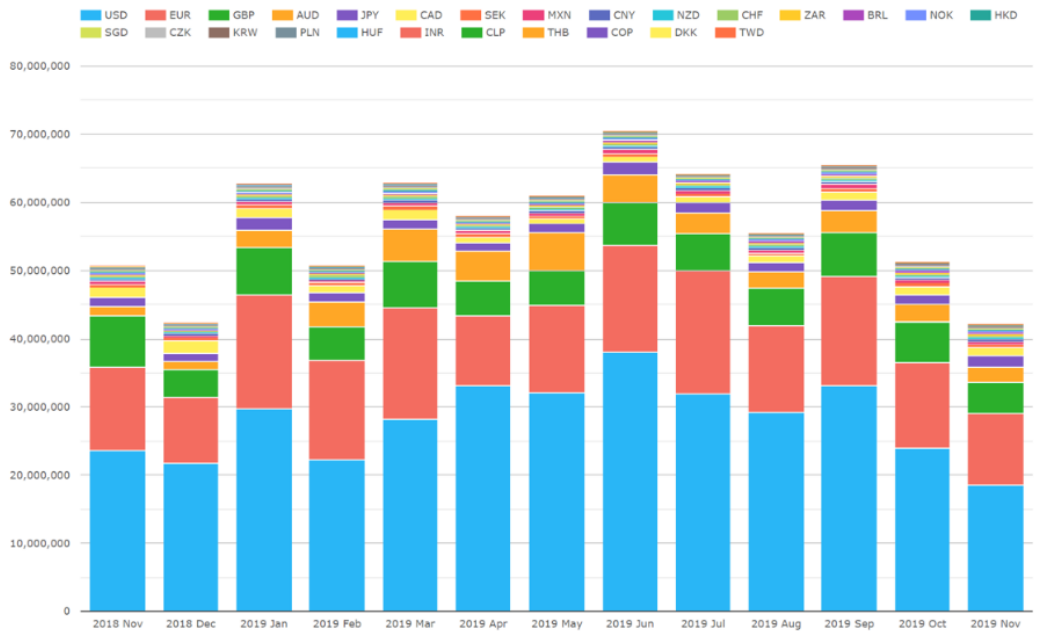
Figure 32:

IRD Product	CME	Eurex	LCH SwapClear
IRS	- Up to 11Y: HUF, CZK, PLN, ZAR, CNY - Up to 15Y: NZD, HKD, SGD - Up to 21Y: CLP - Up to 31Y: CAD, JPY, CHF, AUD, SEK, DKK, NOK, MXN, KRW - Up to 51Y: USD, EUR, GBP	- Up to 10Y: PLN - Up to 30Y: CHF, JPY, DKK, NOK, SEK - Up to 50Y: EUR, GBP, USD	- Up to 11Y: CZK, HKD, HUF - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK, ZAR - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Non Deliverable IRS	N/A	N/A	- Up to 5.5Y: CNY - Up to 11Y: BRL, INR, THB, TWD - Up to 15.5Y: CLP, COP, KRW
Basis	- Up to 30Y: Fed Funds vs Libor (USD), SOFR vs Fed Funds, SOFR vs. Libor - Up to 31Y: AUD, JPY - Up to 51Y: USD, EUR, GBP	- Up to 30Y: CHF, JPY - Up to 50Y: EUR, GBP, USD	- Up to 11Y: CZK, HKD, HUF, ZAR - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Basis Overnight / IBOR	N/A	N/A	- Up to 5.5Y: NZD - Up to 31Y: AUD, CAD, JPY - Up to 51Y: EUR, GBP, USD
OIS	- Up to 3Y: CAD - Up to 6Y: AUD - Up to 10Y: INR - Up to 20Y: COP - Up to 30Y: SOFR, USD, EUR, GBP, JPY	- Up to 30Y: EUR, GBP, USD, CHF, JPY, SEK	- Up to 5.5Y: NZD - Up to 31Y: AUD, CAD, CHF, JPY - Up to 51Y: EUR, GBP USD
Zero Coupon	- Up to 10Y: BRL - Up to 20Y: CLP - Up to 50Y: USD, EUR, GBP	N/A	- Up to 11Y: CZK, HKD, HUF - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK, ZAR - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Inflation Zero Coupon	N/A	- Up to 30Y: EUR - Up to 50Y: GBP	- Up to 30Y: EUR, FRF, USD - Up to 50Y: GBP
FRA	- 3D to 3Y: USD, EUR, GBP, JPY, AUD, CAD, CHF, CZK, DKK, HUF, JPY, NOK, NZD, PLN, SEK, SGD, ZAR	- Up to 2Y: DKK, GBP, USD - Up to 3Y: EUR, GBP, USD, CHF, JPY, SEK	- Up to 3Y, 3M: CHF, CZK, DKK, EUR (EURIBOR-Reuters index), GBP, HUF, JPY, NOK, PLN, SEK, USD - Up to 3Y: EUR (LIBOR index)
VNS	N/A	N/A	- Up to 11Y: CZK, HKD, HUF - Up to 16Y: NOK, PLN - Up to 21Y: MXN, NZD, SGD - Up to 31Y: AUD, CHF, DKK, SEK, ZAR - Up to 41Y: CAD, JPY - Up to 51Y: EUR, GBP, USD
Swaptions	Up to 30Y: USD (inferior or equal to 2 years expiry)	N/A	N/A

Source: https://www.lch.com/services/swapclear/what-we-clear, https://www.eurexclearing.com/clearing-en/markets-services/eurex-otc-clear/interest-rate-swaps, https://www.cmegroup.com/trading/interest-rates/cleared-otc.html Note: SOFR refers to the Secured

(2268) Secondly, as illustrated in Table 44 to Table 63 above, LCH SwapClear has very high market shares (in excess of [80-90]%) for IRS, OIS, FRAs, as well as IRD contracts denominated in EUR, USD, GBP, CAD, AUD, CHF. Given that OTC IRD contracts denominated in EUR, USD, GBP, CAD, AUD, and CHF account for over [90-100]% of the overall OTC IRD market (see Figure 33 below), this means that LCH SwapClear has a market share in excess of [80-90]% for currencies representing more than [90-100]% of the OTC IRD market.

Figure 33:



Source: Notifying Party's response to the decision pursuant to Article 6(1)(c), Figure 5 / Clarus using CCP View data: https://www.clarusft.com/four-trends-in-swaps-data-2019/ (last accessed on 13 September 2020)

(2269) Besides LCH SwapClear, no other CCP has succeeded in building up an even modest market position (with a market share above [0-5]%) in more than one single currency among the six currencies whose contracts are the most cleared, namely by order of importance USD, EUR, GBP, AUD, JPY, and CAD. Based on the 2019 market share figures, in terms of notional cleared volumes, provided by the Notifying Party (see Table 44 to Table 63 above):[2718]

(a) **Eurex** has built a (limited) market share of [10-20]% in EUR-denominated OTC IRD but its market share remains below [0-5]% for the CCP clearing of OTC IRD contracts denominated in USD and GBP and (ii) it did not provide CCP clearing services for OTC IRD contracts denominated in CAD, AUD, and JPY. As such, Eurex's increased market share in EUR-denominated OTC IRD as outlined by the Notifying Party[2719] is not representative of Eurex's overall strength in the clearing of OTC IRD. This is confirmed by the fact that Eurex

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2718 For the avoidance of doubts, the Commission notes that with respect to a potential sub-segmentation of the OTC IRD clearing (and trading) market by type of contract of currency, the Commission's analysis of the incentive LCH SwapClear would have to engage in any of the Customer foreclosure strategies, or the effect such Customer foreclosure strategies would remain the same irrespective of whether the provision of trading and clearing services for OTC IRDs is segmented by type of contract or currency. This is because the Customer foreclosure strategies analysed in this section apply to D2C trading as a whole (including or excluding off-venue trading, depending on the precise Customer foreclosure strategy). Whether these foreclosure strategies are considered as being applied at the level of the overall D2C clearing market, or on a per-contract or per-currency basis (for all contracts and all currencies simultaneously) is an artificial distinction which has no practical consequence on the way any of the Customer foreclosure strategies would be implemented in practice, as well as no bearing on the analysis conducted with respect to the incentive LCH SwapClear would have to engage in any of the Customer foreclosure strategies, or the effect such Customer foreclosure strategies.

2719 As explained in Section 4.5.36.1.B.1.1.1. above, this increase, if any, is very likely not as high as claimed by Eurex in the document quoted by the Notifying Party in footnote 4 of its response to the decision pursuant to Article 6(1)(c), or has receded back to a level below 8% in the next few months.

itself mentions that: "*Eurex concurs that maintaining liquidity is in theory less difficult for a given clearing house than building it up, but only to the extent that this clearing house has already reached a certain critical mass. Eurex does not consider that it has yet reached this point.*"[2720]

(b) **CME** has built a (limited) market share of [5-10]% in USD-denominated OTC IRD contracts but its market share remains below [0-5]% for the CCP clearing of OTC IRD contracts denominated in EUR, GBP, AUD, and JPY, and amounts to only 1% for CAD denominated OTC IRD contracts.

(c) **JSCC** has built a (material) market share of [50-60]% in JPY-denominated OTC IRD contracts but it did not provide CCP clearing services for any OTC IRD contracts denominated in the other currencies (namely, EUR, USD, GBP, AUD, of CAD).

(d) **ASX** has built a (limited) market share of [10-20]% in AUD-denominated OTC IRD contracts but it did not provide CCP clearing services for any OTC IRD contracts denominated in the other currencies (namely, EUR, USD, GBP, AUD, of CAD).

(2270) Finally, the Commission notes that the above assessment evidencing above about how the importance for customers of beingto be able to clear OTC IRDs denominated in multiple currencies in a single CCP, and the consequent unique market strength of LCH SwapClear arising from its offering of OTC IRDs denominated in numerous currencies (unparallel by its rivals) is a further factor evidenceding LCH's dominance upstream (noticeably by comparison to all its competitors) is in line with by LCH SwapClear's top management's views regarding the competitive dynamics in the OTC IRD market, as confirmed by the Notifying Party's internal documents. In an email dated 13 February 2020, commenting on Eurex's communication about Eurex's increased market share in EUR-denominated IRDs, [LCH senior employee], writes: [market analysis].[2721]

B.1.1.4. The clearing market(s) for OTC IRD are characterised by strong network effects

(2271) In order to assess the market power of LCH SwapClear in the OTC IRD clearing, the Commission considered the importance of network effects in this market, and its consequence on the constraints faced by LCH SwapClear. Based on the results of its in-depth investigation and the evidence available to it, the Commission considers that the CCP clearing of OTC IRD is a market subject to strong network effects, which have the consequence to reinforce LCH SwapClear's dominance and to restrain the competitive constraints exercised by its competitors. As such, in addition to being currently the dominant player in CCP clearing of OTC IRD contracts, LCH SwapClear's dominance is reinforced and strengthened by the strong network effects that characterise the clearing market for OTC IRDs.

(2272) *First*, according to the Non-Horizontal Merger Guidelines, "*[n]etwork effects occur when the value of a product for a customer increases when the number of other customers also using it increases. Examples include communication devices, specific software programmes, products requiring standardisation, and platforms bringing together buyers and sellers.*"[2722] The market for CCP clearing of OTC IRD contracts

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2720 Minutes of conference call with Eurex, dated 12 August 2020, Doc ID 6151

2721 ID4698-71294

2722 Non-Horizontal Merger Guidelines, footnote 4.

therefore corresponds to one example of markets characterised by strong network effects described by the Non-Horizontal Merger Guidelines, namely the "platforms bringing together buyers and sellers".

(2273) *Second*, the importance of network effects in CCP clearing of OTC IRDs is extensively confirmed by the response of customers and competitors to the market investigation. For instance, a sell-side customer, Danske Bank A/S explains that "*there is a huge network externality in clearing*",[2723] and that "*Network effect is the natural strength" of LCH SwapClear*".[2724] Similarly, Eurex mentions that "*Given that network effects reduce key customers' implicit costs through multilateral netting effects, CCPs thus vie to attract "critical mass" or, in the case of OTC IRD, to attract "critical mass" away from LCH SwapClear*".[2725] In the same vein, BME, a clearing competitor, insists that network effects restricts the competitive constrains exercised by non-incumbent CCPs. BME indeed states that: "*With a large number of liquidity providers and counterparties concentrated in the same CCP, it is extremely difficult for other non-incumbent CCPs to offer an attractive commercial package. Medium to small Financial Companies (which were our target) ask the non-incumbent CCP that important IRD participants are members of the non-incumbent CCP. However, these important IRD participants have two incentives to not join the non-incumbent CCP; 1) that if they concentrate their business in a single CCP they maximize netting and margin efficiency, 2) we believe that Swapclear offers them good economic incentives*." [2726] OTC HK, a clearing competitor, also explains that LCH's SwapClear's strengths comes from the fact that "*Most of the banks connected to LCH and majority of the liquidity is there*".[2727]

(2274) *Third*, the importance of network effects in CCP clearing of OTC IRDs is described by market reports. For instance, in report on "[*t]he evolution of OTC interest rate derivatives markets*", the Bank of International Settlements (BIS) explains: "*A network effect refers to the effect that an additional participant in the network has on others in the network. In the case of central clearing, each additional clearing participant increases the benefit of central clearing by increasing the liquidity of the products cleared, enabling multilateral compression opportunities and allowing any common counterparties to remove counterparty risk by novating their contracts to the CCP*." [2728]

(2275) *Fourth*, in the market for CCP clearing of OTC IRD contracts, the network effects result from the fact that the more customers clear the OTC IRD contracts in the same CCP, the higher the liquidity for those contract is in that CCP, which in turn attracts customers. As mentioned above in Section 4.5.36.1.B.1.1.2., liquidity is the most important factor taken into account by customers when deciding where to clear, together with the CCP basis.[2729]

2723 Question 41.1, Questionnaire 3, to OTC IRD sell-side customers, Doc ID 6474, response of Danske Bank A/S.

2724 Question 44, Questionnaire 3, to OTC IRD sell-side customers, Doc ID 6474, response of Danske Bank A/S.

2725 Question 19, Questionnaire 2, to OTC IRD clearing competitors, Doc ID 6473, response of Eurex.

2726 Question 16.1, Questionnaire 2, to OTC IRD clearing competitors, Doc ID 6473, response of BME.

2727 Question 22, Questionnaire 2, to OTC IRD clearing competitors, Doc ID 6473, response of OTC HK.

2728 See BIS (Bank for International Settlements) Quarterly report of 8 December 2019, "The evolution of OTC interest rate derivatives markets", page 77 (https://www.bis.org/publ/qtrpdf/r_qt1912i htm, last accessed on 13 September 2020).

2729 Question 37, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

(2276) In addition, liquidity impacts the CCP basis, which is the other factor that customers take the most into account to choose their CCP for OTC IRD contracts. [2730] This is because network effects generate higher liquidity on LCH SwapClear, which itself causes the basis of the most liquid CCP to remain positive compared to other CCPs.

(2277) These network effects lead to a high concentration of CCP clearing services for OTC IRDs. Feedback from the market investigation indicates that dealers and buy-side customers tend to clear where the market clears. For instance, UBS, a sell-side customer, indicates that "*as long as Eurex is not where the majority of the market clear, there will not be that much volumes cleared on Eurex compared to LCH SwapClear*".[2731] This is also confirmed by the market share data of the OTC IRD clearing market which is extremely concentrated, with a HHI above 8 200 in term of notional cleared volumes (for the overall OTC IRD clearing market) .

(2278) *Fifth*, the Commission notes that the importance of network effects in CCP clearing impacts both dealers and customers (therefore both D2C and D2D trades). Indeed, while dealers explain during the market investigation that buy-side customers decide where to clear, the attractiveness of a quote has an important effect on buy-side customers' choice of CCP. *First*, this is evidenced by the responses of buy-side customers to the market investigation. Asked what would be their reaction if they received different quotes for an OTC IRD trade depending on where they intend to clear the trade, 67% of buy-side clients indicates that the CCP price would take precedence in their choice, while 33% of them explain that CCP in itself would take precedence, regardless of the price difference.[2732] *Second*, in the absence of specific instructions from buy-side customers, dealers have to choose the clearing option that provides the best overall price in order to satisfy their best execution requirements.[2733] These two elements show that the benefits stemming from clearing where everyone else clears (*i.e.* the better CCP basis stemming from higher liquidity and network effects) apply to the buy-side as well.

(2279) *Sixth*, these network effects lead to a low attractiveness for customers to clear in several CCPs or to switch CCPs, even in the event of a deterioration of the CCP services of the leading CCP (namely of LCH SwapClear). This is illustrated by responses to the market investigation. Asked how they would react if their trading venue was no longer able to offer the same clearing connectivity to LCH SwapClear, 53% of buy-side customers, and 44% of sell-side customers would consider switching trading venue, but only 7% of buy-side customers and 7% of sell-side customers would consider switching CCP.[2734] Similarly, in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP, 62% of customers indicate that they would switch trading venue, and absolutely none would switch CCP. In this scenario, a small minority (3%) of customer indicates that they would stay with the same trading venue and CCP despite the issue, and 35% of customers would try and negotiate the changes or retaliate.[2735] These switching figures also translates the fact that, while both the trading and

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2730 Question 37, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2731 Minutes of conference call with UBS dated 19 August 2020, Doc ID 6285.
2732 Question 13, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.
2733 Minutes of conference call with UBS dated 19 August 2020, Doc ID 6285.
2734 Question 21, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474; Question 23, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.
2735 Question 29, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

clearing of OTC IRDs are characterised by network effects, these network effects are by far stronger for clearing services.

(2280) In relation to the Notifying Party's claim that upcoming industry changes related to the transition away from the interbank offered rate ("IBOR") interest rate benchmarks will add further to the competitive pressure LCH faces from rival CCPs such as Eurex and CME,[2736] as well as potential new entrants such as ICE, the Commission notes that feedback from the market investigation contradicts this claim. Asked how the transition away from IBOR interest rate benchmarks will impact competition in OTC IRDs, the majority of buy-side and sell-side customers believe that this changes will not have any major impact on competition.[2737] Very few respondents think this change will lead to more competition and some think that the change will reduce liquidity at least in the short term.

B.1.1.5. The likelihood of entry and expansion of LCH SwapClear's rivals is limited given the high barriers to enter and expand in OTC IRD clearing

(2281) In order to assess the market power of LCH SwapClear in the OTC IRD clearing, the Commission considered the extent of these barriers to enter this market, and its consequence on the constraints faced by LCH SwapClear. Based on the results of its in-depth investigation and the evidence available to it, the Commission considers that barriers to enter the CCP clearing of OTC IRD are high, with the consequence of reinforcing LCH SwapClear's dominance and restraining the competitive constraints exercised by its potential competitors. As such, in addition to being currently the dominant player in CCP clearing of OTC IRD contracts, LCH SwapClear's dominance is reinforced and strengthened by the presence of high barriers to enter the OTC IRD clearing market. Against this background, the results of the market investigation do contradict the Notifying Party's claim that LCH SwapClear is constrained by the threats of entry of other market participants.[2738]

(2282) *First*, in order to assess the extent of the barriers to enter the downstream OTC IRD clearing market, the Commission assessed the characteristics of the CCP clearing market for OTC IRDs. Based on the evidence available to it, the Commission considers that barriers to enter the CCP clearing market for OTC IRD are high as a consequence of the fact that the OTC IRD CCP clearing market is characterised by strong network effects. Indeed, as explained in the Horizontal Merger Guidelines, "*economies of scale and network effects may make entry unprofitable unless the entrant can obtain a sufficiently large market share*".[2739] In the present case, as explained Section 4.5.36.1.B.1.1.4. above, network effects are very strong in the CCP clearing of OTC IRDs. While these network effects make it very difficult for the current rivals of LCH SwapClear to compete, as explained in the previous section, these network effects make it even more difficult for potential entrants to establish a meaningful presence in the market. These network effects indeed make it extremely hard for a new entrant to obtain a sufficient large customer base and be profitable. In fact, even assuming that potential competitors were to enter the market (*quod non*), there is no objective reason to believe that these potential entrants could attract more customers than LCH's SwapClear current competitors. Even in the

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2736 Form CO, paragraph C.V.195.

2737 Question 28, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 29, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

2738 Form CO, paragraphs C.V.193-194. Notifying Party's response to the decision pursuant to Article 6(1)(c), paragraph 101.

2739 Horizontal Merger Guidelines, paragraph 72.

unlikely event of an entry, LCH SwapClear's dominance would therefore not be challenged.

(2283) *Second*, in order to assess the extent of the barriers to enter the downstream market, the Commission asked market participants whether they expect any new CCP to enter the OTC IRD clearing market in the near future. The results of the market investigation are unequivocal in this regard. None of the CCPs who responded to the market investigation expect any new CCP to enter the market in the next 2-3 years, even with the help of sponsors or a commercial partnership.[2740] For instance, Eurex states that they are: *"not aware of any firm that is planning to start a CCP clearing service for OTC IRD in the next 2 – 3 years nor is it expecting any entry. Deutsche Börse notes for completeness that a number of press reports indicated that ICE was planning to launch a clearing service for OTC IRD in 2014 but ultimately did not do so."*[2741]

(2284) While the Notifying Party claims that ICE remains a credible entrant into the OTC IRD clearing and that ICE's entry poses a further credible constraint on LCH SwapClear, the Commission considers that this argument is speculative and contradicted by the results market investigation. As mentioned recital (2348) above, no CCP expects a new player to start offering clearing services for OTC IRD (including ICE). In addition, as explained by Eurex, "*a number of press reports indicated that ICE was planning to launch a clearing service for OTC IRD in 2014 but ultimately did not do so"* (emphasis added).[2742] The Commission notes that ICE's entry was discussed in the press a long time ago (namely, 6 years ago) without any material developments since then. LCH's understanding that […]is purely speculative and does not have sufficient evidentiary value to consider that […].[2743] In addition, LCH SwapClear's behaviour in the past 6 years evidences that it is not constrained by the threat of ICE's entry, contrary to the Notifying Party's view. In the past 6 years where, according to the Notifying Party, LCH SwapClear was constrained and threaten by ICE's entry, LCH SwapClear was able to profitably and sustainably increase its prices, in terms of memberships and fees.

(2285) Based on the above and the evidence available to it, the Commission concludes that LCH SwapClear's dominance is further reinforced and strengthened by the presence of high barriers to enter.

B.1.1.6. LCH SwapClear's customers have limited possibilities of switching CCP because switching CCP for OTC IRD clearing is difficult, expensive, and lengthy

(2286) As a further step to assess the market power of LCH SwapClear in the OTC IRD clearing, the Commission considered the switching possibilities available to customers. Based on the results of its in-depth investigation and the evidence available to it, the Commission considers that it is difficult for customers of OTC IRD clearing services to switch CCPs because there are few alternative suppliers and they face high switching costs. As such, in addition to being currently the dominant player in CCP clearing of OTC IRD contracts, LCH SwapClear's dominance is reinforced and strengthened by the difficulty for customers to switch. Against this

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2740 Question 25, Questionnaire 2 to CCP competitors, Doc ID 6473.
2741 Question 25, Questionnaire 2 to CCP competitors, Doc ID 6473.
2742 Question 25, Questionnaire 2 to CCP competitors, Doc ID 6473.
2743 [Competitive analysis of the parties], Response to the decision pursuant to Article 6(1)(c), paragraph 100.

background, the results of the market investigation do contradict the Notifying Party's claim that LCH SwapClear is constrained by the fact that customers could switch – or credibly threaten to switch all, or a large portion, of their OTC IRD clearing, and that CCP switching is no longer unattractive, complex or costly.[2744]

(2287) *First*, the Commission considered whether customers could counter the Customer foreclosure strategies by switching away from LCH SwapClear and clearing fewer OTC IRDs with it. The Commission concluded that it is very unlikely that customers would start clearing fewer OTC IRDs in reaction to one of the Customer foreclosure strategies, for the following reasons.

(2288) Firstly, a large number of cleared OTC IRD trades are subject to mandatory clearing obligation, for which customers do not have the discretion whether to clear or not. LCH indeed estimates that currently more than [a very high percentage] of the trades it clears and that originated on an SEF, OTF or MTF, are subject to mandatory clearing.[2745] As a consequence, only [a small percentage] of these trades could potentially be settled bilaterally. In addition, according to a BIS report, 60% of all OTC IRD trades were cleared in 2018.[2746]

(2289) Secondly, the market investigation reveals that clearing is important for customers, even when not a legal requirement. This is evidenced by the fact that 81% of buy-side customers and 90% sell-side customers indicate they clear always or most of the time.[2747] This is also evidenced by the fact that market participants are incentivised to clear OTC IRD contracts by the uncleared margin rules. According to these rules, which aim to encourage central clearing, counterparties to an uncleared OTC IRD trade may have to post initial margins.[2748] The uncleared margin requirements are currently being phased-in based on firms' categorisation and derivatives volumes, as a consequence of which more firms will be soon required to post initial margins for OTC IRDs and, hence, will be incentivized to clear more OTC IRDs.[2749] According to the consultancy Greenwich, for instance the uncleared margin requirements "*will drive the biggest change in the OTC derivatives markets since the implementation of mandatory clearing*".[2750]

(2290) *Second*, the Commission assessed whether customers can switch their OTC IRD cleared trades gradually and individually at limited cost. The results of the market investigation did not confirm the Notifying Party's view that participants could easily switch their cleared trades gradually and individually at limited cost. The phrase "*we*

2744 Form CO, paragraphs C.V.198ff. Notifying Party's response to the decision pursuant to Article 6(1)(c), paragraphs 71ff.

2745 Form CO, paragraph C.V.37.

2746 BIS, Incentives to centrally clear over-the-counter derivatives, 19 November 2018, page 17, available at https://www.bis.org/publ/othp29.pdf (last accessed on 17 September 2020).

2747 Question 29, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 36, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

2748 Form CO, paragraph C.V.40.

2749 Form CO, paragraph C.V.40. The Commission notes that the European Supervisory Authorities (EBA, EIOPA and ESMA – ESAs), in response to the COVID-19 outbreak have published joint draft Regulatory Technical Standards (RTS) to amend the Delegated Regulation on the risk mitigation techniques for non-centrally cleared OTC derivatives (bilateral margining), under the European Markets Infrastructure Regulation (EMIR), to incorporate a one-year deferral of the two implementation phases of the bilateral margining requirements (see press release: https://eba.europa.eu/joint-rts-amendments-bilateral-margin-requirements-under-emir-response-covid-19-outbreak, last accessed on 14 September 2020).

2750 See https://www.greenwich.com/market-structure-technology/top-10-market-structure-trends-2020, (last accessed on 14 September 2020).

clear where the market clears" is in essence what many respondents explained. About the possibility to switch CCP, for example, Société Générale, as a sell-side customer, states: *"It depends on how the market would react as a whole. If the whole market (D2D and D2C) moves gradually to another CCP …, we would follow.*"[2751]

(2291) Firstly, in order to assess the ease to switch and the probabilities that customers would switch away from LCH SwapClear, the Commission asked customers what would prompt their company to switch CCP for new OTC IRDs trades.[2752] The responses from customers show the scope for customers' switching is very limited and that market participants would switch CCP in three following scenarios:

(a) In case of a regulatory-driven switch, for instance due to Brexit,[2753] as illustrated by the responses of Landesbank Berlin AG and Banco Santander. Asked what could prompt their company to switch CCP, these customers respectively answers "*BREXIT preparation*"[2754] and "*Regulatory / Political changes*".[2755] In the same vein, some customers mention that they have prepared for a potential switch of CCP in case this was necessary due to Brexit (as further explained in recital (2366) below). In the same vein, while stating that there would be "*No reason*" for them to switch, the Bank of Montreal explains: "*we would never bifurcate our portfolio unless we lost margin netting benefits or there is a regulatory requirement to clear at a new CCP*".[2756]

(b) In case new OTC IRD products are not available in their usual CCP, as illustrated by sell-side customer Natwest Markets, which explains that "*If a CCP offered a new product that was not available elsewhere, we would consider becoming a member of a new CCP based on client demand*".[2757] In this regard, there is no objective reason to believe that LCH SwapClear would not offer clearing services for new OTC IRD contracts. As such, the probability that customers would switch as a result of this event is low.

(c) In case clearing with an alternative CCP would become more attractive. By way of example, buy-side customer Mavors Investment Management explains that a reason for its company to switch would be the "*market liquidity*".[2758] In addition, sell-side customer Nomura International Plc explains that "*The choice*

2751 Answer to the question how the customer would react to a permanent 5-10% increase in clearing costs. Question 41, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

2752 Question 30, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2753 See, e.g., Question 30, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, responses of Landesbank Berlin AG ("*BREXIT preparation*") or BANCO SANTANDER ("*Regulatory / Political changes*"); Question 24.3.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response Carmignac Gestion ("*We have fully set up the possibility of clearing at [redacted] in the wake of Brexit uncertainties and are now ready to swich from LCH to [redacted] if necessary*"), response of Landesbank Hessen-Thüringen ("*BREXIT – Regulatorische Anordnungen - nur noch Clearing in EU 27 Staaten")*

2754 Question 30, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Landesbank Berlin AG.

2755 Question 30, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Banco Santander.

2756 Question 30, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Bank of Montreal.

2757 Question 30, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472,, response of Natwest Markets.

2758 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Mavors Investment Management.

of CCP and exchanges are mainly down to where the market liquidity exists. As a market maker we will facilitate client trades on the CCP of their choice, with ongoing hedging in the most liquid market".[2759] In this regard, given that LCH SwapClear benefits from the best market liquidity across the main currencies (as explained in Section 4.5.36.1.B.1.1.3.), the probability that customers would switch as a result of this event is low.

(2292) While the feedback received from the market further indicates that customers could switch under these three above-mentioned scenarios (notwithstanding the fact that the first one of these scenarios is utterly uncertain and the two others appear very unrealistic), the market investigation reveals that customers would actually switch provided that the benefits of switching CCP would exceed the costs and loss associated with switching away from LCH SwapClear. By way of example, Lloyds Banking Group Plc explains that, the reasons for (and benefits of) switching away to a new CCP would have "t*o be weighed vs the expense and effort of membership of a new CCP*".[2760] In the same vein, Bluecrest Capital mentions that, for instance, a "*5-10% increase may not be worth the operational burden of switching CCPs*". [2761]

(2293) Secondly, in order to assess the ease of switching, the Commission asked customers whether they agreed with the statement that their company "*would be able to switch CCPs in days/weeks in the ordinary course of trading at minimal cost, following an individual and gradual switching strategy (i.e. a unilateral switch without the whole market switching/coordinated action between market participants)*".[2762] The responses of the market investigation reveal that a large number of buy-side customers (namely 64%) disagree with this statement, and that a very large share of sell-side customers (namely 82%) disagree with this statement.[2763]

(2294) As regards the Notifying Party's argument that the SO failed to properly test the ease and low cost of the gradual switching mechanism available to customers, the Commission explicitly asked customers about the steps required[2764] and the costs they would incur[2765] in switching CCP for OTC IRDs "*individually and gradually*", as opposed to "*a one-off transfer of your entire outstanding portfolio of cleared trades*".[2766] If the gradual switching strategy described by the Notifying Party in the response to the SO as well as the response to the decision pursuant to Article 6(1)(c) is so complicated and bespoke that it is known to only a minority of customers and would have required some extensive explanation to be described to customers (implying that they are presently not even aware of the mere existence of such strategies), then the Commission considers at any rate that such a strategy is unlikely to constrain or pose a credible threat to LCH SwapClear. In order to consider that the possibility that customers have to switch CCPs constitutes an important competitive constraint on LCH SwapClear's activities, it should be established that at least a material portion of customers have the ability to switch, and that they know how to

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2759 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Nomura International Plc.

2760 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Lloyds Banking Group Pl.

2761 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472, response of Bluecrest Capital.

2762 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2763 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2764 Question 32, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472

2765 Questions 33 and 33.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472

2766 Question 34, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472

do so. In this case, the Notifying Party argues precisely that customers lack the required knowledge about switching strategies, explaining that the Commission should have taken steps to explain in details in its questionnaires the concept and assumptions underpinning the gradual switching strategy that forms the basis of the Parties' submissions.

(2295) Thirdly, the Commission asked customers to provide an estimate of the costs associated with such an individual and gradual switching strategy.

(2296) The market investigation reveals that the time and cost associated with such an individual and gradual switching strategy is unclear to a number of market participants, which further lessen the prospect and likelihood of customers switching. By way of example, Danske Bank A/S, as a sell-side customer, explains: *"First of all, we do not have previous experience of the scale of the exercise so it would require thorough analysis including business considerations, legal review and technical analysis*."[2767] In the same vein, Société Générale states: "*Given our positions, the bid/offer spread plus the volatile CCP price basis it is hard to predict the likely cost of this activity but we expect it to be extremely expensive"*.[2768]

(2297) The market investigation shows that such an individual and gradual switching strategy would be significantly costly. It results from the feedback received that two types of costs would have to be borne by customers: one the one hand, the costs linked the connection to a new CCP, and on the other hand, the costs linked to the transfer of the risk portfolio.

(a) Regarding costs linked the connection to a new CCP, these are likely to be mainly borne by buy-side customers because unlike large dealers, buy-side customers are usually not already connected to several CCPs. From the perspective of buy-side customers, by way of example, Ilmarinen Mutual Pension Insurance Company explains: "*The switch of CCP would cause change for lots of processes and it would be very slow and resource demanding process*",[2769] Kapan Pensioner, and another buy-side customer, adds that: "*Of course there would be costs with legal work and IT consultance*".[2770] The significance of the costs of setting up a connexion with a new CCP is confirmed by the Bank of Montreal, a sell-side customer, explaining that "*Onboarding with a new CCP is expensive, internal approvals must be sought, and technology and operations would need to be reconfigured*".[2771]

(b) Conversely, the costs linked to the transfer of the risk portfolio are likely to affect sell-side customers in a greater proportion than buy-side customers given the large size of their portfolios (i.e. of the assets that would need to be switched away to a new CCP). By way of example, Société Générale, a sell-side customer, explains "*We would find the transition to another CCP*

2767 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Danske Bank A/S, Doc ID 6472.

2768 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Société Générale, Doc ID 6472.

2769 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Ilmarinen Mutual Pension Insurance Company, Doc ID 6472.

2770 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Kapan Pensioner, Doc ID 6472.

2771 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of the Bank of Montreal, Doc ID 6472.

extremely onerous and expensive",[2772] Banco Santander, a sell-side customer, adds: "*the cost would be very high*",[2773] and the Lloyds Banking Group Plc, a sell-side customer, states: "*In addition the cost of moving our entire portfolio of trades is likely to be substantial*",[2774] and even Bluecrest Capital, a buy side customer, warns that "*Moving large legacy books between CCPs is expensive and time-consuming and it is unlikely to be efficient to straddle new and legacy positions across multiple CCPs*". [2775]

(2298) Fourthly, the market investigation indicates such an individual and gradual switching strategy would be lengthy. By way of example, according to buy-side customer Ilmarinen Mutual Pension Insurance Company, "*The switch of CCP "would be very slow"*".[2776] In addition, sell-side customer Lloyds Banking Group Plc estimates that such a switch would take at least 2 years. This company explains: "*A change to another clearing venue would be a considerable undertaking with a substantial amount of governance and technical change involved. This is something that would likely take 2 years or more to do from scratch*".[2777] In addition, it results from the feedback received that two procedures would require time for customers to switch: one the one hand, the time needed to connect to a new CCP, and on the other hand, the time required to transfer of the risk portfolio.

(a) For the same reasons that explained above, the sell-side customers would generally be less affected by the time required to connect to a new CCP because, unlike the buy-side customers, they are often already connected to different CCPs and would not need to go through the connection process in case of an individual and gradual switching strategy. Regarding the time that such connection would take, the buy-side customer Balyasny Asset Management LP mentions that "*A change of this scale would take longer than a few weeks – we would have to prepare for this not only from a trading and execution standpoint, but also operationally and technologically within our infrastructure*".[2778] In turn, the sell-side customer Commerzbank states: "*The infrastructure for new / different CCPs need to be set up at certain cost and including IT-resources for both Front office as well as Back office. This takes 3-6 months, particularly given that the processes are different in every CCP*".[2779]

(b) On the other hand, the time required by the transfer of the risk portfolio are likely to affect dealers in a greater proportion than customers given the large scope of their portfolio (i.e. of the assets that would need to be switched away

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2772 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Société Générale, Doc ID 6472.

2773 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Banco Santander, Doc ID 6472.

2774 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of LLOYDS Banking Group Plc, Doc ID 6472.

2775 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Bluecrest Capital, Doc ID 6472.

2776 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Ilmarinen Mutual Pension Insurance Company, Doc ID 6472.

2777 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Lloyds Banking Group Plc, Doc ID 6472.

2778 Question 24.3.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Bluecrest Capital, Doc ID 6472.

2779 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Commerzbank, Doc ID 6472.

to a new CCP). In this regard, according to the buy-side customer Bluecrest Capital, moving large legacy books between CCPs is "*expensive*". In addition, RBC, a sell-side customer, explains that, such a switching strategy would requires it "*to consider backloading trades to different CCPs which would take time*".[2780] Similarly, Crédit Suisse, as a sell-side customer, explains: "*As a member of every major otc CCP, we would not need to switch CCPs to redirect volume. From a trading perspective, we can redirect activity quickly, but meaningfully transitioning positions would require an extended timeframe*"[2781] and UniCredit, as a sell-side customer, states that, based on its experience, "*The process has required time in order not to have a disruption of the Mktmarket*" [2782]

(2299) Fifthly, the Commission notes that customers insist that such an individual and gradual switching strategy would be difficult, if not improbable. By way of example, Danske Bank A/S, a sell-side customer, explains that switching CCP would involve additional burden, such as changing their clearing broker. It indeed explains: "*Also our current clearing broker is not a member of all CCP's so depending on the choice it may also entail change of clearing broker*".[2783] In the same vein, Ilmarinen Mutual Pension Insurance Company, a buy-side customer, underlines that "*The switch of CCP would cause change for lots of processes*" and it would be a very "*resource demanding process*".[2784] Similarly, Société Générale, as a sell-side customer, insists that switching CCP is a very difficult exercise. It explains that "*We would need to find a willing counterparty (or counterparties) to trade each and every line item such that we could offset and close out all items. In addition we would need to find counterparties with whom to trade sufficient trades to re-establish our open risk positions at another CCP*".[2785] In addition, Société Générale explains during the market investigation that such a switching strategy is particularly risky for customers with large diversified multi-currency portfolio. According to Société Générale, in this case, "*it is much more efficient to clear New Trades in the same portfolio as our existing trades. Not only that but the risk profile of a portfolio of OTC trades changes materially over time even if the trades in that portfolio doesn't change: As such, it will generally be considerably more efficient to manage a single portfolio than to move "new" trades to a different CCP. OTC risk management is complex and requires constant adjustments*".[2786] BBVA, as a sell-side customer, also warns that switching would require for its company that part of the market has already switched and explains: "*Unless both counterparties have access to the competing CCP then, they cannot do this so at least part of the market has to move first"*.[2787]

2780 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of RBC, Doc ID 6472.

2781 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Crédit Suisse, Doc ID 6472.

2782 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of UniCredit, Doc ID 6472.

2783 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Danske Bank A/S, Doc ID 6472.

2784 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Ilmarinen Mutual Pension Insurance Company, Doc ID 6472.

2785 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Société Générale, Doc ID 6472.

2786 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Bluecrest Capital, Doc ID 6472, response of Société Générale.

2787 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Bluecrest Capital, Doc ID 6472, response of BBVA.

Similarly, Unicredit, as a sell-side customer explains that, based on its previous experience "*Market needs to generate enough liquidity to allow the risk transfer*"[2788] linked to an individual and gradual switching strategy.

(2300) Sixthly, it results from the market investigation that such a switching strategy would be very unlikely, for the reasons mentioned above and as follows. First of all, according to some customers, there would not be CCPs in some currencies they trade. For instance, Danske Bank A/S, as a sell-side customer, explains "*there is very limited selection of relevant CCPs as we feel Scandinavian currencies are not cleared actively in all CCPs*."[2789] In addition, some customers consider that the benefits of switching are unlikely to outweigh the associated costs, which makes such a switch very unlikely, unless mandated by the law (as explain in recital (2357) above). According to the buy-side customer Bluecrest Capital: "*Moving large legacy books between CCPs is expensive and time-consuming and it is unlikely to be efficient to straddle new and legacy positions across multiple CCPs*". [2790]

(2301) Against this background, the Commission considers that while the results of the market investigation indicate that some customers from both the buy-side and the sell-side already have a connectivity to different CCPs, this does not alter the fact that, even for these customers, switching away from LCH SwapClear and transitioning their risks to another CCP (including by closing items in one CCP and re-establishing the open risk position in another CCP) is very costly, lengthy, and risky. As explained in recitals (2355) to (2365) above, redirecting volumes to a new CCP require an extended timeframe and is very costly for a number of customers, especially dealers.[2791] Furthermore, the market investigation reveals that a number of EU sell-side customers have technically prepared for a potential switch to Eurex (and obtained a connection to Eurex) in case LCH SwapClear were not granted an equivalence decision following Brexit. In this regard, a few sell-side customers mention that everything is already in place for such an eventuality, such as Landesbank Berlin AG, a buy-side customer, whose "*setup is done already*".[2792] However, the fact that a limited number of customers have started to be ready to switch in case LCH SwapClear were not a recognised CCP after Brexit does not indicate that switching is easy and inexpensive. This only shows that switching becomes a necessity in case of a severe market development, whereby market participants would have no other choice than to switch away from LCH SwapClear. In fact, the feedback collected by market participants show that even in such a severe market development, some market participants would carefully assess whether they would switch. For instance, UBS, as a sell-side customer, explains that whether switches will occur on Eurex for EUR-denominated swaps "*would ultimately depend on much more important structural changes in the market than Eurex's partnership program, in particular: (i) the Brexit negotiations, in particular regarding market access and equivalence principles, and (ii) the costs of clearing wider portfolios in*

2788 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Bluecrest Capital, Doc ID 6472, response of UniCredit.

2789 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Danske Bank, Doc ID 6472, response of Danske Bank A/S.

2790 Question 30.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Danske Bank, Doc ID 6472, response of Bluecrest Capital.

2791 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Crédit Suisse, Doc ID 6472.

2792 Question 24.3, Questionnaire 21 to OTC IRD trading and clearing customers, response of Landesbank Berlin AG, Doc ID 6472.

terms of other currencies and other instruments".[2793] This clearly indicates that switching is difficult, which strongly reduces the competitive constrains faced by the combined entity.

(2302) *Third*, the Commission assessed whether customers can switch their OTC IRD cleared trades based on a one-off transfer of the customers' entire outstanding portfolio. The market investigation reveals that such a switching strategy is considered costly to a degree that it would prove prohibitive for many customers.

(2303) Firstly, the Commission asked to customers how costly it would for them to switch CCP for OTC IRDs with a one-off transfer of their entire outstanding portfolio of cleared trades. The majority of customers (namely 42%) indicate that the cost would be in excess of or equal to EUR 2 million.[2794] In particular, a number of large banks considered that these costs would be above EUR 2 million, in particular Société Générale, Commerzbank, Crédit Suisse, Nomura International, Banco Santander, and BBVA, which together represent a material share of LCH SwapClear's volume.[2795] The Commission also asked customers to rate the extent of the costs associated by a one-off transfer. The market investigation confirms that these costs would be significant or high for 66% of them: a majority of customers (45%) consider these costs to be "*significant*" and 21% consider these costs to be high, but would have to be sustained if the switch became inevitable.[2796] In this regard, a sell-side customer, BBVA, considers that these costs are significant and explains that "[t]*hey are sufficiently high and the process would be so disruptive that we would likely not do the transfer without a regulatory requirement or a wholesale movement of liquidity from one CCP to another*".[2797]

(2304) As regards the Notifying Party's argument that the SO provides no evidence to suggest that a hypothetical one-off switching cost of EUR 2 million would be prohibitive to a critical mass of dealer-banks and buy-side customers, the Commission underlines that the Commission's market investigation focused not only on the estimate of the costs in absolute terms, but also on how customers assess these costs from a more qualitative point of view. Accordingly, as set at the recital above, the results of the investigation indicate(i) that the largest proportion of customers (namely 42%) indicate that the cost would be in excess of or equal to EUR 2 million[2798] and (ii) that these costs would be significant or high for 66% of them: a majority of customers (45%) consider these costs to be "*significant*" and 21% consider these costs to be high, but would have to be sustained if the switch became inevitable.[2799]

(2305) Secondly, the Commission considered the view of rival CCPs regarding the possibility for customers to engage in a one-off switch. On this point, Eurex indicates that such a switching strategy are very rare and very costly. More specifically, Eurex states: "*As such, it is very rare for a major dealer to switch the entirety of their position or, indeed, a "risk carrying" portfolio (i.e. where the dealer bank would incur significant margin at Eurex because their portfolio is "directional"). An*

2793 Minutes of conference call with UBS dated 19 August 2020.
2794 Question 34, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2795 Question 34, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2796 Question 35, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2797 Question 35.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2798 Question 34, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.
2799 Question 35, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

example of such a switch is Deka's transfer of 7,000 EUR-denominated swaps from LCH.SwapClear to Eurex last year. "[2800]

(2306) Thirdly, the Commission assessed the Notifying Party's argument that such a switching strategy is possible, as evidenced by two recent switches operated by DekaBank and [customer]. At the outset, the Commission notes that [customer] did not proceed to a one-off switch of all its outstanding positions to Eurex. Asked in the course of the market investigation to provide information about the size of their OTC IRD switch to Eurex, [customer] explained that this switch "*represented [less than 50%] of our LCH-Portfolio*".[2801] It results clearly from the responses of [customer] that this bank does not have the intention to switch to Eurex in a greater proportion given that Eurex does not offer comparable liquidity for all types of OTC IRD trades. [customer] indeed explains: "*If LCH achieves permanent equivalence, we will continue clearing trades with them, for which EUREX offers no liquid alternative (e.g. some non-EUR currencies)*".[2802] In addition, regarding DekaBank, the market investigation did not shed light on the precise share of DekaBank's portfolio that was transferred. The results of the market investigation explicitly indicate that this switch is not representative because it concerns: (i) the specific situation of one amongst many customers of LCH SwapClear, (ii) and not a top-customer of LCH SwapClear, DekaBank being the 12th largest bank in Germany in terms of total assets according to some public estimates,[2803] (iii) at any rate, DekaBank was, according to Eurex, more of an exception than a common situation "*it is very rare for a major dealer to switch the entirety of their position [...] An example of such a switch is Deka's transfer*".[2804]

(2307) As regards the Notifying Party's argument that the Commission has failed to investigate respondents' actual experience of switching CCP, and that there is no evidence in the SO to suggest that the Commission made any effort to follow up with the market participants that have switched trading venue or CCP in the past, it is partly incorrect. The Commission has sent a dedicated questionnaire to the very few (two of which were identified by the Notifying Party, namely [customer] and DekaBank) market participant having engaged in the past in a CCP switching exercise of some magnitude.[2805] Only one of these two banks ([customer]) responded to the Commission's solicitation.[2806] [customer] explained various specificities to this transfer (namely (i) that it represented less than 50% of its LCH portfolio - contrary to the Notifying Party 's contention that [customer] switched its entire portfolio[2807] - and (ii) that it concerned only a risk-neutral sub-portfolio held by [customer]), which do not apply to all types of switching, all portfolio and all customers. The specificities laid out by [customer] to qualify its transfer would therefore tend to point towards the limitations of the Parties' arguments about the ease of switching CCP. Already, the fact that the Notifying Party was only able to identify two banks who performed a transfer of their clearing portfolio in the course of the past few years (among which none of the major banks, for instance none of LCH SwapClear's OTCDerivNet members) indicate that such switching is rare. This is consistent with

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2800 Eurex's response to the Commission's Phase II questionnaire to clearing competitors, Doc ID 6063.
2801 Question 2.1, Questionnaire sent to [customer] on 11 August 2020, Doc ID 6166.
2802 Question 2.2, Questionnaire sent to [customer] on 11 August 2020, Doc ID 6166.
2803 See https://thebanks.eu/banks/11239 (last accessed on 20 September 2020).
2804 Eurex's response to the Commission's Phase II questionnaire to clearing competitors, Doc ID 6063.
2805 See Doc IDs 5526 and 5527.
2806 See Doc ID 6166
2807 Form CO, paragraph C.V. 234

the submission of Eurex: "*As such, it is very rare for a major dealer to switch the entirety of their position or, indeed, a "risk carrying" portfolio (i.e. where the dealer bank would incur significant margin at Eurex because their portfolio is "directional"). An example of such a switch is Deka's transfer of 7,000 EUR-denominated swaps from LCH.SwapClear to Eurex last year.*"[2808]

(2308) *Fourth,* the Commission analysed LSEG's internal documents to assess LSEG's internal views regarding CCP switching. Internal documents of LSEG evidence that LSEG and LCH SwapClear's top management share the view that CCP switching is a process that is possible in theory but far more difficult to implement in practice than what the Notifying Party claims. Asked by LSEG's [LSEG senior employee] about the possibilities offered by the switching services provided by [switching service provider], [LCH senior employee] replies: [analysis of switching services][2809] (emphasis added). These elements, shared among top LSEG officials, are alone sufficient to provide an idea of the hurdles and costs associated with switching CCP.

(2309) *Fifth,* the Commission notes that the additional arguments put forward by the Notifying Party in its response to the decision pursuant to Article 6(1)(c), claiming the ease for customers to switch to Eurex, rely heavily on material from Eurex's Risk.net webinar, '*CCP Switching: how and why?*', dated 4 June 2020 should be taken with caution given the promotional nature of this webinar.

(2310) *Sixth,* the Commission considered whether the 'CCP switching services providers' allow market participants to switch CCP more easily and more quickly, as claimed by the Notifying Party. The results of the market investigation did not confirm this claim. On the contrary, the feedback received points towards the limited impact of these switching services. This is evidenced by the fact that the vast majority of clearing customers (74%) have never used such switching services (and only 13% of them did use such service).[2810] While the Commission received some positive feedback from clearing customers who have used these services in the past, these customers also insist on the limits of these switching services. For instance, BNP Paribas, a sell-side customer, describes the Capitalab's service as "*satisfying*" but notes that the volume was capped to 1bn notional and that the service was "*not very liquid*".[2811] Société Générale, a sell-side customer, also highlights that the switching services they work with "*of course are limited by the risk exposures that the participants wish to manage*".[2812] Similarly, feedback from Commerzbank AG, a sell-side customer, evidences that switching with these services remain burdensome. Commerzbank indeed explains that it "*acted as the counterparty to another counterparty to transfer their portfolio from LCH to Eurex. Several thousand trades were included in this transfer, which took place on one single day. The preparation for this however took up to 6 weeks, including legal and pricing negotiations as well as technical preparations on both sides.*"[2813]

(2311) *Seventh*, the Commission compared the burden associated with switching CCP with the burden associated with trading venues. In this regard, the market investigation unambiguously indicated that switching trading venue can be done instantaneously,

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2808 Eurex's response to the Commission's Phase II questionnaire to clearing competitors, Doc ID 6063.

2809 M.9564_RFI23-007 / VOL01 / NATIVES / Davie, Michael, ID4695-57828

2810 Question 42, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2811 Question 42.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2812 Question 42.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2813 Question 42.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Commerzbank AG, Doc ID 6472.

at zero or negligible costs. *First*, a majority of customers consider that the costs to switch most or all of their OTC IRD trading to another electronic trading venue would be very small,[2814] and these customers comment, with respect to such costs, that they would consider them to be: "*negligeable",[2815] "minimal",[2816] "cost is not expected to be significant.",[2817] "There wouldn't be any one-off costs to switch from one to another existing OTC IRD trading venue.",[2818] "no additional cost",[2819] "keine Angaben",[2820] "negligible",[2821] "Zero - we think it would be easy to move from Tradeweb to Bloombery* (sic) *if required".[2822] Second*, as recognised by the Notifying Party[2823] and confirmed by customers,[2824] customers are generally connected to both Tradeweb and Bloomberg, which facilitates a switch from Bloomberg to Tradeweb, for instance. *Third*, the Commission asked customers whether they think that it is easier to switch CCP or trading venue and the results of the market investigation unequivocally indicates that customers could easily switch trading venue, but not CCP. Indeed, 65% of buy-side customers and 57% of sell-side customers think that it is easier to switch trading venue than to switch CCP, while by contrast only 3% of buy-side customers and 5% of sell-side customers (only one customer in each case) think that it is easier to switch CCP than to switch trading venue.[2825] This was confirmed by the very high switching rates upstream that the market investigation revealed (ranging from 59% to 80%, depending on the scenario considered).[2826] Against this background, the market investigation confirms that, in case the combined entity engaged in any of the Customer foreclosure strategies, customers would rather switch trading venues than CCPs.

(2312) *Finally*, the Commission notes that the internal document quoted by the Notifying Party to illustrate more generally the "*increasingly more competitive*" nature of the downstream market does not relate to CCP clearing services for OTC IRDs. The slide quoted by the Notifying Party describes the competitive landscape for clearing services in general, for all financial instruments.[2827]

2814 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2815 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Carmignac Gestion, Doc ID 6472.

2816 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Citadel Group, Doc ID 6472.

2817 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Danske Bank A/S, Doc ID 6472.

2818 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Ilmarinen Mutual Pension Insurance Company, Doc ID 6472.

2819 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Landesbank Berlin AG, Doc ID 6472.

2820 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Landesbank Hessen-Thüringen, Doc ID 6472.

2821 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Mavors Investment Management, Doc ID 6472.

2822 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers, response of Schroders Plc, Doc ID 6472.

2823 Response to the decision pursuant to Article 6(1)(c), paragraph 174.

2824 Question 7, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472. 91% of customers, and all sell-side customers except one, indicate that their company is a customer of Tradeweb's OTC IRD trading venue it uses Bloomberg terminals.

2825 Question 24, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 22, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

2826 Questions 25 to 29, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2827 The internal document is quoted in Form CO, paragraph C.V.193.

(2313) To conclude, the Commission considers that LCH SwapClear's dominant position is not constrained by the possibility of customer to switching easily. In turn, LCH SwapClear's dominance is strengthened by the difficulty of many customers to switch. In addition, the fact that customers could easily switch trading venue, but not CCP confirms that the combined entity have the ability to engage in the Customer foreclosure strategies.

B.1.1.7. LCH SwapClear's dominance is not significantly constrained by customers' countervailing buyer power

(2314) First, the Commission recalls that the majority of sell-side and buy-side customers think that they have no buyer power vis-à-vis the Parties. In the downstream clearing market, 79% of buy-side customers[2828] and 94% of sell-side customers[2829] say that they do not have any ability to negotiate terms or prices vis-à-vis LCH SwapClear. However, dealers seem to have some buyer power based on their ability to steer D2C trade flow at least to some extent.

(2315) As regards the fact that, as acknowledged in the SO,[2830] the market investigation pointed towards the notion that clearing customers, or at least LCH SwapClear's top customers, enjoy some degree of countervailing buying power. In particular, a short majority of both sell-side and buy-side customers (52%) agree that LCH faces meaningful competition from other OTC IRD CCPs[2831] and 62% of them consider that their ability to switch CCP constrains LCH SwapClears's pricing,[2832] the Commission notes nonetheless that comments from market participants, consistent with customer's view on the importance of clearing multiple currencies at the same CCP (see Section 4.5.36.1.B.1.1.3. above), suggest that this constrain on LCH is only exerted on a currency per currency basis,[2833] and not as a whole. For instance, BNP Paribas, a sell-side customer, considers that "*In EU, Eurex provides meaningful competition clearing OTC IRD. In the US, CME provides meaningful competition*"[2834] Similarly, Société Générale, a sell-side customer as well, explains that from their perspective, "*It depends on the market segment. Certain core European firms and agencies have a strongly expressed preference for Eurex, as do those firms who value the ability to net exposures between bond futures and their IRS. Also LCH has faced material competition in USD IRS from particularly those with a North American focus and those with significant offsetting US futures and swaps positions.*"[2835] Other comments suggest that with respect to several important currencies (JPY, USD, EUR), this competitive pressure stems from regulatory provisions or the incertitude created by certain political developments such as Brexit. For instance, the BBVA Group, a sell-side customer, submits that "*To the best of our knowledge, in certain currencies it does face competition. For instance, in USD we believe there would be competition from the CME, in Yen from Tokyo and to an*

2828 Question 26, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

2829 Question 27, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

2830 SO, paragraph (1145)

2831 Question 24.2, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2832 Question 41, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2833 Namely by Eurex for EUR, CME for USD, JSCC for JPY, as well as BME for some LATAM currencies. See e.g. Question 21.1, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2834 Question 24.2.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of BNP Paribas, Doc ID 6472.

2835 Question 24.2.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Société Générale, Doc ID 6472.

extent in Euro from Eurex. However, from an overall liquidity perspective, to the best of our knowledge, there is no meaningful competition as yet and in the currencies above it is only as a result of regulatory issues (we understand that in the US some entities may not clear outside the US, in Japan there is a domestic clearing mandate and in Europe the issue of brexit). Even in those cases the competition would be limited for broad users of the market as there are cost benefits to centralising in one CCP and there is the potential for valuation mismatches."[2836] It still remains that a significant proportion of customers (33%) nonetheless disagrees that LCH faces meaningful competition from other OTC IRD CCPs.[2837] As an example, Balyasny Asset Management LP, a buy-side customer, explains that "*On the whole, I disagree that LCH faces meaningful competition from other CCPs at the present time; the only exception to this would be CME, which still holds the greater liquidity for LATAM currencies.*"[2838] Moreover, this comment from Balyasny Asset Management LP clearly shows that it disagrees with the statement that LCH faces meaningful competition from other OTC IRD CCPs, it answered "*Other*" instead of "*No*" to the question on whether LCH faces meaningful competition from other OTC IRD CCPs.[2839] Similarly, Unicredit answered "*Yes*" to the question,[2840] suggesting that it agrees that LCH faces meaningful competition from other OTC IRD CCPs, but clearly does not appear to consider this as a sufficiently reassuring factor all things considered, since Unicredit voiced concerns with respect to the Transaction in the following terms: "*We believe Refinitiv still holds a controlling stake in Tradeweb. The proposed transaction will bring Tradeweb and LCH (the dominant CCP for IRD) together under LSEG. The Commission should consider that Tradeweb may favour LCH over other competing CCPs*".[2841]

(2316) Therefore, as such, the Commission acknowledges, as it did in its SO, the facts that a short majority of both sell-side and buy-side customers (52%) agree that LCH faces meaningful competition from other OTC IRD CCPs[2842] and that 62% of them consider that their ability to switch CCP constrains LCH SwapClear's pricing,[2843] and took these elements into account in the body of its assessment of LCH SwapClear's position at downstream level, but finds that these two elements are not sufficient to establish that LCH SwapClear is not dominant downstream, or that it would not have the ability to engage in a potential customer foreclosure strategy.

(2317) As regards the Notifying Party's argument that none of the SwapClear Banks that were surveyed agreed with the Commission's hypothesis that they somehow lacked negotiating power, as an element of context, the question was: "*If you are one of the "SwapClear banks", please substantiate why you consider not to have sufficient negotiating power via OTCDerivNet or individually vis-à-vis LCH SwapClear based*

2836 Question 24.2.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of the BBVA group, Doc ID 6472.

2837 Question 24.2, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2838 Question 24.2.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Balyasny Asset Management LP, Doc ID 6472.

2839 Question 24.2, Questionnaire 21 to OTC IRD trading and clearing customers, response of Balyasny Asset Management LP, Doc ID 6472.

2840 Question 24.2, Questionnaire 21 to OTC IRD trading and clearing customers, response of Unicredit, Doc ID 6472.

2841 Question 49, Questionnaire 21 to OTC IRD trading and clearing customers, response of Unicredit, Doc ID 6472

2842 Question 24.2, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2843 Question 41, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

on the existing agreement";[2844] and its purpose was to test LSEG's argument that the 14 SwapClear have strong negotiating power, individually and within OTCDerivNet. However, the results of the market investigation regarding this question was not conclusive as only 3 OTCDerivNet members (BNP, Citi and Nomura), out of 14 (*i.e.* 21%) provided a non-confidential answer. As such, the overall picture that emerges from the responses to this question is not representative, nor does this overall picture have a strong probative value for the purpose of the Commission's investigation. In addition, the Commission notes that two thirds (6 of 9) of the SwapClear banks that responded to this question asserted confidentiality over the entirety of their reply, which shows the sensitivity of this question. The Commission acknowledges that Nomura's feedback was overall positive about its negotiation power both individually and via OTCDerivNet. The Commission notes however that this does not prevent Nomura to expect an overall negative impact of the Transaction with respect to OTC IRDs (for instance through higher prices; lower-quality products or reduced innovation).[2845] The Commission notes as well that the only two other non-confidential responses (by BNP: "*The role of OTCDerivNet is limited to an advisory capacity with regards to LCH OTC Interest Rates services. In terms of negotiating power, the Clearing Houses can choose to engage with their members when launching new products and initiatives.*"[2846] and Citi: "*The purpose of Citi's involvement in this regard is not to drive down prices or get better terms for Citi, but rather to ensure prudent risk management and efficient working of the CCP. The individuals involved in OTC DerivNet for Citi will be nominated as directors of OTCDerivNet in accordance with their internal governance.*"[2847]) suggest that, contrary to the Notifying Party's argument, SwapClear banks do not enjoy, through OTC DerivNet "*practical and legal mechanism to put collective, as well as individual, pressure on LCH up to and including the ability to switch 'en masse'*",[2848] which was the argument being tested by the Commission through this question. On the contrary, consistent with OTCDerivNet's own statement, the two responses from BNP and Citi evidence that OTCDerivNet serves a purpose, which is entirely different from allowing its members to collectively benefit from an increased bargaining power vis-à-vis LCH SwapClear.

(2318) Most importantly, as already mentioned above in Section 4.5.36.1.B.1.1.6., in the context of the competitive assessment of a potential vertical theory of harm, and more specifically of a customer foreclosure strategy, the relevant criteria to be taken into account would not be whether the downstream entity is facing meaningful competition or whether its customers have the ability to switch at downstream level, but rather whether the customers are more likely to switch at downstream level than upstream in case of a potential foreclosure scenario, and whether the balance between the revenue losses downstream due to customer switching away to downstream competitors and revenue gains upstream thanks to new customers joining at upstream level is such that the combined entity would have the incentive to put in place such a foreclosure strategy. These elements are treated below in Section 4.5.36.1.B.2 Nonetheless, it can already be mentioned that, despite the above-

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2844 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2845 Question 46, Questionnaire 3, to OTC IRD sell-side customers, response of Nomura, Doc ID 6474.

2846 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, response of BNP, Doc ID 6472.

2847 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, response of Citi, Doc ID 6472.

2848 Response to the decision pursuant to Article 6(1)(c), paragraph 83.

mentioned elements pointing towards the notion that LCH SwapClear's top customers might enjoy some degree of countervailing buying power and ability to switch, the results of the market investigation very clearly evidenced that in the event the combined entity were to put in place a potential customer foreclosure strategy, the vast majority of customers (in proportions ranging from 59% to 80% depending on the scenario considered[2849]) would rather switch trading venue in order to remain with their preferred CCP.

(2319) The Commission also observes that the Notifying Party's argument that the concentrated nature of LCH SwapClear's customer base further amplifies the risk of customer retaliation, because the switching of only a limited number of customers could drastically reduce the volumes cleared at LCH SwapClear (for instance only [a small percentage] of SwapClear's buy-side clients could move nearly [a very high percentage] of SwapClear's buy-side volumes to a rival CCP) can be reversed, in the sense that even if [a very high percentage] of SwapClear's (smallest) clients moved their clearing volumes away to a rival CCP, SwapClear would still retain [a very high percentage] of its volume, so that SwapClear would only have to concentrate its efforts to retain customers and make them more sticky (through incentive schemes for instance) on a limited number of customers (its top [a small percentage] customers) in order to preserve the vast majority ([a very high percentage]) of its business. In a sense, this is already what LCH SwapClear does through its revenue sharing agreement with OTCDerivNet members.

(2320) With respect to the Notifying Party's argument that SwapClear's current market power as well as the network effects it benefits from are already factored into SwapClear's pricing policy pre-Transaction in such a way that any further price increase would lead customer to switch to an extent that the increased price paid by remaining customers would not be sufficient to offset the losses of revenues from those who switched away from SwapClear, the Commission observes that the whole rationale of a potential customer foreclosure theory of harm such as the one discussed in this section is that the structural change in the market created by a vertical integration shifts the combined entity's incentive to maintain a given pricing level at downstream level, because, in the case at hand, any potential loss SwapClear makes downstream while increasing its tariffs, due to clearing customers switching away would be more than recouped upstream, at trading level, by attracting more trading customers on Tradeweb. These elements will be discussed further in Section 4.5.36.1.B.2 below.

(2321) In addition, the Commission considers that OTCDerivNet cannot be considered as an instrument providing the fourteen members of the SwapClear agreement a supplementary countervailing power vis-à-vis LCH SwapClear: The Notifying Party's argument that OTCDerivNet provides a framework that gives the fourteen members of the SwapClear agreement a supplementary countervailing power vis-à-vis SwapClear was strongly contradicted by the Commission's market investigation. As a matter of fact, only one SwapClear agreement member (Nomura International Plc) appears to consider that go in the Notifying Party's direction, mentioning "*We do have a good working relationship with LCH and believe there is sufficient negotiation power both individually and via OTCDerivNet.*"[2850] All other members either refrain from publicly commenting on the question, or consider that

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2849 Questions 25 to 29, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2850 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, response of Nomura International Plc, Doc ID 6472.

OTCDerivNet is not the proper vehicle for a SwapClear agreement member to exert its putative buying power vis-à-vis SwapClear.[2851] BNP Paribas Group mentions for example that "*The role of OTCDerivNet is limited to an advisory capacity with regards to LCH OTC Interest Rates services.* […]"[2852] Similarly, Citibank / Citigroup explains that : "*The purpose of Citi's involvement in this regard is not to drive down prices or get better terms for Citi, but rather to ensure prudent risk management and efficient working of the CCP.* […]"[2853]

(2322) Most importantly; OTCDerivNet itself denies it could assume the role of an advocate of the common interests of the SwapClear banks in the context of a commercial negotiation, let alone helping its members to switch their volumes in a coordinated way from SwapClear to another CCP, as suggested by the Notifying Party. On the contrary, OTCDerivNet states that "*Whilst OTCDN* […], *it does not consider that its relationship with LCH is one which gives it any material bargaining power towards LCH itself or SwapClear concerning the use of SwapClear by the member banks (i.e. the OTCD Shareholding Banks).* […] *OTCDN has no role in negotiating with LCH concerning the use of SwapClear (or any other business) by the OTCD Shareholding Banks.*"[2854] With respect to the Notifying Party's argument with respect to SwapClear banks that *"their organisation within OTCDerivNet means that they have a further practical and legal mechanism to put collective, as well as individual, pressure on LCH up to and including the ability to switch '*en masse*'."*[2855], OTCDerivNet strongly rejects this perspective, further explaining that "*The question of use of a clearing service is a matter decided upon solely by the SwapClear banks individually in their capacity as users of clearing services. OTCDN has no role to play in determining whether or where bank users may choose to clear, whether with LCH or at another clearing house. Consequently, OTCDN would not be able to help its Board "members" (which we take to mean the OTCD Shareholding Banks) to switch their clearing volumes from SwapClear to another CCP.*"[2856]

(2323) The fact that LCH did not increase (or even inflation adjust) SwapClear membership fees for any membership plan between 2013 and 2018 and has not made any significant changes to buy-side clearing fees since 2014 would not in itself be sufficiently demonstrative of an increased degree of competition in the market, let alone a sufficient degree of competition in OTC IRD clearing. It might very well be indeed that LCH SwapClear's membership fees were already in 2013 at the highest level that could be sustainably set by LCH SwapClear (i.e. at a monopoly pricing level), and that absent any competition, these fees would have been maintained at this level anyway; while increased competition would have on the contrary resulted in a substantial decrease of these fees. Irrespective of this, the Parties' internal documents provided strong evidence that the latest round of negotiations between LCH SwapClear and OTCDerivNet which took place for its greatest part from [date] to [date] [analysis of commercial negotiation] that eventually turned out to be [analysis of commercial negotiation].

2851 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2852 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, response of BNP Paribas, Doc ID 6472.

2853 Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, response of Citibank / Citigroup, Doc ID 6472.

2854 Questionnaire to OTCDerivNet, Doc ID 5988.

2855 Response to the decision pursuant to Article 6(1)(c), paragraph 83.

2856 Questionnaire to OTCDerivNet, Doc ID 5988.

(2324) With respect to the first point, while the Notifying Party submits that the SwapClear agreement was [analysis of commercial negotiation][2857] and that the SwapClear banks [analysis of commercial negotiation] and [analysis of commercial negotiation],[2858] the contents of [analysis of commercial negotiation].[2859] [Analysis of commercial negotiation][2860] [Analysis of commercial negotiation].[2861]

(2325) As regards the second point, the Commission notes that contrary to what the Notifying Party states, [analysis of commercial negotiation].[2862] More importantly, the Notifying Party's presentation of these negotiations crucially fail to reflect the fact that [analysis of commercial negotiation]. These elements are reflected in [reference to internal document]. The Commission also notes that [reference to internal document].

Figure 34

[internal document]

Source: [internal document]

(2326) In addition, not only the Notifying Party's way of presenting these negotiations completely overlooks their true rationale [analysis of commercial negotiation], but it also fails to reflect [analysis of commercial negotiation]

Figure 35

[summary of internal document]

Source: [summary of internal document]

Figure 36

[internal document]

Source: [internal document]

(2327) As regard the third point, the Commission observes that in the last item ([…]) of Figure 34 LCH SwapClear estimates that these negotiations will result for 2019 in [analysis of commercial negotiation], and, most importantly, that LCH will incur [analysis of commercial negotiation]. This clearly evidences [analysis of commercial negotiation] had in engaging in these negotiations, and dispels any conception that LCH SwapClear [analysis of commercial negotiation]. This is further evidenced by the fact that LCH SwapClear's slide deck for presenting project Ruby to OTCDerivNet members for the first time on [date] described the scope for the [date] review as threefold: (i) […], (ii) […] and (iii) […].[2863] In an email reporting an oral conversation ([…][2864]) […].[2865] This clearly evidences that the primary focus of the Ruby project was […], and that the fee cap was [analysis of commercial negotiation].

2857 Response to the decision pursuant to Article 6(1)(c), paragraph 81.

2858 Response to the decision pursuant to Article 6(1)(c), paragraph 82.

2859 ID4695-23932

2860 ID4698-42895

2861 ID4698-6889

2862 [Reference to internal document]. The outcome of the negotiations indeed resulted in an increase of the Platinum membership fee from GBP 2.5 million to GBP 2.8 million, as was at any rate publicly advertised on LCH's website – see https://www.lch.com/membership/ltd-membership/ltd-member-updates/non-deliverable-interest-rate-swaps-membership-and-0

2863 Slide 3 of [internal document].

2864 ID5727-8236

2865 [internal document].

(2328) As a result, the Commission considers that the episode of the latest negotiation of the SwapClear agreement [date] cannot be considered as a convincing evidence of OTCDerivNet's bargaining power vis-à-vis LCH SwapClear.

B.1.1.8. LCH SwapClear's historical commitment to an open access model cannot in itself be taken as a guarantee for its future behaviour

(2329) With respect to the Notifying Party's argument that LCH SwapClear's commitment to its open access model would prevent the combined entity from engaging in any form of customer foreclosure strategy, the Commission acknowledges that the Notifying Party's internal documents contain multiple references to LCH SwapClear's open access model. LCH SwapClear's employees and top-management appear to be genuinely committed to this open-access model, and often reiterate their belief in it, both internally and externally.

(2330) However, it should be noted that in several instances, LCH's open-access model was questioned, overlooked or held back in the context of business discussions. For instance, in a document aimed at grouping feedback from LCH board members on strategy LCH's strategy, [LCH non-executive director], non-executive director of the board asks: [commercial strategy].[2866] In relation with […], [LCH senior employee], reports on a discussion with [customer] in the following terms: [commercial strategy].[2867] In the context of cash equities, [LCH senior employee], shares its thoughts with members of his teams as follows: [market analysis].[2868] LSEG's CEO, David Schwimmer, appears to be faced with the same dilemma between [commercial strategy]. [2869] Similarly, in the context of an upcoming discussion [commercial strategy], [LCH senior employee] warns [LCH senior employee] in the following terms: […].[2870] Additionally in the context of FX products (which is still relevant for the sake of this argument, given that the Notifying Party argues that open-access model is a feature characterising the entirety of LCH's corporate behaviour and governance), in a presentation entitled […] by [LCH employee], the following considerations are put in writing: [commercial strategy].[2871] [Commercial strategy].

(2331) Moreover, the Commission observes that having an open-access policy has not in the past prevented LCH SwapClear from considering the possibility to treat trading venues on different grounds. In a document related to the MIFID-II regulation implementation, one of the actions identified as being needed on LCH SwapClear's side is labelled as follows […].[2872] The Commission notes to this respect that Tradeweb becoming part of the LSEG group is likely to enable workflow and IT integration features between Tradeweb and LCH SwapClear to a degree that would provide objective grounds for justification that connexion with Tradeweb is less costly from LCH SwapClear's perspective and thus Tradeweb gets treated differently from its rivals.

(2332) Finally, the Commission's decision cannot rely exclusively on an internal company policy, however long-dated and consistently endorsed it may have been. This is especially the case given the consequent shift in incentives that the structural change

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2866 ID4698-66609
2867 ID4695-819
2868 ID4698-88605
2869 ID4257-36327
2870 ID4698-7195
2871 ID4697-45775
2872 ID6236-329

created by a vertical integration upstream might create. This is confirmed by the fact that, in some instances, LCH SwapClear appears to be implying the existence of a causal link between its open access model and the fact that LCH SwapClear is not vertically integrated with any trading venue, such as is the case in the following considerations: [commercial strategy].[2873] In this document, […] the fact that LCH SwapClear is not vertically integrated with any trading venue is presented as a guarantee of SwapClear's agnosticism with respect to the trading venue where trades are executed. [commercial strategy] even appears to suggest that having an open-access model is more or less a synonym for not being vertically integrated. Moreover, the mere mention that [commercial strategy] would suggest that there are such things as a non-horizontal clearing house, and that vertical integration with a privileged trading venue is not an unnatural feature of the market, but merely a different business model existing in parallel to LCH SwapClear's. This inevitably raises the question of what might happen once LCH SwapClear is no longer a [commercial strategy].

(2333) With respect to the Notifying Party's argument that LCH is already as of today part of a group engaged in upstream trading activities and yet apparently has no records of privileging these upstream trading venues over their rivals, while the Commission acknowledges that the Parties' past behaviour and positive track record with regards to its commitment to an open-access model in clearing should be taken into account in the Commission's assessment, this element alone should not constitute the cornerstone of the Commission's assessment. In particular, the specificities of the structural change created by the introduction of a new vertical link should be carefully assessed, and in situations where it can be found that the combined entity would have both the ability and incentive to engage in such a strategy, and that such a foreclosure strategy might have an overall likely impact on effective competition, these elements should be carefully weighed against the historical behaviour of the Parties in similar, albeit never exactly identical, contexts.

(2334) With respect to the Notifying Party's argument that LCH SwapClear's governance model would prevent the combined entity from refusing to clear trades from rival trading venues, the Commission notes that this argument was already presented by LSEG in *Deutsche Börse/LSEG* and dismissed by the Commission.[2874] As the Notifying Party notes that *"there have been no substantial changes to any aspects of LCH's governance model since the DBAG/LSEG decision"*,[2875] the Commission considers that the conclusion drawn in the *Deutsche Börse/London Stock Exchange Group* decision remains valid.

(2335) As regards the Notifying Party's argument that the Commission could not find any LCH SwapClear internal document contemplating or assessing the profitability of such customer foreclosure strategies, the Commission considers that it has nonetheless found several instances where some (independent) board members or members of LCH's top management do not hesitate to discuss openly about LCH's open access model, including about profitability considerations that are linked to LCH's commitment to its open-access model. For the period before the Transaction was announced or even considered, it is not surprising to the Commission that no internal documents contemplate the commercial benefits of potential foreclosure

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2873 ID4695-64076

2874 Commission decision of 29 March 2017 in Case M.7995 - Deutsche Börse/London Stock Exchange Group, paragraphs 864-872.

2875 Form CO, Interest-rate derivatives chapter, footnote 86.

strategy in relation to OTC IRDs (because LSEG was not vertically integrated and didn't envisage that it could be at that time) or other financial instruments (because in no other financial instrument with strong clearing obligations or where a very important proportion of trades are cleared is LCH vertically integrated with such a combination of very high market share downstream and very significant market share upstream).

B.1.2. Refusal to clear would be possible legally and in practice post-Transaction for LCH SwapClear

(2336) The Commission considers that the combined entity will have the ability post-Transaction to engage in a total foreclosure strategy whereby it would refuse to clear trades that are not executed through Tradeweb given that, not only LCH has the market power necessary to engage in such a foreclosure strategy (as explained in Section 4.5.36.1.B.1.1. above), but it is also possible legally and in practice for LCH SwapClear to engage in such a strategy (as explained in the following section).

B.1.2.1. Refusal to clear would be possible legally

(2337) The Commission assessed whether the combined entity would be legally prevented, post-Transaction, from refusing to clear OTC IRD trades that are not executed through Tradeweb's electronic venues. The Commission's in-depth investigation evidences that LCH SwapClear would not be legally prevented from engaging in such total foreclosure strategy after the end of the Brexit's transitional period (which is expect to end on 31 December 2020).

(2338) As a first step, the Commission analysed the EU legal framework applicable to the clearing of OTC IRDs, and recognises that this framework provides safeguards against a refusal to clear OTC IRDs. This legal framework is essentially embodied in EMIR, the EU regulation adopted in 2012 that "*lays down clearing and bilateral risk-management requirements for over-the-counter ('OTC') derivative contracts, reporting requirements for derivative contracts and uniform requirements for the performance of activities of central counterparties ('CCPs') and trade repositories*"[2876] and "*shall apply to CCPs and their clearing members, to financial counterparties and to trade repositories*".[2877] In particular, Article 7 EMIR requires CCPs to provide their clearing services to trading venues on an open access basis. Article 7 EMIR indeed provides that "*A CCP that has been authorised to clear OTC derivative contracts shall accept clearing such contracts on a non-discriminatory and transparent basis, regardless of the trading venue*".

(2339) As a second step, the Commission assessed whether Article 7 EMIR would still apply to LCH SwapClear after the end of the Brexit's transitional period (that is expected to last until 31 December 2020). The in-depth investigation reveals that that the applicability to UK-based CCPs of EMIR's provision regarding the access to CCPs will change when the Brexit transitional period ends. This is recognized by the Notifying Party which states in RFI 36 reply, that "*Article 7 EMIR will no longer apply as of 1 January 2021 as the governing provision in relation to LCH Ltd's activities conducted in the EU*".[2878]

(2340) When the Brexit transitional period ends (expectedly on 31 December 2020), Article 7 EMIR will no longer apply to LCH SwapClear because, as a UK-based CCP, LCH

2876 Article 1, paragraph 1 of EMIR.

2877 Article 1, paragraph 2 of EMIR.

2878 RFI 36 reply, paragraph 2.

SwapClear (i) will cease to be bound by the provisions of Article 7 EMIR and (ii) will not need to comply the provisions (or equivalent provisions) of Article 7 EMIR to obtain and retain an equivalence decision, authorising LCH SwapClear to clear OTC IRD trades subject to the clearing obligation.[2879]

(a) Regarding the former, LCH SwapClear will cease to be bound by the provisions of Article 7 EMIR because Article 7 EMIR binds CCPs that have been "authorized" to clear OTC derivative contracts, not CCPs that were "*recognized*" in the European Union to clear OTC derivate contracts.

(b) Regarding the latter, LCH SwapClear will not need to comply with the provisions (or with equivalent provisions) of Article 7 EMIR to obtain and retain an equivalence because, based on paragraph 6 of Article 25 EMIR, any recognition granted to CCPs based in a third country by way of an equivalence decision shall determine "*that the legal and supervisory arrangements of a third country ensure that CCPs authorised in that third country comply with legally binding requirements which are equivalent to the requirements laid down in Title IV of this Regulation*", and Article 7 EMIR is not part of Title IV of EMIR. As such, (i) LCH SwapClear could receive an equivalence decision even if the UK regulatory regime does not impose an open access obligation to LCH SwapClear and (ii) after 1 January 2021, ESMA will not have any empowerment measures allowing it to enforce the compliance of Article 7 EMIR by LCH SwapClear.

(2341) As a third step, the Commission assessed whether other Articles contained in EMIR would impose open access to LCH SwapClear post-Brexit. In this regard, the in-depth investigation reveals that other provisions of EMIR would not impose open access on LCH SwapClear after the end of the Brexit's transitional period, including Articles 36, 37, and the first paragraph of Article 38. These provisions do not impose open access requirements on CCPs, regardless of whether they are authorised CCPs or recognised CCPs. These provisions indeed govern the relationship between clearing houses and their members and clients – they do not govern the relationship between clearing houses and trading venues. In addition, the remainder of Article 38 EMIR is intertwined with Article 7 EMIR (which will not be applicable to LCH SwapClear once Brexit is effective) as it requires CCPs to publicly disclose the operational and technical requirements relating to the communication protocols covering content and message formats it uses to interact with third parties, including the operational and technical requirements referred to in Article 7 EMIR. The remainder of Article 38 thus does not impose open access obligations on CCPs either.

(2342) As a subsidiary element, the Commission notes that, even if the foreclosure strategies described in this Section could be interpreted as prohibited by Articles 36-38 EMIR, *quod non*, the intervention of the regulator could be lengthy. In case ESMA were to pursue an infringement procedure under Articles 35-38 EMIR, such procedure could take up to two years. This is in particular because any infringement procedure with a recognised CCP would require cooperation with the relevant third country's financial authority. In addition, in case an infringement procedure were to be initiated with

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2879 The Commission notes that as of 21 September 2020, the Commission has adopted a time-limited decision granting temporary equivalence and recognition for CCPs based in the UK, allowing them to continue to provide clearing services in the EU for a period of 18 months after the end of the Brexit transition period.

respect to Articles 36, 37 or 38 EMIR, the sanctions would have to be adequate and proportionate in light of the nature of the provisions (which do not explicitly prohibit specific types of behaviour). The withdrawal of the equivalence decision would appear excessive in that context. ESMA could nevertheless impose a fine, in agreement with the relevant third country's financial authority. In this regard, the Commission notes that ESMA is still in the course of building its enforcement toolkit (including in terms of fines and other retaliation means) in order to address breaches of EMIR.

(2343) As a fourth step, the Commission assessed whether, as claimed by the Notifying Party, LCH SwapClear will be bound by open access requirements under MIFIR. MIFIR is the European regulation on markets in financial instruments. According to the Notifying Party, "*LCH Ltd is in the process of applying for recognition under EMIR. As a recognised CCP LCH Ltd will remain subject to Article 35 MiFIR which applies to authorised and recognised CCPs and will require LCH Ltd to clear all financial instruments, including OTC IRDs, traded on EU trading venues on a non-discriminatory and transparent basis (i.e. the same requirement as Article 7 EMIR).*"[2880] However, the Commission's in-depth investigation reveals that MIFIR does not impose open access to LCH SwapClear with regard to OTC IRDs. This is because such MIFIR provisions do not apply to the clearing services of OTC derivatives. With regard to derivatives, MIFIR provisions on open access between CCPs and trading venues are only applicable to exchange-traded derivatives. The rules on open access between CCPs and trading venues for OTC IRDs are (exclusively) governed by a specific and different regulation, which is EMIR.

(2344) The fact that OTC derivatives, (the category to which OTC IRDs belong), are subject to EMIR rules, not MIFIR rules, is clearly explained in MIFIR. Indeed, recital 39 MIFIR clearly explain that EMIR (i.e. regulation (EU) No 648/2012) *"lays down the conditions under which non-discriminatory access between CCPs and trading venues should be granted for OTC derivatives. Regulation (EU) No 648/2012 defines OTC derivatives as derivatives whose execution does not take place on a regulated market or on a third-country market considered as equivalent to a regulated market in accordance with Article 19(6) of Directive 2004/39/EC. In order to avoid any gaps or overlaps and to ensure consistency between Regulation (EU) No 648/2012 and this Regulation, the requirements set out in this Regulation on non-discriminatory access between CCPs and trading venues apply to derivatives traded on regulated markets or on a third-country market considered as equivalent to a regulated market in accordance with Directive 2014/65/EU and all non-derivative financial instruments"* (emphasis added).[2881] In addition, Article 35 EMIR unequivocally indicates that this provision is not applicable for the access of clearing services of OTC IRDs, contrary to the Notifying Party' view. Indeed, the first sentence of

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2880 RFI 36 reply, paragraphs 2, 3, and 6.

2881 In addition, for completeness, recital 37 of MIFIR recalls the rules applicable to over-the-counter derivatives, category to which OTC IRDs belong, are already governed by EMIR ("*Regulation (EU) No 648/2012 lays down the criteria according to which classes of OTC derivatives should be subject to the clearing obligation. It prevents competitive distortions by requiring non-discriminatory access to CCPs offering clearing of OTC derivatives to trading venues and non-discriminatory access to the trade feeds of trading venues to CCPs offering clearing of OTC derivatives*") and notes that MIFIR applies to the category of IRDs that are not over-the-counter, namely exchange-traded derivatives ("*As OTC derivatives are defined as derivative contracts whose execution does not take place on a regulated market, there is a need to introduce similar requirements for regulated markets under this Regulation. Derivatives traded on regulated markets should also be centrally cleared*").

Article 35 MIFIR regarding "*Non-discriminatory access to a CCP*" explains that the provisions are "*without prejudice of Regulation (EU) No 648/2012*", i.e. without prejudice of Article 7 EMIR.

(2345) As a fifth step, the Commission assessed whether LCH SwapClear would be legally prevented from refusing to clear trades routed via MarkitWire. The in-depth investigation reveals that CCPs are not legally obliged to provide open access to intermediaries such as MarkitWire, even under Article 7 EMIR. Article 7 EMIR indeed applies (i.e. grants open access) to trading venues, and not to middleware providers such as MarkitWire.

(2346) Lastly, as a subsidiary element, the Commission notes that even under Article 7 EMIR, the EU regulatory landscape give CCPs headroom for refusing to clear trades coming from certain trading venues. Commission Delegated Regulation 2017/581 indeed specifies a number of exceptions under which a CCP can deny a trading venue access to its clearing services, in particular based on (i) anticipated volume of transactions, including in case of the threat to the capacity of the CCP or its ability to process the anticipated volume (Article 2 of Commission Delegated Regulation 2017/58), (ii) operational risk and complexity, including regarding incompatible IT systems (Article 3 of Commission Delegated Regulation 2017/58), and (iii) other undue risks (Article 4 of Commission Delegated Regulation 2017/58).

B.1.2.2. Refusal to clear would be possible in practice

(2347) The Commission also assessed whether the combined entity would be in practice (e.g. factually or technically) prevented, post-Transaction, from refusing to clear OTC IRD trades that are not executed through Tradeweb's electronic venues. The Commission's in-depth investigation evidences that LCH SwapClear would not be in practice (e.g. factually or technically) prevented from engaging in such total foreclosure strategy for the reasons detailed below.

(2348) *First*, the Commission assessed what would be required from LCH SwapClear to refuse to clear OTC IRD trades that are executed on trading venues of Tradeweb's rivals (while continuing to clear trades submitted via middleware providers and that are not coming from trading venues of Tradeweb's rivals, i.e. off-venue trades). The Commission's investigation evidences that such a refusal to clear would only entail that LCH SwapClear removes its direct and indirect connections with rival trading venues, and refuse new connections with rival trading venues.

(2349) With respect to direct connection, LCH SwapClear is currently directly connected to two trading venues other than Tradeweb's venues,[2882] namely Bloomberg (i.e., Bloomberg SEF LLC, Bloomberg Trading Facility Limited, Bloomberg Trading Facility B.V.) and Tradition (namely, Tradition SEF, Inc.).[2883] Removing the connection with Bloomberg and Tradition would only require to meet the contractual termination in place between LCH SwapClear and Bloomberg and Tradition respectively.

(2350) With regard to indirect connections, LCH SwapClear is currently indirectly connected to a number of trading venues (namely trading venues belonging to BGC, Bloomberg, CM Capital Markets, Clearmarkets, Grupo cimd, Dealerweb, ELX, GFI,

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2882 LCH SwapClear is currently directly connected to Dealerweb's venue (i.e. DW SEF LLC) and Tradeweb's venues (i.e., Tradeweb EU B.V., Tradeweb Europe Limited, and TW SEF LLC).

2883 See https://www.lch.com/services/swapclear/essentials/approved-trade-source-systems (last accessed on 20 September 2020).

HP C SA, LatAm SEF, MTS Swaps, NEX, Tera Exchange, Tradeweb, TP ICAP, Trading and 42 Financial Services) through the middleware providers MarkitWire and Traiana.[2884] The results of the market investigation show that it is technically possible, for SwapClear to identify where a trade it receives for clearing is coming from (and therefore to identify if it comes from an electronic venue, and which one). By way of example, Bloomberg warns that: *"[…]"*[2885]

(2351) In addition, the feedback collected by IHS Markit, which owns MarkitWire, evidences that post-Transaction, LCH SwapClear would be technically able to refuse trades executed by rivals coming from MarkitWire.

(a) Firstly, IHS Markit clearly explains that the identity of the trading venue is always disclosed to the CCP, through at least two means: the "ExecutionSource" field, as well as the "LEI" (legal entity identifier) of the trading venue. IHS Markit indeed states: "*The trading venue name "ExecutionSource" is provided to MarkitSERV's MarkitWire by the trading venues. The trading venue LEI (legal entity identifier) can also be provided along with the Role/Type of the venue: SEF, MTF etc. This information is sent to the clearing house in the clearing XML. This drives various downstream processes such as trade reporting and clearing broker take-up at the CCPs. We understand that the reporting of the "ExecutionSource" fields may be necessary to ensure compliance with CFTC reporting and trade processing rules:*"[2886] This confirms that LCH SwapClear has two ways to identify where trades routed via MarkitWire originate from.

(b) Secondly, IHS Markit explains that "*when a trade is executed on a venue, the "ExecutionSource" field is always populated. If it was not, this could cause issues to the customers later in the clearing process as described in IHS Markit's letter. When a trade is bilaterally traded, the "ExecutionSource" field is not populated*" (emphasis added).[2887] This confirms that customers do fill-in this form and that the information on the customers' trade source is recorded.

(c) Thirdly, IHS Markit insists that the information provided by customers in the "ExecutionSource" field is very reliable. According to IHS Markit, "*if incorrect information were to be provided in the "ExecutionSource" field and the LEI for some trades, MarkitWire would receive complaints from end-customers. The absence of widespread complaints of this nature provides comfort that both fields are consistently populated with the correct relevant information in most cases*".[2888] This evidences that customers do correctly fill-in this form and that the information on the customers' trade source, which is recorded, is widely reliable.

(d) Fourthly, IHS Markit explains that "*the information regarding the trading venue where the deal was executed is made available to the CCP, because the CCP requires it for the subsequent handling of the trade. Given that this field is used, among other, for credit checks, the absence of it or the incorrectness of the information provided would cause processing problems for the*

2884 See https://www.lch.com/services/swapclear/essentials (last accessed on 20 September 2020).

2885 Bloomberg's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6629.

2886 Questionnaire to MarkitWire, Doc ID 6516.

2887 Minutes of call with IHS Markit dated 28 August 2020, paragraph 11, Doc ID 6667.

2888 Minutes of call with IHS Markit dated 28 August 2020, paragraph 12, Doc ID 6667.

customers"[2889] This confirms that LCH SwapClear does have access, or can have access, to the source of the trades it clears. [2890]

(e) Fifthly, IHS Markit mentions that that "*a CCP could prevent MarkitWire from sending on venue trades to its CCP, i.e. only allowing bilateral (off-venue trades) to be sent to the CCP by MarkitWire*".[2891] This evidences that LCH SwapClear will be able, post-Transaction, to technically foreclose only on-venue trades coming from rival trading venues through MarkitWire, while continuing to clear off-venue trades through MarkitWire.

(2352) In addition, the fact that the identity of the trading venue is provided through the LEI by MarkitWire is also confirmed by CME as a rival CCP: *"CME is able to identify the trading venue with certainty on all trades submitted to clearing. Where the trade is executed on an electronic venue (e.g. on-SEF), CME receives the LEI of the SEF upon submission to clearing. Where the trade is voice brokered or by other non-SEF means (off-SEF) and affirmed on a middleware, CME will receive the name of the middleware provider upon submission to clearing."* (emphasis added)[2892]

(2353) Similarly, one trading competitor who requested anonymity explains why the possibility for customers to submit their trades for clearing through a middleware provider would not prevent the combined entity from discriminating between trading venues (implying as well that LCH SwapClear's has the ability to identify where the trades are executed under all circumstances): *"routing trades to Swapclear via a middleware provider would not be a viable solution for our clients, because -operationally- this would still require Swapclear's authorization of our venue."*[2893] The same competitor who requested anonymity explains indeed that *"since the mnemonic of the venue is embedded in the trade message, and non-voice trades would additionally carry easily identifiable auto-affirmation attributes not attached to voice trades, the CCP could choose to reject or delay certain trades arranged by certain venues and not reject or delay other trades arranged by other venues"*,[2894] which clearly confirms LCH SwapClear's (as any CCP's) ability to identify on which trading venue a given trade was executed.

2889 Minutes of call with IHS Markit dated 28 August 2020, paragraph 13, Doc ID 6667.

2890 More specifically, MarkitWire mentions that, in order to meet the EU legal framework's requirement, "*CCPs request that information regarding the identity and type of trading venue is provided*" and that "*CCPs have imposed rules restricting access to their clearance systems to authorised trade sources, including MarkitWire, as well as specified trading venues. See e.g., LCH's Approved Trade Source Systems*" (Questionnaire to MarkitWire, Doc ID 6516). The mere existence of rules for approved trade sources in LCH SwapClear strongly indicates that, at least for those approved trade sources, LCH SwapClear currently identify the identity of the trading venues the trades originate from, including when the trades are routed through MarkitWire. MarkitWire concludes by mentioning: "W*e would note that this information is required by the CCP regardless of whether the trading venue sends the trade to clear directly to the CCP or using the MarkitSERV MarkitWire direct clearing service.*" For the avoidance of doubts, as regards whether the process of filling in of the trading venue field is automatized or not, MarkitWire mentions that "i*s already standard functionality", and that "The trading venue and associated LEI can be provided by the venue upon submission, if not provided, then the LEI will be defaulted by the MarkitWire system based on the static data provided by the venue to submitting the trade, namely the venue type provided in the submission (SEF, MTF etc.*)".

2891 Minutes of call with IHS Markit dated 28 August 2020, paragraph 24, Doc ID 6667.

2892 CME's response to the Commission's Phase II questionnaire to clearing competitors; Doc ID 5434.

2893 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

2894 Response to the Commission's Phase II additional questions to trading competitors by a trading competitor who requested anonymity; Doc ID 6699.

(2354) *Second*, the Commission assessed what would be required from LCH SwapClear to refuse to clear OTC IRD trades that are not executed on Tradeweb's trading venues (including refusing to clear trades stemming from middleware providers that are not coming from Tradeweb's trading venues, i.e. off-venue trades). The Commission's investigation evidences that such a refusal to clear would only entail that LCH SwapClear removes its direct link with rival trading venues and MarkitWire and Traiana. As explained in recital (2414) above, removing its direct connection with Bloomberg and Tradition would only require to meet the contractual termination in place between LCH SwapClear and Bloomberg and Tradition respectively. Removing its direct link with MarkitWire and Traiana would also only require LCH SwapClear to meet the contractual termination in place between LCH SwapClear and MarkitWire and Traiana, respectively.

(2355) To conclude, based on the above and the evidence available to it, the Commission considers that the combined entity will have the ability post-Transaction to engage in a total foreclosure strategy whereby it would refuse to clear trades that are not executed through Tradeweb given that such a foreclosure strategy is possibly, not only economically, but also legally and in practice (including from a technical point of view). This conclusion holds true irrespective of whether the CCP clearing of OTC IRDs is considered a separate product market, or is segmented by type of OTC IRD contract or currencies.

B.1.3. Partial customer foreclosure strategies would be possible legally and in practice post-Transaction for LCH SwapClear

(2356) The Commission considers that the combined entity will have the ability post-Transaction to engage in the Partial customer foreclosure strategies given that, not only LCH has the market power necessary to engage in such foreclosure strategies (as explained in Section 4.5.36.1.B.1.1. above), but it is also possible legally and in practice for LCH SwapClear to engage in such strategies (as explained in this Section below).

B.1.3.1. Partial customer foreclosure strategies would be possible legally

(2357) The Commission assessed whether the combined entity would be legally prevented, post-Transaction, from engaging into any of the Partial customer foreclosure strategies (listed in recital (2234) above). The Commission's in-depth investigation evidences that LCH SwapClear would not be legally prevented from engaging in such foreclosure strategies, be it before or after the end of the Brexit's transitional period.

(2358) As a first step, the Commission assessed whether Article 7 EMIR would prevent the combined entity from engaging into any of the Partial customer foreclosure strategies (namely, the price-based foreclosure strategy, the technical foreclosure strategy, and the innovation foreclosure strategy). As explained in Section 4.5.36.1.B.1.2.1. above, the EU rules regarding open access of CCP for clearing OTC IRD will not be applicable to LCH SwapClear as of 2021, which means that LCH SwapClear will not be subject to the open access rules embodied in Article 7 EMIR as of this date. While this upcoming legal change will allow LCH SwapClear to engage in a total foreclosure strategy (whereby it would refuse to clear trades from some or all Tradeweb's rivals), it will also allow LCH SwapClear to engage in partial foreclosure strategies materializing around different clearing prices, technical/operational requirements, and cooperation strategies with Tradeweb's rivals.

(2359) As a second step, the Commission assessed whether under the EU rules applicable today to LCH SwapClear, the combined entity could be able, post-Transaction, to foreclose trading venues of Tradeweb's rivals through several means (namely through price based strategies and non-price based strategies that would discriminate Tradeweb's rivals in terms of prices, technical/operational requirements, and cooperation for the introduction of new products). The Commission's in-depth investigation reveals that, even under the current legal framework, the combined entity could legally, without breaching EU rules, engage in a number of partial foreclosure strategies whereby it could discriminate rival trading venues from the following perspectives: (i) prices, (ii) technical/operation requirement, and (iii) cooperation for the introduction of new products.

(2360) In addition, as a subsidiary and general element, the Commission notes that trading venue competitors do not deem EMIR access provisions sufficient to avoid refusal of access,[2895] and voice concerns in relation to partial foreclosure strategies as well.[2896] The Commission acknowledges the fact that CCP respondents to the market investigation in principle agree that EMIR prevents EU CCP access denial to a trading venue.[2897] However, respondents also note that the legislation contains a number of reasons based on which trading venues or CCPs are allowed to refuse access and Eurex notes: "[…] *open access provisions do not replicate the scope of commercial relationships between CCPs and trading venues in the OTC environment nor can the Commission fully regulate all such aspects of commercial cooperation between trading platforms and CCPs in the OTC environment.*"[2898] Eurex adds that a CCP has a variety of ways to degrade the level of cooperation "*without necessarily contravening the open access rules under EMIR.*"[2899]

Price-based foreclosure

(2361) The Commission assessed whether the current legal framework legally prevents LCH SwapClear from applying different clearing fees for customers who executed a trade on Tradeweb and customers who executed a trade on another trading venues or through other means (e.g. via voice).

(2362) *First*, at the outset, the Commission notes that there is no specific provision in EMIR prohibiting explicitly CCPs to apply different pricing or fees to different trading venues.

(2363) *Second*, Article 7 EMIR which obliges CCPs to provide an open access to trading venues does not govern the pricing that CCPs apply to their customers – this Article covers the relationship between CCPs and trading venues. As such, Article 7 EMIR does not explicitly prohibits CCPs to apply different pricing or fees to different trading venues.

(2364) *Third*, it is unlikely that Article 36 EMIR could be interpreted in a way that CCPs are obliged to provide the same fees and prices to their customers, including on the basis of where customers and clients trades OTC IRDs (e.g. that CCPs are obliged to provide the same fees and prices to their trading venues, if they are vertically integrated, and to third party trading venues). As mentioned in recital (2406), Article 36 EMIR obliges CCPs to act in the best interest of their clearing members and

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2895 Question 13 and 13.1, Questionnaire 4 to trading venue competitors, Doc ID 6475.
2896 Question 13 and 13.1, Questionnaire 4 to trading venue competitors, Doc ID 6475.
2897 Question 10, Questionnaire 2 to CCP competitors, Doc ID 6473.
2898 Question 10, Questionnaire 2 to CCP competitors, response of Eurex, Doc ID 6473.
2899 Question 10, Questionnaire 2 to CCP competitors, response of Eurex, Doc ID 6473.

client. Arguing that Article 36 EMIR would prohibit such differentiated pricing is a purely speculative interpretation of this Article. In this context, it can be reasonably expected that some types of differentiated pricing could be set by the LCH SwapClear after the Transaction without breaching Article 36 EMIR.

(2365) *Fourth*, in the same vein, the obligation for the CCP to have transparent and non-discriminatory participation requirements set out in Article 37 EMIR[2900] would not prevent discriminatory pricing based on where the trades are performed, because these obligations only apply to the admissibility of clearing members, irrespective of where they perform their trades. In other words, LCH SwapClear would be compliant with Article 37 EMIR as long as it admits its clearing members based on transparent and non-discriminatory participation requirements – LCH SwapClear would not be breach Article 37 EMIR if it subsequently imposes discriminatory pricing on its members, based on the trading venues where they execute their trades.

(2366) *Fifth*, similarly, the fee transparency provisions set out in Article 38 EMIR appear insufficient to prevent discriminatory pricing. Indeed, while Article 38 EMIR obliges CCPs to "*publicly disclose the prices and fees associated with the services provided*", more specifically for "*each service provided separately, including discounts and rebates and the conditions to benefit from those reductions*",[2901] this Article does not prevent CCPs from applying a differentiated pricing as long as this differentiated pricing is disclosed.

(2367) To conclude, the current legal framework legally does not prevent LCH SwapClear from applying different clearing fees for customers who executed a trade with Tradeweb and customers who executed a trade with other trading venues or through other means (e.g. via voice).

Technical foreclosure

(2368) The Commission assessed whether the current legal framework legally prevents LCH SwapClear from (i) applying different operational or technical requirements to trading venues with which it is not vertically integrated (or to off-venue trades), or (ii) changing its technical or operational requirements regularly (therefore increasing the operational/technical costs of the trading venues of Tradeweb's rivals) and/or in a short time frame (in which case the trading venues of Tradeweb's rivals would incur the risk to lack time to adapt to the new requirements and may be disconnected from LCH SwapClear for a certain period of time, until they can meet again the operational and technical requirements).

(2369) *First*, from a regulatory point of view, there is no specific provision in EMIR that prohibits, or prevents CCPs which are authorized to clear OTC IRDs in the EU, from applying different operational or technical requirements to trading venues with which they are not vertically integrated (or to off-venue trades). There is no provision in EMIR that either prohibits or prevents CPPs from imposing strict technical or operational requirements, or amending these requirements regularly and/or in a short timeframe.

(2370) *Second*, the Commission notes that, to the contrary, the first paragraph of Article 7 EMIR provides for an exception to the open access obligation with regard to the

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2900 Article 37 EMIR provides that the participation requirements for a market participant to become a clearing member at the CCP be "*non-discriminatory, transparent and objective so as to ensure fair and open access to the CCP*".

2901 Article 38 EMIR.

operational and technical requirements that CCP can impose on trading venue. According to this Article, "*A CCP may require that a trading venue comply with the operational and technical requirements established by the CCP, including the risk-management requirements*".

(2371) On the one hand, this Article leaves open the possibility for CCPs to set different operation and technical requirements for, on the one hand, its own trading venues, and, on the other hand, third party trading venues. Indeed, a CCP could legally establish two sets of technical/operational requirements: one lighter set of requirements for the trading venues belonging to its own group, and one (more burdensome and/or expensive) set of requirements for third party trading venues. The combined entity could therefore consider that Tradeweb's venues and Tradeweb's rivals are not in the same position given the vertical link that exists between LCH SwapClear and Tradeweb and that less requirements are needed (e.g. because verifications led by Tradeweb would not need to be replicated by LCH SwapClear).

(2372) On other hand, this Article does not prohibits or prevents CPPs from imposing strict technical or operational requirements, or amending these requirements regularly and/or in a short timeframe. "CCPs *may require that a trading venue comply with the operational and technical requirements established by the CCP, including the risk-management requirements*" and the Article does not restrict the frequency in which CCPs can change these requirements, nor does it impose on CCP an obligation to inform trading venues sufficiently in advance.

(2373) The fact that the current legislation applicable to CCPs is subject to interpretation, and could be either circumvented or interpreted in a way that would give LCH SwapClear headroom for engaging in some type of technical foreclosure is acknowledged by an upstream competitor of the Parties, who requested anonymity: *"our recent experience is that the merged entity may feel empowered to protect a commercial advantage via the use of their own particular interpretation of a rule or guidance to justify blocking certain forms of access where there are few forms of remedy aside from litigation which carries the potential of unsatisfactory outcomes."*[2902]

(2374) *Third*, the Commission's in-depth investigation indicates that Articles 35-38 EMIR would not prevent a vertically integrated CCP from (i) applying different operational/technical requirements , (ii) changing technical/operational requirements in a short timeframe, and/or (iii) setting very high technical/operational requirements for trades coming from rival trading venues

(a) Articles 36 and 37 EMIR govern the relationships between CCPs and their clients and members – not the relations relationships CCPs and trading venues, nor the technical/operational requirements that CCPs can set. This Article would not prevent the technical foreclosure strategies.

(b) Article 38 EMIR would not prevent the technical foreclosure strategies either. While Article 38 EMIR contains some provisions regarding the operational/technical requirements, the Commission notes that (i) such provisions are linked to Article 7 EMIR, and are therefore not applicable to LCH SwapClear as of 2021 and (ii) such provisions only require transparency from the CCPs (and does not forbid any of the potential technical foreclosure

2902 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

strategies described above). Article 38 EMIR indeed provides that "*A CCP shall publicly disclose the operational and technical requirements relating to the communication protocols covering content and message formats it uses to interact with third parties, including the operational and technical requirements referred to in Article 7.*"

(2375) *Fourth*, the Commission assessed whether LCH SwapClear would be legally prevented from engaging in a technical foreclosure strategy against MarkitWire. As explained in recital (2410) above, the in-depth investigation reveals that CCPs are not legally obliged to provide open access to intermediaries such as MarkitWire, even under Article 7 EMIR. Article 7 EMIR indeed applies (i.e. grants open access) to trading venues, and not to middleware providers such as MarkitWire. The same applies to Articles 36-38 EMIR, which do not govern the relations between CCPs and middleware providers. Similarly, the Commission assessed whether LCH SwapClear would be legally prevented from engaging in a technical foreclosure strategy against Tradeweb's rivals through MarkitWire. The results of the market investigation indicate that LCH SwapClear is not prevented, even under the current legal framework, from engaging in a technical foreclosure strategy through middleware providers. Indeed, EMIR does not impose that open access is given to these middle middleware providers. The fact that there is no legal obstacles to a technical foreclosure through MarkitWire is confirmed by Bloomberg, which indicates that it is "*not aware of any regulatory bar to a CCP allowing selective access to MarkitWire, e.g., only for (a) certain trading venues and/or (b) voice trades*".[2903]

(2376) To conclude, the current legal framework legally does not prevent LCH SwapClear from engaging in technical foreclosure strategies whereby it would (i) apply different operational/technical requirements, (ii) change technical/operational requirements in a short timeframe, and/or (iii) set very high technical/operational requirements for trades coming from third party trading venues (including via middleware providers) or for middleware providers.

Innovation foreclosure

(2377) The Commission assessed whether the current legal framework legally prevents the combined entity from engaging in an innovation foreclosure strategy whereby it would discourage or prevent innovation of rival trading venues by refusing to cooperate with trading venues in the context of the development of new products.[2904] For similar reasons to those described above in this Section, regarding technical foreclosure, the Commission concludes that the provisions of EMIR do not legally prevent LCH SwapClear from engaging in such foreclosure strategies.

(2378) *First*, Article 7 EMIR is not be applicable to LCH SwapClear as of 2021 and, in any event, does not provide specific rules regarding the cooperation between CCPs and trading venues for the launch of new products.

2903 Question 3, Questionnaire to Bloomberg of 1 September 2020, Doc ID 6474

2904 The Commission notes as well to this respect that foreclosure strategies applying to new products could also take different forms, such as (i) applying disproportionately high charges for new products available to trade in Tradeweb's rivals or (ii) making the clearing of new products available to trade in Tradeweb's rivals particularly less attractive of burdensome. Nonetheless, the Commission considers that the former would fall into the scope of price-based foreclosure strategies described in this Decision in relation to OTC IRDs, and that the latter would fall into the scope of technical foreclosure strategies described in this Decision in relation to OTC IRDs.

(2379) *Second*, Articles 36-38 EMIR which will remain applicable to LCH SwapClear after the end of the Brexit transitional period, do not prevent innovation foreclosure strategies, as described in recital (2442) above.

(a) Articles 36 and 37 EMIR govern the relationships between CCPs and their clients and members – not the relations relationships CCPs and trading venues, nor the technical/operational requirements that CCP can set. This Article would not prevent the above-mentioned innovation foreclosure strategy.

(b) Article 38 EMIR would not prevent the innovation foreclosure strategies either. These provisions requires CCPs to operate a on a transparent basis for a number of elements (including the operational/technical requirements) – it does not require a non-discrimination treatment of trading venues for the launch of new products.

B.1.3.2. Partial foreclosure strategies would be possible in practice post-Transaction for LCH SwapClear

(2380) The Commission also assessed whether the combined entity would be in practice (e.g. factually or technically) prevented, post-Transaction, from engaging into the Partial customer foreclosure strategies. The Commission's in-depth investigation evidences that LCH SwapClear would not be in practice (e.g. factually or technically) prevented from engaging in such foreclosure strategies for the reasons detailed below.

LCH SwapClear would have the ability to identify the trading venue where a deal was executed, even when the deal is submitted via MarkitWire

(2381) The Commission considered whether, as claimed by the Notifying Party, LCH SwapClear does not have the ability to control the content or the reliability of any information contained in tickets that are routed indirectly to SwapClear via a middleware provider (as a consequence of which LCH SwapClear would not be in a position to exert pressure on MarkitWire in order to impose requirements on it).[2905] The Commission observes the following elements.

(2382) *First*, the Commission assessed whether a large number of customers currently use MarkitWire. In this regard, the market investigation confirms that the vast majority of customers use MarkitWire for all trades (namely, 62% of customers), and plan on keeping using MarkitWire in the next 2-3 years (namely, 77% of customers).[2906]

(2383) *Second*, as mentioned above in Section 4.5.36.1.B.1.2.2. above, the results of the market investigation clearly evidenced that it is technically possible, for SwapClear to identify where a trade it receives for clearing is coming from (and therefore to identify if it comes from an electronic venue, and which one).

Price-based foreclosure would be possible in practice

(2384) The Commission assessed whether LCH SwapClear would have the ability in practice to apply different pricing or fees to trades, depending on whether they were executed on trading venues of Tradeweb's rivals or outside of trading venues of Tradeweb's rivals.

2905 Form CO, paragraphs C.V.113, C.V. 152 and C.V.265 to C.V.285, Notifying Party's response to the decision pursuant to Article 6(1)(c), paragraph 128.

2906 Question 13, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

(2385) *First*, the Commission assessed whether LCH SwapClear will be, post-Transaction, in a position to determine where a given trade originates (*i.e.* on which trading venue it was executed), even on the occasions where this trade was submitted through MarkitWire. As explained in Section 4.5.36.1.B.1.2.2. above, LCH SwapClear is technically able to identify from which trading venues the trades it receives for clearing come from, even when they come via MarkitWire. As such, LCH SwapClear will be technically able to apply set different price-based requirements to trades executed on trading venues of Tradeweb's rivals or outside of trading venues of Tradeweb's rivals.

(2386) *Second*, the Commission assessed whether LCH SwapClear will be, post-Transaction, in a commercial and contractual position to raise prices, fees, or clearing costs, for trades executed on trading venues of Tradeweb's rivals or outside of trading venues of Tradeweb's rivals in light of the Notifying Party's claim that SwapClear [description of a term of SwapClear's commercial arrangement].

(2387) As a first step, the Commission assessed LCH SwapClear's pricing framework, in particular the fees and prices that LCH SwapClear charges to its clearing customer, and how LCH SwapClear charges these fees and prices. The Commission's findings, based on the results of the market investigation and the evidence available to it, in this respect are summarised below.

(a) For D2D OTC IRD trades, customers' clearing costs come from four components: (i) clearing fees (divided between booking fees and maintenance fees), (ii) compression fees (if the clearing member uses SwapClear's compression services), (iii) margin requirements (reflecting the risk associated with the trade) and (iv) in some cases, an additional fee if the OTC IRD contract references the ICE LIBOR index. All these cost components are payable on a per-trade basis. Nonetheless, dealer banks can also apply for one of the four proposed memberships offered by SwapClear (Platinum, Gold, Silver and Bronze) in order to optimize their costs. For instance, under the Silver membership, no maintenance fees apply, and the booking fees do not apply for the first 20 000 contracts, in exchange for an annual membership fee of GBP 1.5 million.[2907] As a result, the Notifying Party explains that in general no per-cleared trade fees are due, since the dealer bank is either on an all you can eat tariff (such as the Gold and Platinum plans with respect to all products to the exception of inflation swaps and NDIRS[2908]) or below the volume cap of a lower tier volume-based plan (such as the Silver membership described above).[2909]

(b) For D2C OTC IRD trades, the payment structure is the same, but the buy-side client pays the clearing fees (booking fees and maintenance fees) via the dealer bank. As a result, SwapClear does not invoice any buy-side clients directly.

(c) For both D2C and D2D trades, customers (dealers) of LCH SwapClear can be charged by the CCP directly for the clearing service provided, or this fee can be charged by the trading venue under the form of a combined fee for both trading and clearing services, and subsequently passed on to the CCP.

2907 Form CO, Annex *"Sections 6C.V_8C.V_IRDs_Annex 4_ Fees and conditions applicable to LSEGs clearing services (revised 10.02.2020)"*

2908 Non-deliverable interest rate swaps

2909 RFI 28 reply, question 5.

(2388) As a second step, the Commission assessed whether the [description of a term of SwapClear's commercial arrangement] effectively prevent(ed) it from increasing prices. To do so, the Commission reviewed the SwapClear agreement, LSEG's internal documents, and LCH SwapClear's publicly disclosed price information.

(2389) Firstly, the Commission notes that the fact that LCH SwapClear committed [description of a term of SwapClear's commercial arrangement]. Indeed, according to LCH SwapClear's website,[2910] (i) the Bronze membership fee is currently set at GBP 0.5 million [description of a term of SwapClear's commercial arrangement]; the Silver membership fee is currently set at GBP 1.5 million [description of a term of SwapClear's commercial arrangement]; and the Gold membership fee is currently set at GBP 2.5 million [description of a term of SwapClear's commercial arrangement]. Therefore, the Commission concludes that LCH SwapClear is able to increase the membership fees [description of SwapClear membership types] in support of a potential price-based customer foreclosure strategy.[2911]

(2390) Secondly, the Commission notes [description of a term of SwapClear's commercial arrangement][2912] [description of a term of SwapClear's commercial arrangement].[2913] Therefore, the Commission concludes that LCH SwapClear is able to increase prices for these services and products in support of a potential price-based customer foreclosure strategy.

(2391) Thirdly, the Commission's in-depth investigation reveals that Platinum membership fees only constitute a fraction of all clearing fees set by LCH SwapClear, as can be seen in the recent extract of LCH SwapClear's June business review presented in Figure 37 below. More precisely, [analysis of membership fees as a proportion of clearing and compression fees][2914],[2915] [analysis of membership fees as a proportion of clearing and compression fees],[2916, 2917] [analysis of membership fees as a proportion of clearing and compression fees],[2918] [analysis of membership fees as a proportion of clearing and compression fees].[2919] Overall, this means in particular that all membership fees (including non-Platinum fees) represent [analysis of membership fees as a proportion of clearing and compression fees].

2910 https://www.lch.com/services/swapclear/fees (last accessed on 20 September 2020).

2911 See Annex *"Sections 6C.V_8C.V_IRDs_Annex 8_ [internal document]"* of the Form CO.

2912 Namely [description of a term of SwapClear's commercial arrangement].

2913 Form Co, M.9564_IRD_Annex 08_[internal document].

2914 Not specified by the Notifying Party

2915 [Description of a term of SwapClear's commercial arrangement].

2916 [Analysis of membership fees as a proportion of clearing and compression fees].

2917 Moreover, non-Platinum members may have to pay additional fees which usually apply only to non-members sell-side customers of LCH SwapClear in the event that they clear a number of trades above a given threshold. For instance, under the Silver membership, no maintenance fees apply, and the booking fees do not apply for the first 20 000 contracts only, in exchange for an annual membership fee of GBP 1.5 million. Above 20 000 contracts, the regular booking fees usually paid only by non-members sell-side customers of LCH SwapClear would apply. Therefore, given the structure of non-Platinum membership fees, any increase to non-member fees might have an effect on members as well, insofar as some of them clear above the thresholds set into their membership contract.

2918 This is because clients pay separate fees, and do not have access to any type of membership. This stems from the fact that for every D2C deal, buy-side fees apply. To this respect, not only does the Commission observe that nothing would prevent LCH SwapClear from increasing buy-side fees […], but the Commission also notes that it might be a particularly effective strategy for LCH SwapClear to implement in the context of a potential customer foreclosure strategy, given the prevalent role of buy-side clients in D2C transactions in deciding on the trading venue and CCP which will be used by both parties to the trade for the purpose of executing and clearing the transaction.

2919 [Description of a term of SwapClear's commercial arrangement].

(2392) [Analysis of membership fees].

Figure 37

[analysis of membership fees as a proportion of clearing and compression fees]

Source: [analysis of membership fees as a proportion of clearing and compression fees]

Figure 38

[internal document]

Source: [internal document]

(2393) In conclusion, the Commission considers [analysis of pricing structure and strategy].

(2394) As a third step, the Commission assessed the effectiveness of LCH SwapClear' commitment toward clearing members [description of a term of SwapClear's commercial arrangement] by looking into LCH SwapClear's pricing behaviour since 2019. In this regard, the Commission observes that the [description of a term of SwapClear's commercial arrangement], has so far proven mildly effective. LCH's internal documents evidence that the Platinum membership fee have increased at least three times since January 2019 (from GBP 2.55 million to GBP 2.9 million).

(a) In January 2019 ([discussion of commercial negotiation]), the Platinum membership fee went from GBP 2.55 million to GBP 2.775 million;

(b) Later in 2019, the Platinum membership fee was increased to GBP 2.8 million;[2920]

(c) In March 2020, the Platinum membership fee was increased to GBP 2.9 million, as reflected in Figure 39 below.

[2920] [Commercial strategy].

Figure 39



Home / Membership / LTD Membership / Ltd Member Updates / Revised SwapClear Inflation Swaps Fee Tariff

Revised SwapClear Inflation Swaps Fee Tariff

Wed, 18/03/2020

Circular No.	LCH Circular **No 4082**
Date:	18th March 2020
To:	All LCH Limited SwapClear Clearing Members

Dear SwapClear Member,

LCH Limited is writing to inform SwapClear Clearing Members of the introduction of a revised Inflation Swaps fee tariff, which will apply from 1 April 2020 (subject to regulatory review). This is in light of the following enhancements to our Inflation products and services: launch of both Solo, Blended Rate and Approved Compression Service Provider (ACSP) compression for ZC Inflation Swaps, and the launch of Standard Coupon Inflation Swaps clearing.

Clearing Member – Platinum Tariff

A SwapClear Clearing Member or Member Group to which the Platinum Tariff applies shall have their annual fee increased from £2,800,000 to £2,900,000.

Note: For 2020 this will be a pro-rated amount of £2,875,000.

Clearing Member – All Other Tariffs

A SwapClear Clearing Member or Member Group that has elected the Bronze Tariff, the Silver Tariff or Gold Tariff and is on the Regular Pricing Plan for Inflation Swaps shall have the Inflation Cap increased from £300,000 to £400,000.

Note: For 2020 this will be a pro-rated amount of £375,000.

Kind regards,

LCH Relationship Management

Source: https://www.lch.com/membership/ltd-membership/ltd-member-updates/revised-swapclear-inflation-swaps-fee-tariff (last accessed on 6 September 2020).

(2395) The Notifying Party states, in relation to the last increase, that it was implemented following consultation with LCH SwapClear's clearing members.[2921] The Commission considers that this argument does not alter the fact that LCH SwapClear is able to increase the membership fees despite [description of a term of SwapClear's commercial arrangement], while noting that an increase was already made previously. In addition, the fact that its clearing members accepted the price increase further evidence LCH SwapClear's dominance and the limited countervailing buyer power of the clearing members.

(2396) As a result, LCH SwapClear has already increased its Platinum membership fees by 4.5% [description of a term of SwapClear's commercial arrangement]. This shows that LCH [description of a term of SwapClear's commercial arrangement] does not effectively prevent LCH SwapClear from increasing it, nor does it prevent LCH SwapClear from engaging in a price-based foreclosure strategy.

2921 Footnote 87 of the Response to the decision pursuant to Article 6(1)(c)

(2397) Moreover, LCH SwapClear's website keeps track of several other [rate changes], such as the "*Euro Short Term Rate (€STR) Rate Change Notice*" passed on 20 July 2020,[2922] or the "*Secured Overnight Financing Rate ("SOFR") Rate Change Notice*" passed on 28 August 2020.[2923] The format of all these decisions is similar to the one of Figure 39 above. All these elements suggest that there is still a non-negligible margin for the making of […].

(2398) As a fourth step, the Commission assessed the market dynamics that led to LCH SwapClear's commitment to [description of a term of SwapClear's commercial arrangement]. As demonstrated above in Section 4.5.36.1.B.1.1.7., the revision of the [description of commercial strategy and negotiations].

(2399) As a result, the Commission considers that while the [analysis of membership fees] may prevent LCH SwapClear from increasing prices as much as LCH SwapClear would like to absent these commitments, [analysis of membership fees] is not sufficient to prevent LCH SwapClear from engaging in a potential price-based customer foreclosure for a significant share of LCH SwapClear's clients and for a significant share of LCH SwapClear's fee components.

(2400) In view of the above, the Commission considers that, based on the above considerations and the evidence available to it, a price-based partial customer foreclosure is possible. As the pricing mechanisms described in this section apply in the exact same way to the clearing of all types of OTC IRD contracts denominated in all currencies, this conclusion holds true irrespective of whether the CCP clearing of OTC IRDs is considered a separate product market, or is segmented by type of OTC IRD contract or currency.

Technical foreclosure would be would be possible in practice

(2401) The Commission assessed whether LCH SwapClear would have the ability in practice to (i) apply different operational or technical requirements to trading venues with which LCH SwapClear is not vertically integrated (or to off-venue trades), or (ii) change LCH SwapClear's technical or operational requirements frequently (therefore increasing their operational/technical costs) and/or in a short time frame (in which case trading venues of Tradeweb's rivals would risk to lack time to adapt to the new requirements and may be disconnected to LCH SwapClear for a certain period of time, until they can meet again the operational and technical requirements).

(2402) *First*, from a technical point of view, the market investigation provided indications that given the complexity of the multi-layered workflows handled by LCH SwapClear for the purpose of clearing a given transaction, there would be numerous ways in which LCH SwapClear could degrade the connectivity or processing of trades originating from trading venues of Tradeweb's rivals and submitted for clearing at LCH SwapClear. The market investigation therefore provided indications that there could be as many possible delays or alteration as there are steps in the process. In this respect, an upstream competitor who requested anonymity, provides several examples of how the combined entity could degrade the connectivity or processing of trades.[2924] This competitor submits that "*there are multiple blatant or*

2922 https://www.lch.com/membership/ltd-membership/ltd-member-updates/euro-short-term-rate-eustr-rate-change-notice, last accessed on 6 September 2020.

2923 https://www.lch.com/membership/ltd-membership/ltd-member-updates/secured-overnight-financing-rate-sofr-rate-change, last accessed on 6 September 2020.

2924 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

subtle anti-competitive strategies the merged entity may adopt in order to damage particular market participants in terms of punitive costs, requiring specific or conditional terms for permissioning to be met, the threat of revoking provision of some related IT services, intentionally delayed or no co-operation on new products, or by the lengthy extension of the negotiation of legal agreements."[2925] The same trading competitor who requested anonymity explains that *"It would be technically possible for a CCP to create a workflow that could deliver trades more quickly into the clearing cycle via a direct connection rather than via a third party interface such as Markitwire. There is already a time gap between non-voice trades and voice trades submitted by Markitwire as most non-voice trades have a degree of auto affirmation that doesn't identically exist for voice (which has a multi-step semi-manual process). This arrangement is currently comfortable within the trading community as the time clients have to manually affirm trades is limited. However, a particular CCP could introduce additional affirmation steps or lengthen the release time for voice transactions to disadvantage and degrade voice users which would be outside the control of Markitwire and which would diminish the value of voice arrangement generally."*[2926] This was also confirmed by Eurex, explaining that *"a CCP could set burdensome technical terms that a trading venue would be required to meet. While many of these technical requirements may be necessary to ensure seamless service (e.g. for straight through processing), the CCP could implement requirements intended to raise the trading platform's costs or degrade performance. LCH could degrade existing access by implementing new technical requirements or delaying investment in implementing technical changes to support the trading platform."*[2927]

(2403) As regards the Notifying Party's argument that neither Eurex nor CME appear to be aware of how technical degradations could take place, CME indeed mentions being "*not aware of any other technical or operational process a CCP could (or would) employ to degrade or disadvantage one trading venue over another.*"[2928] This should be put into balance with other responses of CCPs and trading venues cited in the SO (as well as the present Decision) that are aware of such possibilities and provide concrete examples of such possibilities. It so occurs that CME is in a minority position in its opinion that technical foreclosure is not possible (or rather in its ignorance of such possibility).[2929] As for Eurex, the Commission considers that Eurex's statement in reply to the Commission's first set of question (*"Eurex is not aware of any specific examples of CCPs imposing disadvantageous operational/technical requirements on trading venues"*[2930]) is not evidence that

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2925 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694. The Commission notes that in this list, "*punitive costs*" would rather relate to price-based foreclosure, and *"intentionally delayed or no co-operation on new products"* is the precise description of the innovation foreclosure theory of harm assessed by the Commission.

2926 Response to the Commission's Phase II additional questions to trading competitors by a trading competitor who requested anonymity; Doc ID 6699.

2927 Eurex's response to Question 12 of the Commission's Phase II questionnaire to clearing competitors; Doc ID 6212.

2928 CME's response to Question 1 of the Commission's follow-up questions to its Phase II questionnaire to clearing competitors; Doc ID 6341.

2929 CME is the only respondent mentionning that it is not aware of such possibilities, while Eurex, Bloomberg and a trading competitor who requested anonymity consider on the contrary technical foreclosure to be possible.

2930 Eurex's response to Question 12 of the Commission's Phase II questionnaire to clearing competitors; Doc ID 6212.

Eurex believes that such technical foreclosure is impossible (and indeed Eurex provided some very concrete examples of possible technical degradations at clearing level in response to the Commission's second set of question in the course of the in-depth investigation). Eurex simply states that it has no historical knowledge of such customer strategies being undertaken in the context of OTC IRDs, which is very different.

(2404) As regards the Notifying Party's argument that the Commission failed to ask customers whether/how technical degradation was possible, and that as a result, the Commission didn't give customers a proper chance to state that they might consider that such degradation is impossible/implausible, the Commission considers that customers would not be best placed to answer questions about the various technical foreclosure strategies that are possible. In addition, no customer (out of more than 50 respondents), in response to the various questions asked by the Commission regarding potential technical customer foreclosure strategies in the course of Commission's market investigation, provided answers suggesting that they considered the foreclosure scenarios submitted to them unlikely or implausible or impossible to implement for a reason or another (while, by contrast some customers did so in relation to the foreclosure of MarkitWire[2931] – as acknowledged by the SO and the present Decision– while they had not been asked questions regarding this precise customer foreclosure scenario that were more detailed or numerous than the ones they were asked regarding technical foreclosure).

(2405) The possibility LCH SwapClear has to implement targeted alterations in relation to certain categories of trade flows is confirmed by LCH SwapClear's internal documents. In the "Product eligibility" section of its 2016 report, LCH's chief compliance officer notes that [description of risk management policy].[2932] While this practice relates to specific product categories rather than specific trade originations (*i.e.* trades originating from a specific trading venue), and while this does not appear to be in violation of regulation, this clearly evidences that LCH SwapClear has the discretion to decide to apply a specific treatment to certain trade flows, as long as LCH SwapClear is in a position to identify them, both in terms of timeframe and pricing.

(2406) In a very similar manner, in the context of a discussion with the Bank of England regarding MIFID II compliance, with respect to a proposition by LCH SwapClear to hold and investigate trades exceeding the mandatory maximum 10 seconds time frame for acceptance, rather than rejecting them, LCH SwapClear describes in writing several manners through which the clearing of a transaction can be delayed as a result of LCH SwapClear's action, or other circumstances: [description of compliance with EU financial regulation].[2933] In a context where [description of compliance with EU financial regulation], LCH SwapClear would have the ability to give priority to trades executed on Tradeweb over trades executed on rival trading venues, with the effect of selectively delaying trades executed on rival trading venues. Nothing would prevent either LCH SwapClear from implementing manual reviews, additional checking steps, or targeted monitoring of some trade flows in such a way that these would selectively apply to trades executed on a given trading venue, and would result in effectively delaying a proportion of the trades executed on

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2931 See Question 3, Questionnaire 22 to OTC IRD trading and clearing customers, responses of Société Générale, and, to a lesser extent, BNP Paribas, Doc ID 6679.

2932 ID4698-4606, page 7

2933 ID6236-775

rival trading venues and degrading the service to customers executing trades on rival trading venues.

(2407) The Commission notes as well that the possibility to alter the combined entity's process in order to make trading at Tradeweb and clearing at LCH SwapClear was at least [commercial strategy]. As already mentioned above in Section 4.5.36.1.B.1.1.8., in a report made by [commercial strategy].[2934] Thought the statement is very vague, the Commission understand from this that the combined entity would at least consider the possibility to implement [commercial strategy].

(2408) *Second*, the Commission's market investigation also provided indications that LCH SwapClear could make trading on rival trading venues less attractive or much slower by denying certain key functionalities for trades executed on rival trading venues. A trading competitor who requested anonymity comments: *"The loss of access to Initial/Variation Margin checks would have a severely detrimental effect on our competitiveness. Our trade confirmation and booking process could take a whole day (if not more) as opposed to a few seconds/minutes under the current service provision. This would leave the client with significant uncertainty around the execution process and our firm would suffer from significant reputational damage. In a highly competitive environment such as the* [CONFIDENTIAL] *market for OTC IRD, we expect our clients would respond to this by moving their business to a competing venue with access to these ancillary services.* […] *PTRR*[2935] *are a crucial ancillary service, mandated or otherwise encouraged by regulators, and bringing important economic and risk benefits to participants.* […] *the loss of access to a particular provider could have a foreclosing effect on our venue."*[2936] Similarly, the same competitor who requested anonymity suggest that such a strategy could also be applied to future enhancements developed by LCH SwapClear at clearing level, explaining that *"Also, a CCP could provide certain information enrichment only to trades submitted by certain venues such as Tradeweb or a CCP could add certain beneficial tags to trades coming in from certain providers that would render certain trades more easily processed in swap compression runs performed by those firms."*[2937]

(2409) Bloomberg as well confirms that restricting access to ancillary functionalities is a way LCH SwapClear could put into place in order to make trading on Tradeweb more attractive: *"[...]"*[2938] The Commission observes that according to Bloomberg, the same reasoning holds if customer's access to such ancillary functionalities is not entirely prohibited by the combined entity (in a definitive manner), but only delayed in order to provide Tradeweb with a first-mover advantage which would lastingly reflect into customer's preferences.

2934 ID4257-36327

2935 Post Trade Risk Reduction Services

2936 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

2937 Response to the Commission's Phase II additional questions to trading competitors by a trading competitor who requested anonymity; Doc ID 6699. For the avoidance of doubt, the Commission considers that a scenario whereby LCH SwapClear would offer additional functionalities to Tradeweb customers only should not be considered as a potential efficiency stemming from the Transaction, given the strong likelihood that such enhancements would have been made available to all customers (and not only Tradeweb customers) absent the Transaction, in light of LCH SwapClear's current functioning as an horizontal CCP, and its strong commitment to open-access, as put forward by the Notifying Party.

2938 Bloomberg's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6629.

(2410) The fact that by denying access to certain key functionalities, a CCP could make the clearing of trades originating on certain trading venues selectively slower of degrade the service provided to customers is confirmed by Eurex, which explains that *"LCH could also refuse to provide information that may be required for a trading venue to compete effectively in the future, such as refusing to provide real time information on client margin positions that could be used to determine the cost of a transaction before execution or to enable pre-trade clearing certainty as part of an important potential future development from a buy-side perspective."*.[2939]

(2411) *Third*, the Commission's investigation provides indications that LCH SwapClear could also impose disadvantageous technical requirements to Tradeweb's rivals upstream in relation to their existing connection with LCH SwapClear. For instance, Bloomberg is of the opinion that *"[...]"*[2940] The Commission notes that in this scenario, even if Tradeweb's rivals are eventually able to match the new requirements imposed by LCH SwapClear, or even provided with the means to do so by LCH SwapClear itself (by ways of a – delayed – form of cooperation for instance), the market changes that might occur would be likely to have long-lasting damageable effects for Tradeweb's rivals. This is because network effects and customer's stickiness are such that large swings in the upstream market are likely to be difficultly reversible, even when the market conditions revert back to their initial setup.

(2412) According to Bloomberg, this scenario is all the more credible than it is already a strategy which is put in place by ICE in the context of the trading and clearing of oil-based future contracts. According to Bloomberg, ICE is active in this market upstream through its exchange ICE Futures Europe and downstream through its clearing house ICE Clear Europe, and has been implementing a strategy aiming at restring access to ICE Clear Europe by imposing inescapable technical requirements for the clearing of futures on ICE Clear Europe (essentially by imposing the use of ICE's API or equivalent ICE-approved application), thus making the use of ICE Futures Europe compulsory in practice for customers wishing to clear on ICE Clear Europe: *"[...]"*[2941]

(2413) *Fourth*, the Commission's in-depth investigations confirms that the above reasoning holds irrespective of whether the trades are submitted through MarkitWire or not. Indeed, as demonstrated in Section 4.5.36.1.B.1.2.2. above, LCH SwapClear will be, post-Transaction (as it is already as of today), in a position to determine where a given trade originates (i.e. on which trading venue it was executed), even on the occasions where this trade was submitted through MarkitWire.

(2414) For trades submitted to LCH SwapClear for clearing via a direct connection to the trading venue, LCH SwapClear could degrade the connectivity with rival trading venues, making use of the different mechanisms described above.

(2415) For trades which are submitted for clearing via MarkitWire, having the ability to identify where the trades originate, LCH SwapClear could apply a discriminatory treatment, as described above, only to the trades originating from rival trading

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2939 Eurex's response to the Commission's Phase II additional questions to clearing competitors; Doc ID 6529.

2940 Bloomberg's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6629.

2941 Bloomberg's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6629.

venues. This was confirmed by an upstream competitor who requested anonymity, insisting that "*It would be technically possible for a CCP to create a workflow that could deliver trades more quickly into the clearing cycle via a direct connection rather than via a third party interface such as Markitwire.* […] *a particular CCP could introduce additional affirmation steps or lengthen the release time for voice transactions to disadvantage and degrade voice users which would be outside the control of Markitwire and which would diminish the value of voice arrangement generally.*"[2942] Similarly, and in a more concise way, Bloomberg confirms that *"[…]"*[2943] This was also confirmed by Eurex, explaining that even for trades routed via MarkitWire, *"the merged firm could still engage in the same types of conduct described in our additional response of 27 August 2020*[2944] *that would apply to disadvantage particular competing trading venues. Since in many cases the CCP can identify the trading venue where an instrument is executed, this information would apply equally to discrimination (i) between competing trading venues or (ii) between contracts traded electronically on trading venues compared to those traded in the voice environment.*"[2945, 2946] Therefore in view of the evidence available to it, the Commission considers that it is more likely than not that LCH SwapClear would have the ability to degrade the processing of trades executed on rival trading venues, even when these trades are submitted through MarkitWire.

(2416) In addition, for trades which are submitted for clearing via MarkitWire, the Commission's market investigation provided indications that LCH SwapClear could also implement a foreclosure strategy whereby it would apply a degradation to the connectivity to all trades submitted for clearing via MarkitWire. The Commission's market investigation provided indications that applying a degradation of connectivity or a delay in treatment to all trades submitted through MarkitWire might function for two reasons, namely (i) in the (extreme) case that LCH SwapClear was no longer

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2942 Response to the Commission's Phase II additional questions to trading competitors by a trading competitor who requested anonymity; Doc ID 6699. The last sentence of this quote relates to voice trades, but the Commission considers that it can be applied equally to any other stream of trades submitted for clearing through MarkitWire, as long as LCH SwapClear would be in a position to identify and discriminate them. This is because the mechanisms described in the second sentence ('*introduce additional affirmation steps or lengthen the release time for voice* transactions') are by no means specific to voice trading, and could be applied equally to electronic trades submitted for clearing at LCH SwapClear via MarkitWire.

2943 Bloomberg's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6629.

2944 Doc ID 6212

2945 Eurex's response to the Commission's Phase II additional questions to clearing competitors, Doc ID 6529.

2946 The Commission acknowledges nonetheless that CME does not appear to be aware of any way through which a CCP could apply technical degradation to trades submitted through MarkitWire: "*For trades routed via MarkitWire, but executed on a trading venue, CME can identify the trading venue using the LEI. With this information, we ensure that it is a registered trading venue but do no further validation, making it impossible to provide preferential treatment. We are not aware of any other technical or operational process a CCP could (or would) employ to degrade or disadvantage one trading venue over another.*" – See CME's response to the Commission's Phase II additional questions to clearing competitors, Doc ID 6341. However, the fact that a competitor is not aware of such possibilities is not proof that such possibilities do not exist (especially in view of the fact that other market participants consider that these possibilities exist, and provide concrete examples of such disadvantageous treatments that could be selectively applied to certain categories of trades submitted through MarkitWire). Additionally, the fact that CME today does not further validate the trading venue registration, does not mean that adding an appropriate validation step is not possible, if CME chose to do so.

connected to MarkitWire for voice trades, a majority of customers (42%) would move a significant share of their voice trades towards electronic trading venues,[2947] and (ii) in the same (extreme) scenario, a majority (63%) of customers would continue to clear the remaining voice trades (*i.e.* the trades that they would continue to trade by voice despite the fact that LCH SwapClear is no longer connected to MarkitWire) with LCH SwapClear.[2948] Similarly, and for the exact same reasons, the Commission's market investigation suggested that a foreclosure strategy whereby LCH SwapClear would completely remove the possibility to submit trades for clearing at LCH SwapClear via MarkitWire would prove successful as well. The Commission notes however to this respect that a small minority of market participants (one or two out of 47 respondents) expressed strong views as to the major change to the market structure that such disruption would generate, and the likelihood that major customers might retaliate and LCH SwapClear might end up losing substantial business.[2949]

(2417) The Commission therefore considers that, post-Transaction, the combined entity would have the ability to partially foreclose upstream rivals through changing LCH SwapClear's operational or technical requirements to the detriment of rival trading venues. As technical degradations described in this section would be applicable in the exact same way to the clearing of all types of OTC IRD contracts denominated in all currencies, this conclusion holds true irrespective of whether the CCP clearing of OTC IRDs is considered a separate product market, or is segmented by type of OTC IRD contract or currency.

Innovation foreclosure would be possible in practice

(2418) *First*, the Commission investigated the genesis and lifecycle of a new products at both trading and clearing level.

(2419) With respect to the Notifying Party's argument that innovation at clearing level is driven by customers, so that LCH would not have the ability, despite its strength in the downstream clearing market, to prevent innovative products from being deployed and commercialized, it was at least partly confirmed by the outcome of the market investigation, which confirmed that ideas for new products came in majority from customers. A substantial proportion (40%) of customers consider that customers generally come up with the ideas for new products.[2950]

(2420) The market investigation confirmed that the lifecycle of a new product indeed follows generally the description provided by the Notifying Party, in the sense that (i) customers generally propose ideas for new products, which then come into use as voice-traded products, (ii) if there is sufficient demand for making these products cleared, CCPs will make them available for clearing in a second time (possibly years after the new product first begun to be voice-traded) and (iii) if there is enough demand for these products to become electronically traded, trading venues will start working with customers and CCPs in order to make these products available for electronic trading. For instance, as mentioned by the sell-side customer Danske Bank

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2947 Question 2.1, Questionnaire 22 to OTC IRD trading and clearing customers, Doc ID 6679. 36% of customers would move a limited shares of voice trades towards electronic trading venues, and 21% would not move any portion of their voice trades towards electronic trading venues.

2948 Question 2.2, Questionnaire 22 to OTC IRD trading and clearing customers, Doc ID 6679. 37% would move a substantial part of these voice trades' clearing towards other CCPs.

2949 See Question 3, Questionnaire 22 to OTC IRD trading and clearing customers, response of Société Générale, and, to a lesser extent, BNP Paribas, Doc ID 6679.

2950 Question 43, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

A/S: "*New products arise because counterparties have risk to exchange. Fundamentally, this comes long before venues or CCPs. As a product then matures, it can move into the cleared space and from there into the e-trading space.*"[2951] Similarly, the sell-side customer Lloyds banking group states that "*New product ideas are generally driven by customer demand and depending on what the need is this will entail collaboration with a CCP or trading venue. CCPs will be involved in adding new products to be cleared or new ways to provide capital charge benefits such as daily margining of XCCY IRS or portfolio margining of listed IRD and OTC IRD. Venues will be involved in adding new products for electronic execution or ways to execute those products such as package / list trading of IRD.*"[2952] Describing the exact same steps, in the exact same order, the sell-side customer Nomura International Plc comments "*Customers and market makers tend to create new products due to client demand. Market makers work with CCPs to make them clearable, where there is sufficient benefit and volumes to make clearing beneficial. CCPs and customers/market makers work with venues to add connections on venues where there is sufficient demand.*"[2953] Some customers even mention that these steps are distinct to such an extent that a considerable amount of time can elapse between the time when a new products starts being voice-traded and the time when the same product becomes available for clearing: the buy-side customer Citadel group mentions for instance that "*Customers and trading venues are usually driving the innovation with regards to any new product. CCPs are involved at the stage where the product set is mature and there is a robust bilateral market in place. This can be a considerable amount of years after the product set is considered routine in nature. ZC Inflation Swaps and Asia NDF Swaps are a few products that were onboarded at LCH years after the bilateral market was mature*".[2954] In short, as summarized by the buy-side customer Crédit Suisse: *"Customer preference leads to CCP adoption leads to trading venue availability."*[2955]

(2421) This chronology in the different phases of the lifecycle for a new product is also confirmed by Eurex as a downstream rival CCP: *"Trading venues typically approach CCPs to collaborate when they believe that central clearing for a particular traded product will enhance their offering. Particularly for more complex instruments, close collaboration is required for technical application of risk models and other aspects needed to support central clearing."*[2956]

(2422) In addition, and consistent with the above, the Notifying Party itself refers to the third step of this process (when trading venues work towards making electronically tradable a product which is already available for clearing) in the context of the Notifying Party's arguments regarding a potential input foreclosure scenario in relation to the trading and clearing of OTC IRD: *"In the very limited circumstances where there is a 'new product' collaboration that Tradeweb might want to develop*

2951 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Danske Bank A/S, Doc ID 6472.

2952 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of the Lloyds banking group, Doc ID 6472.

2953 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Nomura International Plc, Doc ID 6472.

2954 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of the Citadel group, Doc ID 6472.

2955 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Crédit Suisse, Doc ID 6472.

2956 Eurex's response to the Commission's Phase II questionnaire to clearing competitors; Doc ID 6212.

with a CCP, this is generally about bringing existing OTC IRD products that are currently traded voice onto electronic venues rather than developing new products. If – based on customer feedback – Tradeweb believes there is sufficient demand, it would invest the time and cost to make that product tradeable on Tradeweb and, again, if there is customer demand, to work with CCPs to make that product clearable through a CCP via its platform. However, critically, these voice-traded products are, in almost all instances already clearable at a number of CCPs, and these CCPs were able to develop clearing for these products without any collaboration with Tradeweb."[2957] Internal documents of LCH SwapClear also make reference to this third step of the process (when trading venues work towards making electronically tradable a product which is already available for clearing), [commercial policy].[2958]

(2423) *Second*, the Commission considered to which extent each step of this lifecycle requires a cooperation between CCPs and trading venues in order to be successful.

(2424) Crucially indeed the third step of the lifecycle of a new product requires cooperation from the CCP. The Commission notes that the need for a cooperation between trading venue and CCP for the introduction of new products is acknowledged by the Notifying Party, as mentioned above (*"If – based on customer feedback – Tradeweb believes there is sufficient demand, it would invest the time and cost to make that product tradeable on Tradeweb and, again, if there is customer demand, to work with CCPs to make that product clearable through a CCP via its platform."*[2959]), as it is acknowledged by customers, such as Nomura International Plc on the sell-side: "*[…] CCPs and customers/market makers work with venues to add connections on venues where there is sufficient demand*."[2960] Consistently, even rival CCPs confirm the critical aspect of having a proper cooperation between the trading venue and the CCP to ensure that a given product is made available for trading. As explained by CME, "*It is important for CCPs to cooperate with trading venues for new OTC IRD products to ensure connectivity and support when the product is launched.*"[2961] Similarly, Eurex confirms that "*cooperation with trading venues is critical to have a complete clearing product offering and is necessary to reduce switching costs and ensure a level playing field with LCH's SwapClear.*"[2962]

(2425) *Third*, the Commission considered to which extent a CCP might have the discretion to decide not to cooperate in the course of the innovation process.

(2426) The results of the market investigation point at the fact that the decision to cooperate or not with a given trading venue in view of the introduction of a new product lies entirely with the CCP. Bloomberg, as a trading competitor, notes that *"Any OTC IRD product that is intended to be cleared would need full cooperation from a clearing house."*[2963] Consistent with this last statement, Eurex explains: *"Deutsche Börse considers that launching a new cleared OTC interest rate derivative product requires close cooperation between a trading venue, the relevant CCP and the potential customers for the new product. In terms of the intensity of cooperation needed*

2957 Response to the decision pursuant to Article 6(1)(c), paragraphs 201 and 202.

2958 ID 4188-17676

2959 Response to the decision pursuant to Article 6(1)(c), paragraph 201.

2960 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Nomura International Plc, Doc ID 6472.

2961 CME's response to the Commission's Phase II questionnaire to clearing competitors; Doc ID 5434.

2962 Eurex's response to the Commission's Phase II questionnaire to clearing competitors; Doc ID 6063.

2963 Question 24, Questionnaire 4 to trading venue competitors, response of Bloomberg, Doc ID 6475,

between a trading platform and the relevant CCP(s), this is likely to depend on the importance of clearing as a component of the overall product. However, where clearing is an important component, the trading platform will need work closely with the CCP over a period of months or more until launch. In particular, the CCP will need to begin the significant technical and regulatory work well in advance of launching the new product so that trading and clearing can begin simultaneously. It is for the CCP to assess the "clearability" of such a product, i.e. whether the CCP feels comfortable to risk manage the particular product. This is the sole decision of the CCP and therefore a venue cannot list any cleared product and impose an obligation on a CCP to clear such product."[2964] (emphasis added)

(2427) BME, another downstream (CCP) competitor confirms this view: "*In our opinion, it would be difficult for a venue to develop a new cleared product without the involvement or the cooperation of a CCP. There is a clear connection between a venue and a CCP. A new product developed by a venue will need a CCP so that this new product is cleared. In order to develop the cleared product the venue will need to work with the CCP so that: a) the CCP gets the product approval by its NCA and b) the CCP adapts it Risk and IT system so that it can clear the new product.*"[2965]

(2428) *Fourth*, the Commission investigated the role of CCPs in the innovation process beyond mere arm-length cooperation with trading venues.

(2429) In addition to cooperating with the trading venues, the market investigation provided evidence that the CCP plays an important coordinating role in this process. Citibank, a sell-side customer, submits that *"Our understanding is that CCPs would run working groups as appropriate as part of this process. This will relate to the ability to clear only. The market and industry working groups would consider tradability of products."*[2966] In a similar way, Barclays explains that *"Bilateral discussions occur between CCPs and customers, CCPs and venues, and venues and customers. The CCP generally acts as a central coordinator, and may set up workshops as required."* (emphasis added).[2967]

(2430) *Fifth*, the Commission considered the various means a CCP would have to delay or deprioritise a given collaboration with a given trading venue.

(2431) The market investigation has provided multiple indications that, in addition to its critical coordination role in the workflow leading to the introduction of a new product for clearing and ultimately for trading, a CCP might have concrete ways of delaying/deprioritizing a given project. Société Générale, a sell-side customer, explains that CCPs have the ability to set up their own priorities to this regard: *"CCPs are very good at engaging with all market participants to develop ideas for new functionality. Their ability to deliver depends on the CCP's priorities and investment decisions."*[2968] Upstream rivals at trading level also explain that a CCP integrated upstream with a trading venue would be in a position to choose to cooperate with this trading venue only in the context of the introduction of new products, and that such a scenario is not unlikely: Bloomberg states that *"When a*

2964 Question 21, Questionnaire 2 to CCP competitors, response of Eurex, Doc ID 6473.

2965 Question 21, Questionnaire 2 to CCP competitors, response of BME, Doc ID 6473.

2966 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Citibank, Doc ID 6472.

2967 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Barclays, Doc ID 6472.

2968 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Société Générale, Doc ID 6472.

clearing house is vertically integrated to a trading venue, it's reasonably possible for the clearing house to create a new product and register that product for clearing with only via the trading venue with which they are vertically integrated. As a result, market participants would be forced to trade and clear such a product in one place, eliminating the ability for natural competition to occur."[2969] Going further, Bloomberg also envisages in an hypothetical scenario the possibility that LCH SwapClear and Tradeweb work together in isolation of other trading venues with respect to the introduction of a new product, and LCH SwapClear only offers to cooperate with other trading venue at a later stage, once the product is already made available for trading and clearing at Tradeweb/LCH SwapClear, thus seemingly complying with LCH's internal open-access policy: *"For example, post-Transaction, LSEG/Refinitiv could create new joint products or services in isolation of other market providers. The delivery of these products or services will be tailored between the affiliates and only made accessible to other market providers in an "open access" model on day of launch. As such, the solutions that third parties provide, will likely be inferior and later to market than those of LSEG/Refinitiv. This would greatly harm the ability of other market providers to compete effectively and as such it is likely that Refinitiv would build an unassailable momentum and achieve customer lock-in."*[2970] Similarly, another of Tradeweb's rivals who requested anonymity complains that *"in all cases where a product is centrally cleared, cooperation from/with the CCP is a crucial element that is taken into account right from the inception. The CCP's overall responsiveness and attitude towards the cooperation request can make or break a new product. A CCP not cooperating, subtly delaying its responses, or continuously bringing up new hurdles related to IT requirements, operational or risk management considerations severely limits our ability to develop a new product."*[2971]

(2432) In perfect coherence with the above-mentioned concerns expressed by two rival trading venues, this ability for a CCP to refuse cooperation to a trading venue in the context of the introduction of a new product, or to delay this cooperation in order to favour a trading venue with which it is vertically integrated is also confirmed by a rival CCP such as Eurex, mentioning that: *"LCH SwapClear's discretion at the clearing layer whether or not to accommodate innovations at the trading layer could frustrate the trading venues efforts to introduce innovations. LCH SwapClear could also indirectly frustrate the success of a new product by requiring separate margin pools, preventing the trading venue from offering important efficiencies at the clearing layer. For example, if a trading venue sought to introduce trading of more complex instruments such as cleared swaptions, the commercial value proposition would depend on the ability of market participants to clear the product and take advantage of a single margin pool with other OTC IRD instruments. Furthermore, the merged firm could delay readiness of a new offering for Bloomberg or another trading venue. In parallel, the merged firm could prioritize investment in introducing a competing product at Tradeweb based on information received from the trading venue. Given the advantages for first movers in these markets, this could have a significant impact on the ability of the trading venue to successfully launch the*

2969 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.
2970 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.
2971 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

product."[2972] Eurex also explains more concisely that: *"cooperation between the trading venue and the CCP remains an important requirement for a trading venue to compete effectively going forward, irrespective of whether trades are processed directly or through MarkitWire. LCH could still refuse to invest technical resources or delay cooperation with a particular trading venue on areas of innovation, such as accommodating clearing of innovative new instruments traded on a particular trading venue to capture trading from the voice environment (e.g. cleared swaptions)."*[2973]

(2433) The Commission therefore considers that the cooperation between a CCP and a trading venue is crucial to the successful outcome of the process leading to making a new product available for electronic trading, and that a CCP would have concrete means to deny this cooperation to a trading venue or deprioritize a given project, thus causing meaningful harm to these venues.

(2434) *Sixth*, the Commission assessed the role of LCH SwapClear's internal processes as a potential limitation to LCH SwapClear's ability to deny its cooperation to a given trading venue in the context of the introduction of new products.

(2435) With respect to the Notifying Party's argument that new products to be cleared need to be approved by an internal committee (ERCO), which enjoys some degree of independence from LCH's executive management, the Commission observes that this fact would not in any case prevent LCH from refusing to cooperate with trading venues in order to enable them to trade products which are already available for clearing (and, in some cases, as suggested by the market investigation, have been so for many years). The Commission further notes that ERCO's mandatory approval for the introduction of new products for clearing does not necessarily mean that ERCO's approval is also mandatory for the rejection of a new product. In other words, it might very well be that the introduction of a new product is blocked within LCH at a different stage of the approval process (*i.e.* before or after the ERCO approval – in this later case the blocking could also occur in spite of the ERCO approval), and that ERCO, despite the relative independence it enjoys vis-à-vis LCH's executive management, would at any rate not have the possibility to prevent the rejection of a product.

(2436) LCH SwapClear's internal documents provide an idea of some of the different steps necessary for the approval of new products. One example is the case of the introduction of so-called SOFR[2974]/SONIA[2975] cross-currency swaps (SOFR/SONIA "xccy" (cross-currency) swaps). [Commercial policy],[2976] [commercial policy],[2977] [commercial policy],[2978] [commercial policy].[2979] [Commercial policy],[2980] [commercial policy].[2981] This brief and partial overview evidences the facts that (i) any new product would need to go through a number of internal validation steps and

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2972 Eurex's response to Question 12 of the Commission's Phase II questionnaire to clearing competitors; Doc ID 6212.

2973 Eurex's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6529.

2974 Secured overnight financing rate – a benchmark interest rate for dollar.

2975 Sterling overnight index average – the reference benchmark for OIS in GBP.

2976 ID4697-82665

2977 ID4697-21824

2978 ID4697-67653

2979 ID4698-25294

2980 ID4697-26584

2981 ID4697-94815

committees beside ERCO before being approved and (ii) it is very possible that some of these steps be delayed at some point of the process.

(2437) LCH SwapClear's internal documents provide further information about the conditions to be met in order to approve a new trade source for a product already available for clearing at LCH SwapClear. [Commercial policy].[2982] This confirms the Notifying Party's argument that ERCO approval is needed for the approval of a new trade source for a product which is already available for clearing at LCH SwapClear; but it also evidences the fact that this is not a sufficient condition to be met, and that the approval of a new trade source for a product that LCH SwapClear already clears requires additional conditions ([Commercial policy]), which could lead to a rejection of the demand despite ERCO's approval. Moreover, as regards the mandatory notification to the Risk Committee and Board of any ERCO approval for a new trade source (for an existing product already available for clearing at LCH SwapClear), the Commission notes that it is at best unclear whether this mandatory notification is followed by any discretionary powers that the Risk Committee and Board might have in relation to the approval of these new trade sources.

(2438) The Commission also notes that the Notifying Party's argument that new products need to be approved by ERCO, the relative independence of which vis-à-vis LCH's board would guarantee that no foreclosure strategy could be applied at clearing level in relation to the introduction of new products, was also dispelled, for similar reasons in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*. In particular, while acknowledging the fact that in order to be approved, new products would be required to go through LCH's multi-layered decision making process, the Commission also considered: "*the final decision lies with LCH.Clearnet's CEO or relevant CCP CEO under delegated authority or with the LCH.Clearnet Board for board reserved matters. Given that LCH.Clearnet's CEO is appointed by LSEG and directly reports to LSEG's CEO while LSEG group's CCP CEO's report to LCH.Clearnet's CEO, it is plausible that LSEG is in a position to influence such decisions.*" [2983]

(2439) *Seventh*, the Commission considered to which extent other CCPs would be in the position to collaborate with Tradeweb's rivals in order to allow them to bring new products to the market without requiring LCH SwapClear's cooperation.

(2440) With respect to the Notifying Party's argument that rival CCPs such as Eurex and CMEs would be in a position to collaborate with rivals of Tradeweb such as Bloomberg to bring these innovations to the market, the Commission considers that the possibility that rivals of Tradeweb upstream collaborate with rivals of LCH SwapClear downstream in order to counteract any form of potential customer foreclosure strategy was strongly contradicted by the Commission's market investigation (see Section 4.5.36.1.B.1.4. below for a complete assessment of these potential counter-strategies). However, the Commission considers that in the context of innovation foreclosure, it is not even needed to conclude on this specific point, given the fact that the vast majority (80%) of customers mentioned in the market investigation that in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP, they would most likely switch their OTC IRD trading to a different trading venue offering those new

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2982 ID4188-17676

2983 Commission decision of 29 March 2017 in Case M.7995 – Deutsche Börse/London Stock Exchange Group, paragraph 871 of the original version (paragraph 870 of the non-confidential version).

products for trading and clearing in their preferred CCP.[2984] In light of this, it is apparent that for any customer whose favourite CCP is LCH SwapClear (that is to say over 90% of the market) and trading with a trading venue which is not Tradeweb, not having the possibility to trade new OTC IRD products on their usual trading venue and to clear them on LCH SwapClear would in 80% of cases make this customer switch trading venue, irrespective of whether the same new product is available for trading at the customers' usual trading venue and clearing at a rival CCP, such as Eurex or CME. The ability of upstream and downstream rivals of the Parties to cooperate for the introduction of the same (or similar) products for trading and clearing does not enter into consideration into the Commission's assessment of the combined entity's (i) ability and (ii) incentive to prevent new products from being cleared on rival trading venues, or (iii) the effects of such a potential foreclosure scenario, as the Commission's reasoning will not require any hypothesis in one way or the other with respect to the ability of upstream and downstream rivals of the Parties to cooperate for the introduction of the same (or similar) products for trading and clearing in order to assess these three points.

(2441) As regards the Notifying Party's argument that with respect to innovation, while there is communication between the CCP and trading venues, there is no collaboration, the Commission considers that (i) the Commission's market investigation revealed that the collaboration between trading venues and CCPs with respect to the introduction of new products goes well beyond the mere sharing of information, that CCPs play a critical role in it, and that "*The CCP generally acts as a central coordinator, and may set up workshops as required.*",[2985] and (ii) that even if CCP's action was limited to information sharing, the distinction between cooperating and sharing information is essentially a semantic one, since, for example, a CCP could refuse to cooperate by not sharing the relevant information or not sharing it on time (*i.e.* at the same time when Tradeweb received it in the case at hand).

(2442) As regards the Notifying Party's argument that other CCPs are already able as of today to successfully launch new products and innovations that are either not available on LCH SwapClear or have only become available on LCH SwapClear later (such as the MXN-denominated IRDs cleared by CME) so that nothing would prevent them from engaging in a cooperation with Tradeweb's rivals in the event that these rivals would be subject to a denial of LCH SwapClear's cooperation in relation to the introduction of new products, the Commission finds that it does not preclude the fact that "*In case new OTC IRD products were not available for trading on [their] usual trading venue and clearing at [their] preferred CCP",* 80% of customers *"would most likely switch [their] OTC IRD trading to a different trading venue offering those new products for trading and clearing in [their] preferred CCP*".[2986] The fact that the vast majority of customers would be willing to switch trading venue to continue to be able to clear products in their preferred CCP is at the core of the Commission's incentives analysis in respect to the innovation foreclosure theory of harm, and the fact that other trading venues could collaborate with other CCP (but not the customers' preferred one) in the context of the introduction of new products has no bearing on it.

2984 Question 26, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

2985 Question 43.1, Questionnaire 21 to OTC IRD trading and clearing customers, response of Barclays, Doc ID 6472.

2986 Question 26, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

(2443) *Finally*, the Commission observes that past behaviour of LSEG[2987] supports the view that a CCP is able to set margin requirements for new products at its discretion and/or significantly delay the introduction of a new product (in this case by one year).[2988]

(2444) The Commission therefore considers that, post-Transaction, the combined entity would have the ability to partially foreclose upstream rivals by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new products. As the mechanisms through which the combined entity would partially foreclose upstream rivals by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new products would be applicable in the exact same way to the clearing of all types of OTC IRD contracts denominated in all currencies, this conclusion holds true irrespective of whether the CCP clearing of OTC IRDs is considered a separate product market, or is segmented by type of OTC IRD contract or currencies.

(2445) In conclusion, the Commission considers, based on the market investigation and the evidence available to it, that post-Transaction, LCH SwapClear will have the ability to discourage customers to trade on rival trading venues, leading to lower trading volumes and lower profitability. Hence, the combined entity would have the ability to increase rival trading venues' costs which would reduce their ability to compete and eventually likely lead to higher prices for customers.[2989] As the foreclosure mechanisms described in this section apply in the exact same way to the clearing of all types of OTC IRD contracts denominated in all currencies, this conclusion holds true irrespective of whether the CCP clearing of OTC IRDs is considered a separate product market, or is segmented by type of OTC IRD contract or currency.

B.1.4. Counter-strategies would not be effective

(2446) In accordance with the Non-Horizontal Merger Guidelines, "*In its assessment, the Commission will consider, on the basis of the information available, whether there are effective and timely counter-strategies, sustainable over time, that the rival firms would be likely to deploy*".[2990] In the course of its in-depth investigation, the Commission therefore assessed whether the combined entity's competitors (in the upstream market for OTC IRD trading services) could engage in effective and timely counter-strategies. The results of the market investigation indicate that rival trading venues would lack any form of credible counter-strategies. As summarised by Bloomberg: "*Bloomberg has no credible counter-strategies to those foreclosure strategies that a merged LSEG/Refinitiv entity would be able, and be incentivised, to use.*"[2991] Another trading competitor who requested anonymity submits: "*We do not think we would be able to take any action to counteract a potential foreclosure strategy by the merged entity.*"[2992]

(2447) *First*, the Commission assessed whether rival trading venues would be able to reduce prices to counter any foreclosure strategies.

2987 Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 873.

2988 Commission decision of 29 March 2017 in Case M.7995 – *Deutsche Börse/London Stock Exchange Group*, paragraph 876.

2989 Non-Horizontal Merger Guidelines, paragraph 58.

2990 Non-Horizontal Merger Guidelines, paragraph 67.

2991 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.

2992 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

(2448) As a first step, the Commission assessed whether rivals could effectively and timely counter a price-based foreclosure strategy by reducing their own prices. In theory, a counter-strategy that rival trading venues could carry is to reduce their trading fees for trades cleared with LCH SwapClear proportionally to the increase of clearing costs imposed by LCH SwapClear on the trades executed outside of Tradeweb's trading venues. By doing so, they could in theory maintain the overall costs of trading and clearing with Tradeweb's rivals and LCH SwapClear at the same level as the costs of trading and clearing with Tradeweb and LCH SwapClear.

(2449) Firstly, the Commission considers that the Notifying Party's argument that Bloomberg could act in such a way as to inject funding at loss in its OTC IRD trading business so as to defeat a potential customer foreclosure strategy from the combined entity cannot be sustained, because such behaviours would be economically unviable. In addition, the Commission notes that, based on the feedback received from Bloomberg, the sustainability and viability of Bloomberg's OTC IRD trading venue would be severely affected by any of the Foreclosing Strategies given the network effects characterising the trading of OTC IRDs. More specifically, Bloomberg explains that it *"would expect that a significant decline in utilization of its OTC IRD trading venues, on the order of say, 50%, and the related decline in liquidity would reduce significantly our competitiveness as a trading venue. Incentives to invest would also decline. We would expect remaining liquidity gradually to shift away from our venues in favour of venues which could offer deeper liquidity (and potentially better bid/offer spreads). Over time, our trading platform for OTC IRDs would become unsustainable."*[2993]

(2450) Secondly, as a subsidiary element, the Commission notes that such a counter strategy would not be sustainable for other rivals of Tradeweb that would invoice trading services individually. Indeed, the need to compensate an increase of the clearing costs of 5-10% only by a symmetric fee decrease offered to customers at trading level would already have a very large impact of the profit of rival trading venues that would invoice trading services individually. For instance, when looking at the membership fees (which represent only a fragment of the total clearing costs as explained in recital (2456)), rival trading venues would have to decrease their annual trading fees per client by (i) GBP 0.05 million for LCH's SwapClear Bronze members, (ii) GBP 0.15 million for LCH's SwapClear Silver members, (iii) GBP 0.225 million for LCH's SwapClear Gold members, and (iv) GBP 0.29 million for LCH's SwapClear Platinum members. Given the fact that all membership fees represent less than [a significant percentage] of all clearing and compression fees collected by SwapClear (as explained in recital (2456)), the amount that rival trading venues would have to compensate per client would be significantly higher.[2994] As such, a counter-strategy based on price (whereby rival trading venues would compensate the increase of clearing cost applied to their trades by implementing a symmetric decrease in the fees applied to customers at trading level) would not be economically sustainable for the trading venues.

(2451) As a second step, the Commission assessed whether rivals could effectively and timely counter non price-based foreclosure strategies (i.e. a refusal to clear, a

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2993 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.

2994 For completeness, based on the figures provided in Figure 37, a 10% increase of LCH SwapClear's total income (excluding net treasury income and net IBA and other) would correspond to an increase of GBP […], which would have to be compensated by rival trading venues in proportion of the trades that they execute and that are cleared with LCH SwapClear.

technical foreclosure strategy, and an innovation foreclosure strategy) by reducing their own prices.

(2452) Firstly, the Commission's in-depth investigation reveals that such counter-foreclosure would not be possible for Bloomberg, which is Tradeweb's main and closest competitor, for the reasons set out in recital (2515) above. As a consequence, given that Bloomberg does not price OTC IRD trading services individually, it would not be in a position to decrease its price for OTC IRD trades executed with LCH SwapClear to counter a foreclosure strategy of the combined entity, including non-price-based strategies.

(2453) Secondly, the Commission's in-depth investigation indicates that such counter-strategy would not be possible for other rivals of Tradeweb that invoice trading fees individually. Indeed, the Commission's market investigation shows that trading customers are not very sensitive to the cost of trading. Asked which criteria has the most important influence when choosing an electronic trading venue for OTC IRD, buy-side customers ranked "*trading fees*" as second to last criterion.[2995] Buy-side customer ranked, by order of importance, (i) incentive scheme of CCP, (ii) incentive scheme of trading venue, (iii) number of buy-side active on a venue, (iv) venues connection to specific CCPs, (v) trading functionalities/features, trade reporting, (vi) size of trade (notional), and (vii) service/support/relationships as criteria more important than the trading fees.[2996] In addition, sell-side customers' responses to a similar question evidence that trading fees are also not an important criteria for dealers.[2997] As a subsidiary element, the fact that price is not a very important parameter of competition is also confirmed by the switching figures presented in recital (2526)ff below (where it can be observed that the switching figures are materially lower for a price-based foreclosure strategy than for non-price based foreclosure strategies). While these switching figures relate to the switching of customers at clearing level, not at trading level, the Commission considers that they provide an indication of customers' general price-sensitivity in light of the fact that customers assess the price of trading and clearing simultaneously.

(2454) *Second*, the Commission assessed whether rival trading venues would be able to defeat the Customer foreclosure strategies by engaging in closer collaboration with others LCH SwapClear's clearing competitors such as Eurex and CME.

(2455) In this regard, the Commission considers that a partnership between trading venues of Tradeweb's rivals and LCH SwapClear's rival clearing houses would not be effective. This is because such partnerships would not allow customers to clear at LCH SwapClear, which is precisely the reason why customers would switch Tradeweb in the event that one of the Customer foreclosure strategies was put in place. As explained in details in Section 4.5.36.1.B.1.1. above, LCH SwapClear is a dominant player in CCP clearing of OTC IRDs and a large majority of customers consider it crucial to clear their trades with LCH SwapClear. In addition, the feedback received during the market investigation generally contends that a partnering with LCH SwapClear's rival would not effectively counter the Customer foreclosure strategies. By way of example, Bloomberg underlines that "*The economic pull of clearing swaps and IRDs on LCH is simply too strong.* […] *IRD trading customers would have no option but to switch to a venue with connectivity to*

2995 Question 19, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470.

2996 Question 19, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470

2997 Question 18, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

LCH. […] *the liquidity taker and liquidity makers typically drive clearing house selection."*[2998] In addition, Bloomberg explains that "*Bloomberg does currently offer connectivity to CME and Eurex, although the majority of customers* ([CONFIDENTIAL]) *clear through LCH. Customers prefer to use their incumbent CCP due to the significant costs and challenges of novating portfolios* […]. *Post-Transaction, in the event, that LCH was no longer available to the market generally, our expectation is that these swap participants would be forced to execute through the only venue offering that service, Tradeweb and that any counter-offering of Bloomberg and another CCP would not be competitive.*"[2999] Regarding more specifically a refusal to clear, Bloomberg explains that it "*would have no credible counter-strategy if LCH were to begin to offer its clearing services only to participants who trade on Refinitiv venues. As previously communicated, the majority of IRS participants clear their swaps at LCH. If LCH connectivity were no longer available to Bloomberg's venues, there is no equally attractive or even credible rival option that Bloomberg could offer/pursue.* […] *Bloomberg would also have no credible counter-strategy to foreclosure strategies that stop short of the creation of a full vertical silo*."[3000] Similarly, a trading competitor who requested anonymity states: *"No, we do not think we would be able to cooperate with Eurex, CME or another CCP in order to counteract a foreclosure strategy by the merged entity."*[3001] Only TPICAP, which is not a main competitor of Tradeweb, briefly mentions the possibility that they could envisage to *"cooperate with customers to direct to alternate clearer"*, without mentioning any further details.[3002]

(2456) *Third*, as a subsidiary element, the Commission notes that trading venues could not prevent any of the Customer foreclosure strategies by threatening retaliation against LCH SwapClear. This is because of the asymmetric relationship between trading venues and LCH SwapClear, coming from the fact that (i) LCH SwapClear's market share downstream is such that all trading venues rely heavily on its clearing services, while LCH SwapClear is very far from relying in similar proportions on trading feeds coming from any trading venue and (ii) switching CCP is so much more costly and lengthy and complicated that switching trading venue. The feedback of rival trading venues confirmed their inability to retaliate effectively. Bloomberg submits that "*LSEG/Refinitiv's commercial dependency on Bloomberg is not as important, in relative terms, as Bloomberg's commercial dependency on LCH. On that basis any strategy by Bloomberg to withhold commercial services would not have sufficient deterrent effect.*"[3003] Another trading competitor who requested anonymity explains as well, consistent with the Commission's analysis regarding the obstacles to switch in Section 4.5.36.1.B.1.1.6. above: "*Our relationship with the clearinghouse is therefore highly asymmetric.* […] *our clients are also unable to switch CCP for a given OTC IRD product without incurring significant costs (due to loss of netting efficiencies) which puts us at a significant competitive disadvantage to venues that do have unfettered access to the CCP.*"[3004]

2998 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.
2999 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.
3000 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.
3001 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.
3002 TPICAP's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5510.
3003 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.
3004 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

(2457) As a result, the Commission considers that the combined entity's competitors (in the upstream market for OTC IRD trading services) would lack effective and timely counter-strategies that could be successfully implemented in order to counter any of the Customer foreclosure strategies.

(2458) In light of the above and the evidence available to it, the Commission therefore considers that the combined entity will have the ability to engage in the Customer foreclosure strategies.

B.2. Incentive to engage in customer foreclosure

(2459) The Commission considers that the combined entity will have an incentive to engage in any of the Customer foreclosure strategies in the provision of trading and clearing services for OTC IRD contracts, which would be profitable to the combined entity overall. In accordance with the Non-Horizontal Merger Guidelines, the incentive to foreclose access to downstream markets depends on the degree to which this foreclosure strategy is profitable.[3005] In particular, when considering incentives, and the degree to which foreclosure would be profitable, the Commission notably assesses the trade-off for the combined entity between (i) the losses incurred downstream as a result of the foreclosure strategy and (ii) the gains achieved upstream as a result of the foreclosure strategy.[3006]

(2460) In order to assess whether, in the present case, the combined entity would have incentives post-Transaction to leverage its market power downstream (in the provision of clearing services for OTC IRD contracts), to gain profits upstream (in the provision of trading services for OTC IRD contracts), the Commission evaluates (i) the losses that the combined entity (via LCH SwapClear) would incur downstream (in the clearing of OTC IRD contracts) from the foreclosure scenarios and (ii) the gains that the combined entity (through Tradeweb) would achieve upstream (in the trading of OTC IRD contracts) as a result of the Customer foreclosure strategies :

(a) The losses that the combined entity would incur downstream (in the clearing services of OTC IRD contracts) from the Customer foreclosure strategies depend on the proportion of clearing customers that will switch away from LCH SwapClear in case:

(1) LCH SwapClear's customers can no longer (permanently) clear at LCH SwapClear D2C trades executed on trading venues of Tradeweb's rivals (total foreclosure of on-venue trades) and trades executed via middleware providers such as MarkitWire (total foreclosure of on- and off-venue trades);

(2) LCH SwapClear's customers cannot (temporarily) clear at LCH SwapClear D2C trades executed on trading venues of Tradeweb's rivals for technical reasons (technical foreclosure strategies) or cannot trade certain new products at trading venues of Tradeweb's rivals and clear them at LCH SwapClear as a result of the absence of a cooperation between LCH SwapClear and trading venues of Tradeweb's rivals (innovation foreclosure strategies); and/or

(3) when trading D2C trades on trading venues of Tradeweb's rivals and clearing with LCH SwapClear, the cost of clearing would be increased

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3005 Non-Horizontal Merger Guidelines, paragraph 68.

3006 Non-Horizontal Merger Guidelines, paragraph 68.

(price-based foreclosure strategies), the quality would be degraded (technical foreclosure strategies), or the choice of contracts to trade and clear would be reduced (innovation foreclosure strategies).

(4) The gains that the combined entity would achieve upstream (in the D2C trading of OTC IRD contracts) as a result the foreclosure scenarios would depend on the proportion of trading customers that will switch to Tradeweb in case:

(b) LCH SwapClear's customers can no longer (permanently) clear at LCH SwapClear D2C trades executed on trading venues of Tradeweb's rivals (total foreclosure of on-venue trades) and trades executed via middleware providers such as MarkitWire (total foreclosure of on- and off-venue trades); and/or

(c) LCH SwapClear's customers cannot (temporarily) clear at LCH SwapClear D2C trades executed on trading venues of Tradeweb's rivals for technical reasons (technical foreclosure strategies) or cannot trade certain new products at trading venues of Tradeweb's rivals and clear them at LCH SwapClear as a result of the absence of a cooperation between LCH SwapClear and trading venues of Tradeweb's rivals (innovation foreclosure strategies).

(d) when trading D2C trades on trading venues of Tradeweb's rivals and clearing with LCH SwapClear, the cost of clearing would be increased (price-based foreclosure strategies), the quality would be degraded (technical foreclosure strategies), or the choice of contracts to trade and clear would be reduced (innovation foreclosure strategies).[3007]

B.2.1. Customers' switching patterns

(2461) In order to assess the post-Transaction market behaviour of the Notifying Party's end-customers in case the combined entity would engage in the Customer foreclosure strategies, the Commission reached out to market participants. Particularly, the Commission conducted a survey among end-customers to assess, analyse and quantify how end-customers would behave upon foreclosure of LCH SwapClear. The Commission used the results of this survey to quantify the likely actual switching rates of end-customers (in case the combined entity would engage any of the Customer foreclosure strategies post-Transaction). As explained below in the present section, the actual switching rates are used as a benchmark against the critical switching rate, which quantifies if and when the combined entity would have incentives to pursue a Customer foreclosure strategy.

(2462) During the course of its in-depth investigation, the Commission sent four questionnaires directed at end-customers of OTC IRD trading and clearing services, namely two questionnaires during the first phase (Phase I of the proceedings)[3008] and two other questionnaires during the second phase (Phase II of the proceedings).[3009] These questionnaires contained questions about what would be the likely post-Transaction conduct of end-customers in case LCH SwapClear engaged in customer foreclosure strategies. The questionnaires were sent out to 128 end-customers of the

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3007 In case of a price-based foreclosure strategy, the combined entity will also generate gains as a result of the increase in price of the clearing services delivered to customers of the trading venues of Tradeweb's rivals.

3008 Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470 and Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

3009 Question 2.1, Questionnaire 22 to OTC IRD customers, Doc ID 6679. Question 6.1, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

Notifying Party's clearing services, based on contact details that were provided by the Notifying Party.[3010]

(2463) Overall, 52 end-customers replied to the questions of trading/clearing markets. The Commission considers the response rate as sufficient to draw conclusions about likely post-merger conduct of end-customers.

(2464) The questionnaires inquired about the post-Transaction behaviour of end-customers, separately for a total foreclosure, price-based partial foreclosure, technical deterioration, and the availability of new products (innovation). Therefore, the Commission can identify different behaviour for different foreclosure strategies.

(2465) Further, the questionnaires included questions that aimed to inquire the sensitivity of the responses. For example, in the context of OTC IRD trading/clearing, the Commission asked "*Which steps would your company need to take in general to switch trading venue for OTC IRDs for most or all of your OTC IRD trading?*"[3011], and thus inquired about the cost of switching[3012] and the reasons to switch in an open question[3013].

(2466) As described above, the Commission gave respondents plenty of room to express their opinion and to nuance their answers on their likely post-Transaction behaviour in case of a customer foreclosure strategy. In fact, when designing the questionnaires in the phase II investigation, the Commission took into account comments from the Notifying Party made in response to the decision pursuant to Article 6(1)(c) in this regard. Therefore, the Commission rejects the claim of the Notifying Party in response to the SO that the questionnaires were "*poorly designed and potentially leading set questions*"[3014].

(2467) The Notifying Party further criticised that the set of end-customers are a "*very small and highly unrepresentative sample of the Parties' customer base*"[3015]. The Commission rejects the submission for the following reasons.

(2468) First, the Commission notes that the calculated switching rates (or rates of end-customers adding a downstream service) is based on a sufficient sample of customers. The Commission counts for the link of OTC IRD trading and clearing 52 informative respondents.[3016] The Commission considers the number of responses as sufficient to draw conclusions about likely post-merger conduct.

(2469) Second, regarding the claim that the sample is unrepresentative, in fact, the contact details of the market participants were collected by the Notifying Party after long exchanges with the Commission[3017] over the contact details to be provided.[3018] In particular, the Notifying Party provided contact details of end-customers by revenue,

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3010 See discussion below and M.9564_IS_Annex_209_Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

3011 Question 8, Questionnaire 21 to OTC IRD trading and clearing customers.

3012 Question 10, Questionnaire 21 to OTC IRD trading and clearing customers.

3013 Question 11, Questionnaire 21 to OTC IRD trading and clearing customers.

3014 Response to the SO, Information Services, Annex 1.

3015 Response to the SO, Information Services, Annex 1.

3016 Questions 25, 26 and 28, Questionnaire 21 to OTC IRD trading and clearing customers.

3017 Contact details first requested by the Commission in Question 5 of the Request for Information dated 16 October 2019 (RFI 1) and subsequently in Question 3 of the RFI dated 13 November 2019 (RFI 3), Question 10 of the RFI dated 27 November 2019 (RFI 4), Question 2 of the RFI dated 28 January 2020 (RFI 8), Questions 1 to 5 of the RFI dated 30 March 2020 (RFI 12), and Questions 13 and 21 to 27 of the RFI dated 27 April 2020 (RFI 13).

3018 M.9564_IS_Annex_209_Contact details methodology, Form CO, IS Annex 209, updated 12 May 2020.

by segment (business activity of end-customer), and by customer tier (according to size of turnover). The approach is considerably more granular than what the template of the Form CO suggests and, therefore, the outcome is considered by the Commission as an appropriate and representative sample.

(2470) The Commission notes that even with an error margin (for example, of 10%) the estimated critical switching rates are lower than the likely actual switching rates from the questionnaires.

(2471) The Commission concludes that, absent any other evidence on switching rates, for example, submitted by the Notifying Party, it relies on the switching rates from the market investigation to assess the likely post-merger behaviour of end-customers.

(2472) In order to assess whether the combined entity will have the incentive to engage in total/partial customer foreclosure of OTC IRD trading venues, the Commission assessed the customers' switching trends. The Commission's analysis of the customers' switching figures collected in the course of the market investigation has led to the conclusion that the Customer foreclosure strategies (described in recital (2234)) will likely be profitable for the combined entity, and that the combined entity will thus have incentives to engage in these strategies.

(2473) *First*, the feedback from the market investigation generally indicates that, as already set out in more detail in Section 4.5.36.1.B.1.1.6 above, (i) customers consider switching trading venues easier than switching CCPs and (ii) LCH is considered as the only possible CCP for many customers. For example, Société Générale, a sell-side customer, states: *"Our preferred CCP is LCH. It still is the main CCP in the EEA and the largest for the €. When trading with clients we will use the CCP they wish. In the interbank market the default CCP is still LCH by far. We can also use Eurex. There is however still a very significant gap between LCH and Eurex. The basis between the two CCPS clearly shows the fact that paying/receiving interest are not well balanced yet at Eurex."*[3019]

(2474) *Second*, the strong trend to switching trading venue upstream rather that switching CCP downstream is likely to be enhanced by (i) network effects in the upstream market for the provision of D2C OTC IRD trading services and (ii) best execution rules established in MiFID.

(a) Network effects at trading level stem from the fact that, all else equal, the more market participants trade on the same venue, the higher the liquidity, resulting in lower bid-ask spreads (and lower execution costs) for customers. A second network effect is related to the cost structure of trading venues, where important fixed costs are diluted among a number of customers, while variable costs are low, so that when the number of customers trading on a given trading venue decreases, the costs of execution are likely to increase mechanically.

(b) In addition, best execution rules established in MiFID require investment firms executing orders on behalf of clients to execute a trade obtaining "*the best possible result*" taking into account trading and clearing costs.[3020] Hence, as they need to demonstrate to clients that they comply with best execution rules, investment firms would likely be obliged to move their D2C trading to Tradeweb in response to (i) clearing becoming more expensive at LCH when

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3019 Question 29.1, Questionnaire 1 to OTC IRD buy-side customers, response of Société Générale, Doc ID 6470.

3020 Art. 27 (1), MiFID.

trades are executed on rival trading venues, and (ii) trading becoming more expensive on trading venues of Tradeweb's rivals, as a result of network effects, in case other market participants have already started switching.

(2475) *Third*, when asked what would be their reaction in case of a deterioration of connectivity between a trading venue and their preferred CCP, 72% of customers (82% of buy-side customers and 56% of sell-side customers) indicate that they would most likely switch their OTC IRD trading to a different trading venue with better connection to their preferred CCP.[3021] In addition, when asked what would be their reaction in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP, no customer answered that they would stay with the same trading venue and switch CCP. 63% of the customers indicated that they would switch trading venue, 3% of the customers explained that they would remain with the trading venue and their preferred CCP, and 35% of the customers would try to negotiate or retaliate to counter the deterioration of connectivity.[3022]

(2476) *Fourth*, when asked what would be their reaction in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP, 80% of customers (83% of buy-side customers and 76% of sell-side customers) indicate that they would most likely switch their OTC IRD trading to a different trading venue offering those new products for trading and clearing in their preferred CCP.[3023]

(2477) *Fifth*, when asked what would be their reaction in case clearing costs increased by 5-10% as a result of trading OTC IRDs on their usual trading venue and clearing in their preferred CCP, 59% of customers (73% of buy-side customers and 38% of sell-side customers) indicate that they would most likely switch their OTC IRD trading to a different trading venue where clearing costs remained lower when clearing in their preferred CCP.[3024]

(2478) *Sixth*, when asked what would be their reaction in case LCH SwapClear was no longer connected to OTC IRD trading venues except Tradeweb and Dealerweb, 75% of customers indicate that they would continue to clear with LCH SwapClear in a similar proportion but would switch their electronic trades towards Tradeweb and/or Dealerweb.[3025]

(2479) *Seventh*, as regards the Notifying Party's argument in its response to the SO that the switching rates obtained by the Commission in the course of its market investigation are flawed because the Commission did not survey those customers that would be the target of the hypothetical customer foreclosure (*i.e.* Bloomberg customers), and failed to consider that switching between Bloomberg and Tradeweb is asymmetric as almost all market participants are already connected to Bloomberg due to Bloomberg's extensive product offering beyond OTC IRDs, the Commission considers that this argument is not of a nature to materially change the Commission's conclusions, for the reasons set out below:

(2480) Firstly, the vast majority of OTC IRD trading customers are connected to both Bloomberg and Tradeweb: 91% of respondents indeed indicate that they are already

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3021 Question 25, Questionnaire 21 to OTC IRD customers, Doc ID 6472.
3022 Question 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472.
3023 Question 26, Questionnaire 21 to OTC IRD customers, Doc ID 6472.
3024 Question 28, Questionnaire 21 to OTC IRD customers, Doc ID 6472.
3025 Question 1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

connected to both Bloomberg and Tradeweb.[3026] For completeness, the Commission notes that the questionnaires on which the Commission relies for these findings have been sent the questionnaires to both (i) Tradeweb's and (ii) LCH SwapClear's top customers.

(2481) The fact that the vast majority of OTC IRD trading customers are already connected to both Bloomberg and Tradeweb is a consequence of the best execution obligation of dealers. To satisfy this obligation, dealers (the sell-side) have to be connected to the main trading venues (i.e. Tradeweb and Bloomberg) to do D2C trading. Some clients (the buy-side) may not be connected to both platforms, but they may access both Tradeweb and Bloomberg through their dealer banks.

(2482) Secondly, the Notifying Party's claim that there is a meaningful difference in the difficulty to switch in one direction as opposed to the other was not reported by any market participants during the investigation. No customer (or trading venue) indicated that switching from Bloomberg to Tradeweb was more difficult, or that customers would switch less from Bloomberg to Tradeweb than the reverse.

(2483) Thirdly, the Commission verified what would be the switching rates if the response of the customers who did not indicate that they trade OTC IRDs on Bloomberg were excluded. In practice, the Commission was able to derive a list of customers who use Bloomberg for the trading of OTC IRDs by looking in particular at the responses to several questions asked in the course of the market investigation regarding customers' trading habits.[3027] When looking only at customers that trade OTC IRDs on Bloomberg, the switching rates are similar to the ones provided above. When asked what would be their reaction in case of a deterioration of connectivity between a trading venue and their preferred CCP, 64% of customers who trade OTC IRDs on Bloomberg indicate that they would most likely switch their OTC IRD trading to a different trading venue with better connection to their preferred CCP.[3028] In addition, when asked what would be their reaction in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP, no customer trading OTC IRDs on Bloomberg answered that they would stay with the same trading venue and switch CCP. 58% of the customers who trade OTC IRDs on Bloomberg indicated that they would switch trading venue, 0% of the customers who trade OTC IRDs on Bloomberg explained that they would remain with the trading venue and their preferred CCP, and 38% of the customers who trade OTC IRDs on Bloomberg would try to negotiate or retaliate to counter the deterioration of connectivity.[3029] When asked what would be their reaction in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP, 78% of customers who trade OTC IRDs on Bloomberg indicate that they would most likely switch their OTC IRD trading to a different trading venue offering those new products for trading and clearing in their preferred CCP.[3030] When asked what would be their reaction in case clearing costs increased by 5-10% as a result of trading OTC IRDs on their usual trading venue and clearing in their preferred CCP, 44% of customers who trade OTC IRDs on Bloomberg indicate that

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3026 Question 7, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3027 Namely Question 7, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470; Question 7, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474 and Questions 7, 7.1 and 7.3 of Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3028 Question 25, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3029 Question 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3030 Question 26, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

they would most likely switch their OTC IRD trading to a different trading venue where clearing costs remained lower when clearing in their preferred CCP.[3031] When asked what would be their reaction in case LCH SwapClear was no longer connected to OTC IRD trading venues except Tradeweb and Dealerweb, 58% of customers who trade OTC IRDs on Bloomberg indicate that they would continue to clear with LCH SwapClear in a similar proportion but would switch their electronic trades towards Tradeweb and/or Dealerweb.[3032]

(2484) In addition, for completeness, the Commission considers that given Tradeweb's importance in electronic D2C trading ([60-70]% market share at global level), it is very likely that the majority of electronic OTC IRD customers are already connected to Tradeweb, thus rendering the Notifying Party's argument about the asymmetry of switching partly hardly relevant. More precisely, the Commission considers that customers active in electronic D2C OTC IRD trading that would be connected to Bloomberg but not to Tradeweb are likely to be (i) very few and (ii) very small. For instance, all SwapClear banks, which together account for almost [a very high percentage] of LCH SwapClear's cleared volumes[3033] (LCH SwapClear representing in turn [a very high percentage] of the OTC IRD clearing market) are connected to Tradeweb. As such, [a high percentage] of the market ([a very high percentage] of [a very high percentage]) stems from market participants who are already connected to both Bloomberg and Tradeweb, and therefore cannot possibly experience the "*asymmetry of switching*" between Tradeweb and Bloomberg described by the Notifying Party. This is also confirmed by the fact that the Phase II questionnaires[3034] were sent to both (i) top customers of Tradeweb and (ii) top customers of LCH (irrespective of whether these later customers of LCH SwapClear are customers of Tradeweb or not). Obviously, the two lists were not exactly identical. If being a customer of Tradeweb was an uncommon feature of the OTC IRD trading market, or if there were some non-negligible customers of this market who are not connected to Tradeweb, one would have expected to find them among the members of the second list that are not in the first one. However, the market investigation yielded no indication of the existence of such customer. In particular, to the question "*Is your company a customer of Tradeweb's OTC IRD trading venue and does it use Bloomberg terminals*"[3035], among the 8% of customers that replied "No" or "I don't know" (4 customers in total), none indicated that it was because they did not use Tradeweb.

(2485) Moreover, the context of the investigation,[3036] as well as the very meaning of the questions made extremely clear to customers that the purpose of the questions were to investigate potential customer foreclosure risks arising from the Transaction, and that therefore the aim of these questions was to assess to which extent the combined entity might benefit at upstream level from a potential denial or degradation of access at downstream level. As such, there was no ambiguity as to the fact that the potential trading patterns envisaged in this question were from Bloomberg (or other upstream trading venues) to Tradeweb rather than the opposite.

3031 Question 28, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3032 Question 1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3033 Response to SO, paragraph 10

3034 Questionnaire 21 to OTC IRD customers, Doc ID 6472 and Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3035 Question 7, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3036 For instance, the link to the press release announcing the opening of an in-depth investigation was included at the outset of the questionnaire

(2486) As regards the Notifying Party's argument that the Commission's analysis has failed to take into account into its assessment the fact that at a minimum the 14 SwapClear banks have significant countervailing power, the Commission considers (i) that the finding that the 14 SwapClear banks have countervailing buyer power,[3037] is in itself contentious (as explained in Section 4.5.36.1.B.1.1.7. above), (ii) that even if it were so that these banks really had some degree of countervailing buyer power, it remains that these banks did not respond in a significantly different manner to the Commission's main question on switching[3038] from the rest of market participants,[3039] thus indicating that they would participate in the switching movements (which would allow LCH SwapClear to benefit from the customer foreclosure strategies) in similar ways as the rest of the market and (iii) that SwapClear banks being sell-side market participants, in the context of D2C OTC IRD clearing, it is very clear from the market investigation that they would have to follow their client's clearing preference (while it is very clear as well from the market investigation[3040] that buy-side market participants would indeed switch trading venue much more willingly than the average calculated across all market participants: the diversion ratios upstream for buy-side customers are significantly and consistently higher than for market participants as a whole – see the switching rates described above in this section).

(2487) For the reasons described below, the Commission considers that the Customer foreclosure strategies would likely be profitable for the combined entity post-Transaction.

B.2.2. Quantitative analysis

(2488) Based on the evidence collected during its in-depth investigation, in particular the switching figures described in recitals (2540) to (2543) above, the Commission has carried out a quantitative analysis of the combined entity's incentives to engage post-Transaction in the Customer foreclosure strategies. For the reasons detailed in this Section, the Commission's quantitative analysis evidence that the combined entity will have strong incentives to engage in the Customer foreclosure strategies post-Transaction.

B.2.2.1. Quantitative analysis of the combined entity's incentive to engage in the Customer foreclosure strategies against rivals' D2C on-venue OTC IRD trades

(2489) The Commission has carried out a quantitative analysis of the combined entity's incentives to engage post-Transaction in the Customer foreclosure strategies against

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3037 Based on the fact that none of the SwapClear Banks that were surveyed agreed with the Commission's hypothesis that they somehow lacked negotiating power – see Question 46, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

3038 And in particular Questions 25, 26 and 28 of Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

3039 Noticeably, (i) only four of the 14 SwapClear banks (29%) indicated that they would not switch trading venue in case of a deterioration of connectivity between a give trading venue and their preferred CCP, (ii) only one (7%) would not switch trading venue in the event that new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP and (iii) six (43%) would not switch trading venue in the event that clearing costs increased 5-10% as a result of trading OTC IRDs on their usual trading venue and clearing in their preferred CCP. These proportions are in line (sometimes slightly higher and sometimes slightly lower) with the respective non-switching percentages of 28%, 20% and 41% on the global set of respondents – See Questions 25, 26 and 28 of Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

3040 And in particular Questions 25, 26 and 28 of Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

Tradeweb's rivals' D2C on-venue OTC IRD trades.[3041] The input used by the Commission for its quantitative analysis are detailed in Table 115 below, including the sources of the information. For the reasons detailed below, the Commission's quantitative analysis evidences that the combined entity will have strong incentives to engage in the Customer foreclosure strategies post-Transaction against the D2C on-venue trades of trading venues of Tradeweb's rivals.

(2490) Firstly, in order to quantify the losses and gains that the combined entity would incur as a result of the Customer foreclosure strategies against rival's D2C on-venue OTC IRD trades, the Commission estimated the average profit downstream and upstream.

(2491) As a first step, the Commission estimated that LSEG's average profit per OTC IRD trade cleared by SwapClear was c. EUR […]. To estimate this, the Commission multiplied LCH's average revenue per cleared trade, which is estimated at EUR […],[3042] by LCH's profit margin, which is estimated at [a very high percentage],[3043] and by the percentage of LSEG's shareholding in LCH SwapClear, namely 82.6%.[3044]

(2492) As a second step, the Commission estimated that Refinitiv's profit per D2C OTC IRD trade executed was c. EUR […]. To estimate this, the Commission multiplied Tradeweb's profit per D2C OTC IRD trade executed, which is estimated at EUR […],[3045] by the percentage of Refinitiv's shareholding in Tradeweb, namely 54%.[3046]

(2493) As a third step, the Commission estimated that the profit for the combined entity for the trading and clearing of an D2C OTC IRD trade was c. EUR […] (by adding Refinitiv's profit per D2C OTC IRD trade executed on Tradeweb, namely EUR […],[3047] to LSEG's average profit per OTC IRD trade cleared by SwapClear, namely EUR […]).[3048]

(2494) Secondly, the Commission estimated that the total number of on-venue D2C OTC IRD trades cleared per year globally is […]. To estimate this, the Commission divided, as a first step, the total number of cleared OTC IRD D2C trades executed on Tradeweb in 2019 globally, namely […][3049] by the market share of Tradeweb for D2C OTC IRD electronic trading in 2019, namely [60-70]%.[3050]

3041 Namely: (i) refusing access to LCH SwapClear's clearing services for D2C trades executed on the trading venues of Tradeweb's rivals (total foreclosure of on-venue trades); (ii) degrading the technical quality or increasing the operational/technical requirements for D2C trades executed on the trading venues of Tradeweb's rivals (technical foreclosure strategies); or (iii) refusing or degrading cooperation with the trading venues of Tradeweb's rivals for the launch of new D2C products (innovation foreclosure strategies).

3042 Presentation of Charles River Associated dated 27 August 2020, "*Analyzing competitive effects in D2C OTC IRD trading and clearing – VA, vGUPPIs and equilibrium modelling*", slide 18. See also RFI 24 reply, Annex 6 and RFI 7 reply, question 16.

3043 RFI 23 reply, [internal document].

3044 Form CO, A.97.

3045 Presentation of Charles River Associated dated 27 August 2020, "*Analyzing competitive effects in D2C OTC IRD trading and clearing – VA, vGUPPIs and equilibrium modelling*", slide 18. See also RFI 35 reply, question 1.

3046 Form CO, C.V.2.

3047 See recital (2492).

3048 See recital (2491).

3049 RFI 37 reply, question 4.

3050 RFI 28 reply, Annex M.9564_RFI 28 Q1b iii. Global, tab IRSEUR_o_TradeCount. See also Table 13 above.

(2495) As a second step, the Commission estimated that the maximum number of trades that LCH SwapClear could possibly lose as a result of the Customer foreclosure strategies against D2C rivals was […]. To estimate this, the Commission subtracted the number of cleared trades executed on Tradeweb, namely […],[3051] from the estimated total number of trades cleared, namely […].[3052]

(2496) This allowed the Commission to estimate, as a third step, that the maximum potential loss that the combined entity could incur as a result of the foreclosure strategies (in case LCH SwapClear would no longer clear any of the D2C trades executed on Tradeweb's rivals) is EUR […]. To estimate this, the Commission multiplied the number of trades cleared with LCH SwapClear executed on Tradeweb's rivals, namely […],[3053] by LSEG's average profit per OTC IRD trade cleared by SwapClear, namely EUR […].[3054]

(2497) Thirdly, based on these estimates the Commission established that the critical switching rate for the Customer foreclosure strategies against D2C OTC IRD trades executed on trading venues of Tradeweb's rivals was 49%.

(2498) As a first step, the Commission estimated that a foreclosure strategy against rivals' D2C on-venue trades would be profitable if more than […] trades are displaced from a competing trading venue to Tradeweb. To estimate this, the Commission divided the estimated maximum potential loss that the combined entity could incur as a result of the foreclosure strategies, namely EUR […],[3055] by the per trade profit that the combined entity would gain from the trading and clearing of one OTC IRD trade, namely EUR […]. [3056]

(2499) As a second step, the Commission estimated that the critical switching rate was 49% by dividing the critical number of switched trades, namely […],[3057] by the number of trades that could be foreclosed, namely […].[3058]

(2500) This means that, in case as a result of these strategies Tradeweb recouped 49% of the D2C on-venue OTC IRD trades executed on trading venues of Tradeweb's rivals, this would lead for the combined entity to a loss incurred downstream from clearing (at EUR […] per trade)[3059] equal to the profit generated upstream and downstream from the trades that would switch to Tradeweb and remain cleared at LCH SwapClear (at EUR […] per trade).[3060] In other words, with a critical switching rate of 49% of the D2C OTC IRD customers of trading venues of Tradeweb's rivals, the combined entity would be indifferent between a foreclosure and a non-foreclosure strategy. As such, any observed switching rate above this rate (49%) makes the foreclosure strategy more profitable than a non-foreclosure strategy.

3051 RFI 37 reply, question 4.
3052 See recital (2494)
3053 See recital (2494).
3054 See recital (2492).
3055 See recital (2496).
3056 See recital (2493).
3057 See recital (2496).
3058 See recital (2494).
3059 See recital (2492).
3060 See recital (2493).

(2501) *Against this background*, the switching rates ranging from 59% to 80% observed from the responses to the second market investigation regarding the Customer foreclosure strategies against on-venue D2C trades of trading venues of Tradeweb's rivals are significantly higher than the estimated critical switching rate that would make a foreclosure strategy profitable. On this basis, all Customer foreclosure strategies against rivals' D2C on-venue trades appear profitable, by a wide margin.[3061]

(2502) As regards the Notifying Party's argument that the SO fails to provide information regarding how sensitive the conclusion of the VA modelling are to the market investigation outcome regarding customers' switching rates, the Commission considers that given the nature of the Commission's quantitative analysis (which consist in the calculation of a critical diversion ratio and comparing it to the switching rate obtained in the course of the market investigation), there is no need to engage in such a sensibility analysis, because it can only be very basic: the higher the switching rates are above the critical diversion ratio, the less sensitive the Commission's findings that the combined entity would have the incentive to engage in a given foreclosure strategy is to potential perturbation or modifications in the outcome of its market investigation (i.e. the market figures).[3062]

(2503) This is all the more valid given the conservative approach taken by the Commission's quantitative analysis. Indeed, the Commission's analysis assumes that all rivals' (D2C on-venue) trades that would not switch to Tradeweb would no longer be cleared by LCH SwapClear while the results of the Commission's in-depth investigation show that customers are very loyal to LCH SwapClear (see Section 4.5.36.1.A.1), which indicates that a material number of customers would likely continue to clear with LCH SwapClear even if they did not switch their on-venue D2C trading to Tradeweb.

(2504) As regards the Notifying Party's argument that the quantitative analysis conducted in the SO (and the present Decision) gives no consideration to the adverse consequences a move away from open access would have on the commercial success of the wider group; it is in fact based on one single comment, made by Société Générale, in response to the Commission's Questionnaire 22 to OTC IRD customers ("*All of the above scenarios* [i.e. where LCH SwapClear would no longer clear for rival venues or MarkitWire] *are not ones we would accept from LCH. We have a broad relationship with LCH across a wide range of asset classes, in both their UK and EU CCPs, and such behaviours would have a very negative effect on that relationship.* […] *A key success factor for an OTC clearing service, in our opinion, is*

3061 A complete refusal to supply LCH SwapClear's clearing services (total foreclosure) can be seen as an extreme version of the partial foreclosure strategies, namely of price-based partial foreclosure, technical degradation, and innovation foreclosure. Through this link of full and partial foreclosure strategies, the Commission draws conclusions about partial foreclosure strategies from the VA model. In other words, if the calculations establishing an incentive to carry out total foreclosure show that a total foreclosure strategy is profitable for LCH SwapClear, the conduct of any other partial foreclosure strategy of LCH SwapClear would imply that this partial foreclosure strategy is more profitable than the total foreclosure strategy (assuming profit maximizing behaviour of LCH SwapClear). The Commission rejects the Party's claims of high costs of technical foreclosure in recital (2505) and addresses the topic of EDM effects in section B.2.3 below.

3062 The Commission nonetheless observes that for all theories of harm considered, the switching rates derived from the Commission's market investigation are significantly higher than the critical diversion ratio (by 10 percentage points to 31 percentage points, depending on the precise theory of harm considered).

the ability to clear trades executed across a wide range of venues as well as off-venue/voice. We would not accept a limitation on this, as it would be impactful on our own business as well."[3063]). The Commission does not find that, in light of the analysis of the comprehensive body of evidence available to it, it is necessary or even relevant to take into account hypothetical losses for LCH SwapClear at the level of the wider group. *First*, Société Générale's comment is isolated, and no other customer mentioned or described the possibility to retaliate in such explicit terms. *Second*, though mentioning explicitly the possibility of a retaliation, Société Générale's comment remains rather vague on the form such a retaliation might take. The main description it gives (later in its response) is the following: "*Specifically Q1 – In part this would be determined by our clients and their chosen execution venue(s). Q2.1 - We would need to continue to be able to risk manage our LCH portfolio which may, indeed, necessitate some movement of trades. This would be under duress, and would have a profoundly negative impact on the ongoing business relationship between our firms across all business lines, not just IRS clearing. Q2.2 – Disconnecting LCH SwapClear from the main conduit through which IRS are communicated and confirmed would be a major change to market structure. This, in turn, could lead to significant other changes, such as location of clearing. This is not a certainty, but this kind of change would give rise to a fundamental reconsideration of our clearing flows. Given the number of actors in the system (compression services, clients, counterparties, technology providers, other CCPs etc) it is not possible to predict the exact outcome ex-ante.*" As such, the most precise description that Société Générale makes of a possible retaliation is that Société Générale would reconsider its clearing flows, which is not very informative. *Third* absolutely nothing from Société Générale's response (or other market participant's responses) indicates that a potential retaliation could impact other companies of the LSEG or LCH groups. *Fourth*, Société Générale's comment, even if admitted to suggest remotely that some customers, and in particular large customers such as Société Générale, might have the willingness and the ability to retaliate to some degree, it still remains that Société Générale expects an overall negative impact of the Transaction (including through higher prices, lower-quality products and reduced innovation) on the OTC IRD trading and clearing markets,[3064] which in itself suggests that Société Générale itself believes that such potential retaliations would have no bearing on the overall incentive of the combined entity to engage in a potential customer strategy.

(2505) As regards the Notifying Party's argument that with respect to technical foreclosure strategies, the SO has failed to take into account the costs needed for LCH SwapClear to put in place such a strategy, in light of the fact that it would require for instance some degree of re-designing of LCH SwapClear's workflows, the Commission considers that these costs would be (i) one-off (i.e. only to be borne on the first year the strategy is implemented, but not the years after) and (ii) small in comparison to the potential gains. As regards the second point, the Commission considers it likely that the one-off costs to be borne by LCH SwapClear in order to modify its clearing workflow would be in the order of magnitude of the ones of an important IT project aimed at modifying an existing infrastructure, that is to say several million euros in the most pessimistic scenarios. These costs would need to be compared to the potential gains from the foreclosure strategies. Based on the content

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3063 Question 3, Questionnaire 22 to OTC IRD customers, response of Société Générale, Doc ID 6679.

3064 Question 39, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

of the quantitative analysis, a customer strategy based on technical foreclosure where 72% of customers would switch trading venue upstream would represent a gain for the combined entity of EUR […] per year. Similarly a customer strategy based on the denial of cooperation to rival trading venues in relation to the introduction of new products, where 80% of customers would switch trading venue upstream would represent a gain for the combined entity of EUR […] per year.

Table 115

Category of items	#	Item	Figures
Results of the Commission's market investigation[3065]		LCH customers switching to Tradeweb in case of a technical foreclosure (degradation of connectivity)	[70-80]%
		LCH customers switching to Tradeweb in case of an innovation foreclosure (refusal to cooperate with trading venues for the introduction of new products)	[80-90]%
		LCH customers switching to Tradeweb in case of an increase in price	[50-60]%
Clearing	A	Average revenue per trade cleared (EUR)[3066]	[…]
	B	LCH profit margin[3067]	[a very high percentage]
	C	LSEG ownership in LCH[3068]	[80-90]%
	D	LSEG profit from trade cleared by LCH (EUR)[3069]	[…]
Trading	E	Number of cleared OTC IRD D2C trades executed on Tradeweb in 2019[3070]	[…]
	F	Market share of Tradeweb D2C OTC IRD electronic trading, 2019[3071]	[60-70]%
	G	Number of cleared D2C OTC IRD electronic trades in the market overall[3072]	[…]
	H	Tradeweb profit per D2C OTC IRD trade on Tradeweb (EUR)[3073]	[…]
	I	Refinitiv ownership of Tradeweb[3074]	[50-60]%
	J	Refinitiv profit per D2C OTC IRD trade on Tradeweb (EUR)[3075]	[…]
Foreclosure incentives in D2C OTC IRD	M	Combined profit from trading and clearing per D2C OTC IRD trade (EUR)[3076]	[…]
	N	Number of potentially foreclosed electronic D2C OTC IRD trades[3077]	[…]
	O	Potential maximum loss from clearing of foreclosed trades (EUR)[3078]	[…]

3065 Questions 25 to 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472; Question 1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.
3066 Economic consultant presentation of 27 August 2020, slide 18.
3067 [internal document].
3068 See for instance Response to the decision pursuant to Article 6(1)(c), paragraph 154.
3069 Calculated by the Commission (A*B*C).
3070 RFI 37 reply, question 4.
3071 RFI 28 reply, Annex M.9564_RFI28 Q1b iii. Global, tab IRSEUR_o_TradeCount
3072 Calculated by the Commission (E/F).
3073 RFI 35 reply, question 1, converted from USD at 1.12 EURUSD exchange rate.
3074 See for instance Response to the decision pursuant to Article 6(1)(c), paragraph 154.
3075 Calculated by the Commission (H*J).
3076 Calculated by the Commission (C+G).
3077 Calculated by the Commission (G-E).

Category of items	#	Item	Figures
	P	Critical number of switching customers in D2C OTC IRD[3079]	[…]
	R	Critical switching rate in D2C OTC IRD[3080]	[40-50]%

B.2.2.2. Quantitative analysis of the combined entity's incentive to engage in a refusal to clear D2C trades

(2506) The Commission also quantified the incentives of the combined entity to refuse to clear (i) D2C OTC IRD trades that were executed on rival trading venues such as Bloomberg and Tradition and (ii) the trades that were executed outside of a trading venue through middleware providers. Such foreclosure strategy therefore implies that the combined entity implements post-Transaction an outright refusal to clear all trades submitted via MarkitWire, in addition to all trades submitted via LCH SwapClear's direct connections with Tradeweb's rivals.

(2507) The input used by the Commission for its quantitative analysis are detailed in Table 115 below, including the sources of the information. For the reasons detailed below, the Commission finds that the combined entity would have strong incentives to engage in such a foreclosure strategy.

(2508) Firstly, in order to quantify the losses and gains that the combined entity would incur as a result of the refusal to clear D2C trades executed on trading venues of Tradeweb's rivals and middleware providers, the Commission relied on (i) the average profit upstream of Refinitiv per D2C OTC IRD trade executed by Tradeweb, (ii) the average profit downstream of LCH SwapClear per OTC IRD cleared by LCH SwapClear and (iii) the total annual number of D2C OTC IRD trades that were cleared, including the share that were executed outside of Tradeweb's trading venues (established and described in Section 5.7.2.B.2.1. above).

(2509) Secondly, the Commission estimated that the total number of off-venue D2C OTC IRD trades cleared per year globally is [...]. The Notifying Party submitted that the number of D2C OTC IRD cleared trades executed through Tradeweb amounted to [...] in 2019.[3081] Based on the market share of Tradeweb in D2C OTC IRD on-venue trading of [60-70]%, the Commission estimated that the total number of D2C on-venue OTC IRD trades stood at around [...] in 2019. Further, the Commission divided the number of D2C electronic trades cleared by LCH SwapClear, namely [...],[3082] by the share of on-venue trade in D2C IRD OTC trading, namely [40-50]%[3083], minus the number of cleared on-venue D2C OTC IRD electronic trades in the market overall, namely [...].[3084]

(2510) Thirdly, the Commission established the number of off-venue D2C trades that would switch to electronic trading (and therefore that could switch Tradeweb) in the event that LCH SwapClear was no longer clearing D2C trades executed outside of Tradeweb's venues, including off-venue trades submitted via MarkitWire. To estimate this, the Commission asked customers whether, in case LCH SwapClear

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3078 Calculated by the Commission (N*D).
3079 Calculated by the Commission (O/M).
3080 Calculated by the Commission (P/N).
3081 RFI 37 reply, question 4.
3082 See recital (2494)
3083 See Table 9 above.
3084 See recital (2494)

was no longer connected to MarkitWire for voice trades, they would switch some of their voice trades towards electronic trading venues. The market investigation revealed that in such an event, 42% of customers would switch a significant share of their voice trades towards electronic trading venues, 36% would switch a limited share of their voice trades towards electronic trading venues, and 21% would not switch their voice trades at all towards electronic trading venues.[3085]

(2511) Taking the prudent assumption that "*a significant share*" would represent in average 40% of a given customer's voice trades, and that "*a limited share*" would represent in average 20% of a given customer's voice trades,[3086] the Commission estimates that [...] D2C voice trades (42%*40%*[...] + 36%*20%*[...]) would switch to electronic trading in such a scenario, while [...] ([...] – [...]) would remain off-venue.

(2512) Fourthly, the Commission sought to estimate the proportion of voice trades, among the trades that would not switch to electronic trading in the scenario at hand, which would continue to be cleared by LCH SwapClear (and would not represent a loss to the combined entity). The market investigation revealed that this proportion would remain high, with 63% of customers stating that, as regards the trades that they would continue to do by voice (despite the fact that LCH SwapClear is no longer connected to MarkitWire), they would continue to clear with LCH SwapClear in similar proportions but not via MarkitWire, while 37% of customers replying that they would move a substantial part of these voice trades' clearing towards other CCPs. Taking here the conservative assumption that "*a substantial part*" could represent up to 100% of a given customer's voice trades, one can conservatively estimates that among the [...] trades that remain off-venue,[3087] [...] (63%*[...]) will continue to be cleared by LCH SwapClear, and [...] ([...] – [...]) will move from LCH SwapClear to rival CCPs.

(2513) The Commission estimated that the full foreclosure strategy would be profitable if more than [...] D2C trades are switched to Tradeweb. To estimate this, the Commission divided the estimated maximum potential loss that the combined entity could incur as a result of the foreclosure strategy, namely EUR [...],[3088] by the per trade profit that the combined entity would gain from the trading and clearing of one OTC IRD trade, namely EUR [...].[3089]

(2514) Fifthly, based on these estimates the Commission established that the critical switching rate for a refusal to clear D2C OTC IRD trades executed on trading venues of Tradeweb's rivals as well as trades submitted via middleware providers such as MarkitWire was 8%.[3090] This switching rate corresponds to the critical number of switching trades of [...] divided by the number of electronic trades that would be foreclosed of [...].

3085 Question 2.1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3086 For the avoidance of doubts, despite the fact that the model presented in this section is relatively sensitive to these parameters, the level of incentive it evidences is so high that even considering "a significant proportion" to be 10% and "a limited proportion" to be 1% would still demonstrate that the combined entity would have the incentive to engage in such a foreclosure strategy.

3087 See recital (2511).

3088 EUR loss from vice trades not switching and not remaining ([...]) - EUR profit from voice trades switching to tradeweb ([...])

3089 See recital (1330).

3090 According to a methodology, similar to the one described in paragraghs (2497)-(2499), and explained in Table 116.

(2515) This means that, in case of foreclosure, the combined entity would generate additional profits from foreclosing MarkitWire if at least an additional 8% of customers currently trading on a different venue than Tradeweb would switch to Tradeweb. If Tradeweb recouped an additional 8% (on top of the 49% critical switching rate needed to make the foreclosure of electronic rival venues profitable) of the D2C OTC IRD trades executed on Tradeweb's rivals (and taking into account the number of off-venues trades switching to on-venue trading), this would lead for the combined entity to a loss incurred downstream from clearing (at EUR [...] per trade) equal to the profit generated upstream and downstream from trades that would switch to Tradeweb and remain cleared at LCH SwapClear (at EUR [...] per trade). In other words, with a critical switching rate of 578% of D2C OTC IRD on-venue trades, the combined entity would be indifferent between a foreclosure and a non-foreclosure strategy. As such, any observed switching rate above this rate the combined critical switching rate of 57%(8%) and makes the foreclosure strategy more profitable than a non-foreclosure strategy.

(2516) *Against this background,* the switching rate of 75%[3091] observed from the responses to the second market investigation for this customer foreclosure strategy is higher than the estimated critical switching rate that would make a foreclosure strategy profitable The overall number of displaced trades from competitors to Tradeweb would amount to approximately [...], consisting of [...] trades displaced from off-venue to Tradeweb and [...] (75%*[...]) trades displaced from other venues towards Tradeweb.

(2517) On this basis, a refusal to clear D2C trades executed on trading venues of Tradeweb's rivals and middleware providers such as MarkitWire appear profitable, by a wide margin.

(2518) This is all the more valid given the conservative approach taken by the Commission's quantitative analysis. Indeed, the Commission's analysis assumes that all rivals' (D2C on-venue) trades that would not switch to Tradeweb would no longer be cleared by LCH SwapClear while the results of the Commission's in-depth investigation show that customers are very loyal to LCH SwapClear (see Section 4.5.36.1.A.1), which indicates that a material number of customers would likely continue to clear their D2C on-venue trades with LCH SwapClear even if they did not switch their trading to Tradeweb.

Table 116

Category of items	#	Item	Figures
Results of the Commission's market investigation[3092]		LCH electronic D2C IRD OTC customers switching to Tradeweb in case of a full foreclosure[3093]	[70-80]%
Clearing	A	Average revenue per trade cleared (EUR)[3094]	[...]
	B	LCH profit margin[3095]	[a very high percentage]
	C	LSEG ownership in LCH[3096]	[a high percentage]

3091 Question 1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3092 Questions 25 to 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472; Question 1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3093 Second market investigation response 1 to Q22 follow-up to Q21

3094 Economic consultant presentation of 27 August 2020, slide 18.

3095 [internal document].

3096 See for instance Response to the decision pursuant to Article 6(1)(c), paragraph 154.

Category of items	#	Item	Figures
On-venue trading	D	LSEG profit from trade cleared by LCH (EUR)[3097]	[...]
	E	Number of cleared OTC IRD D2C trades executed on Tradeweb in 2019[3098]	[...]
	F	Market share of Tradeweb D2C OTC IRD electronic trading, 2019[3099]	[60-70]%
	G	Number of cleared D2C OTC IRD electronic trades in the market overall[3100]	[...]
	H	Tradeweb profit per D2C OTC IRD trade on Tradeweb (EUR)[3101]	[...]
	I	Refinitiv ownership of Tradeweb[3102]	[50-60]%
	J	Refinitiv profit per D2C OTC IRD trade on Tradeweb (EUR)[3103]	[...]
Voice trading	K	Market share of electronic on-venue trades in D2C IRD OTC trading[3104] -	[40-50]%
	L	Overall number of voice OTC IRD D2C cleared trades[3105]	[...]
	M	percentage of customers moving a significant share of their voice trade to Tradeweb Dealerweb in case of MarkitWire foreclosure[3106]	[40-50]%
	N	percentage of customers moving a limited share of their voice trade to Tradeweb Dealerweb in case of MarkitWire foreclosure[3107]	[30-40]%
Foreclosure incentives in D2C OTC IRD on-venue and electronic trades	O	Commission's assumption about the proportion of trades representing a significant share	[40-50]%
	P	Commission's assumption about the proportion of trades representing a limited share	[20-30]%
	Q	Combined profit from trading and clearing per D2C OTC IRD trade (EUR)[3108]	[...]
	R	Number of potentially foreclosed electronic D2C OTC IRD trades[3109]	[...]
	S	Number of voice trades displaced towards Tradeweb[3110]	[...]
	T	Number of voice trades that will not switch to Tradeweb[3111]	[...]
	U	Proportion of voice trades that will stay with LCH even if they for not switch trading to Tradeweb[3112]	[60-70]%
	V	Number of voice trades that do not switch towards Tradeweb but continue to clear with LCH[3113]	[...]
	W	Potential loss from foreclosed voice trades that will neither switch to Tradeweb nor remain with LCH (EUR)[3114]	[...]
	X	Potential profit from voice trades switching to Tradeweb (EUR)[3115]	[...]

3097 Calculated by the Commission (A*B*C).
3098 RFI 37 reply, question 4.
3099 See Table 13 above
3100 Calculated by the Commission (E/F).
3101 RFI 35 reply, question 1, converted from USD at 1.12 EURUSD exchange rate.
3102 See for instance Response to the decision pursuant to Article 6(1)(c), paragraph 154.
3103 Calculated by the Commission (H*J).
3104 See Table 9 above.
3105 Calculated by the Commission (G/K-G)).
3106 Second market investigation response 2.1 to Q22 follow-up to Q21
3107 Second market investigation response 2.2 to Q22 follow-up to Q21
3108 Calculated by the Commission (D+J).
3109 Calculated by the Commission (G-E).
3110 Calculated by the Commission (L*(M*O+N*P)).
3111 Calculated by the Commission (L-S).
3112 Second market investigation response 2.2 to Q22 follow-up to Q21
3113 Calculated by the Commission (T*U).
3114 Calculated by the Commission ((L-S-V)*D).

Category of items	#	Item	Figures
	Y	Residual loss (profit) from foreclosed voice trades (EUR)[3116]	[...]
	Z	Critical number of switching electronic D2C IRD OTC trades switching towards Tradeweb	[...]
		Critical incremental switching rate in on-venue D2C OTC IRD[3117]	[5-10]%

B.2.3 Considerations on the Notifying Party's economic model

(2519) With respect to a potential price-based customer foreclosure, the Notifying Party submits economic analyses (vGUPPI and equilibrium modelling) aiming to demonstrate that the Transaction is not likely to reduce consumer surplus in the markets for D2C OTC IRD clearing and trading in case the combined entity engages in a price-based partial foreclosure strategy.[3118] The theoretical models submitted weigh off the potential benefits for the combined entity of a price-based partial foreclosure strategy (e.g. via raising rivals' costs) with potential costs for the combined entity in the form of lower downstream prices (e.g. via taking into account potential efficiencies in the form of elimination of double marginalization). The Notifying Party interprets the results, which show in many but not all calibrations that the impact of margin elimination overturns the effect of raising rival's costs, as an indication that a partial price-based customer foreclosure strategy would not harm consumers in the markets for D2C OTC IRD clearing and trading. In particular, the model assumes a demand structure, diversion ratios of foreclosed customers, and that end-customers buy one unit of each product.[3119] The Commission has analysed the presented economic model and, for the reasons given below, first, finds the suggested modelling exercise not an appropriate approximation of the industry characteristics and, second, considers that the presented efficiencies are unlikely to overturn the potential harm arising from the Transaction.[3120]

(2520) *First*, at the outset, the Commission notes that the vGUPPI and equilibrium models submitted by the Notifying Party only concern the price-based partial input foreclosure theory of harm.[3121] The Notifying Party's analysis does not show whether and to what magnitude the findings, in particular the alleged benefits for consumers, can be extrapolated to the other theories of harm put forward by the Commission, namely full foreclosure, partial technical foreclosure, and innovation foreclosure. In particular, the Notifying Party has not submitted evidence how to incorporate alleged efficiencies in the non-price-based foreclosure analysis of the Commission in the SO.

3115 Calculated by the Commission (S*J).

3116 Calculated by the Commission (W-X).

3117 Calculated by the Commission (Z/R).

3118 Notifying Party's submissions "Analysing competitive effects in D2C OTC IRD clearing and trading" dated 8 September 2020; "M.9564 - LSEG/Refinitiv - IRD workshop - data submission" dated 1 September 2020 and "M.9564 LSEG / Refinitiv - IRD workshop - economic paper and further data submission" dated 8 September 2020

3119 The Commission notes that the assumptions are specific to the theory of harm in the markets of trading/clearing OTC IRDs and are difficult to relate to the other theories of harm of this case.

3120 The Commission also notes that submitted efficiency claims have to be substantiated according to the requisite standard, i.e. the Commission's merger guidelines.

3121 As described on page 1 in Notifying Party's submissions "Analysing competitive effects in D2C OTC IRD clearing and trading" dated 8 September 2020.

Therefore, the Commission can consider the submitted economic models only in the context of partial price-based foreclosure.[3122]

(2521) *Second*, at the outset, the Commission recalls that, according to the Non-Horizontal Merger Guidelines, "*When assessing efficiencies in the context of non-horizontal mergers, the Commission applies the principles already set out in Section VII of the Notice on Horizontal Mergers In particular, for the Commission to take account of efficiency claims in its assessment of the merger, the efficiencies have to benefit consumers, be merger-specific and be verifiable. These conditions are cumulative*."[3123] The Commission considers that the efficiencies claimed by the Notifying Party do not meet the above-described conditions. In particular, the Commission has established and assessed its theory of harm of customer foreclosure in the market of trading/clearing OTC IRD based on specific evidence and facts submitted by the Notifying Party and gathered during the in-depth market investigation. In particular, the Commission establishes the incentive to foreclose relying on calculations based on information from the Notifying Party and third parties in the course of the investigation. While in theory, in vertical mergers consumer harm could be overruled by potential efficiencies inter alia in the form of the elimination of double marginalization ("EDM"),[3124] the Commission has invited the Parties to substantiate these efficiencies for the vertical link between the trading and clearing of OTC IRDs, for example in the Commission's RFI 32. In its reply, the Notifying Party states that "*no merger-related revenue synergies resulting from changes in the combined entity's prices are expected in connection with OTC IRDs trading and clearing*".[3125] Instead, the Notifying Party has sought to establish that EDM will outweigh the harm to consumers purely on theoretical grounds such as submitted of vGUPPI calculations and equilibrium modelling.[3126] Absent any concrete evidence that post-Transaction, the combined entity expects to lower prices as a result of EDM, the Notifying Party's arguments can only be taken into account to the extent that it can be established that the assumptions underpinning the models reasonably correspond to the characteristics of the OTC IRD trading and clearing markets. In addition, if the quantification of incentives (e.g. with a VA model) shows that a refusal to supply could be profitable (LCH SwapClear's outside option), it must be even more profitable for LCH SwapClear to raise prices substantially.[3127] Since the calculations establishing an incentive to carry out total foreclosure presented by the Commission in Section 4.5.36.1.B.2.2.1. above show an incentive for the Notifying Party to engage in a total foreclosure strategy, the Commission considers price-based partial foreclosure also as a profitable strategy.

3122 The Commission notes that a full foreclosure can be an extreme case of partial price-based foreclosure when the price increases are infinitive (or extremely large). The Commission assesses the profitability of a full foreclosure strategy of the merged entity in the VA models presented in sections 4.5.36.1.B.2.2.1. above.

3123 Non-Horizontal Merger Guidelines, paragraph 53.

3124 As argued by the Party and described in the Non-horizontal Merger Guidelines.

3125 RFI 32 reply, paragraph 11.

3126 See "Analysing competitive effects in D2C OTC IRD clearing and trading" dated 8 September 2020

3127 A complete refusal to supply LCH SwapClear's clearing services (full foreclosure) can be seen as an extreme version of price-based partial foreclosure. Through this link of full and partial foreclosure strategies, the Commission draws conclusions about partial foreclosure strategies from the calculations establishing an incentive to carry out total foreclosure. In other words, if the VA models shows that a full foreclosure strategy is profitable for LCH SwapClear, the implementation of any other partial foreclosure strategy of LCH SwapClear would imply that this partial foreclosure strategy is more profitable than the full foreclosure strategy (assuming profit maximizing behaviour of LCH SwapClear).

(2522) *Third*, at the outset, the vertical relationship between OTC IRD trading and clearing provides little scope for efficiencies. While, in general, vertical mergers provide scope for efficiencies, including the internalisation of double mark-ups of the input good,[3128] a vertical merger may provide an incentive to lower the prices inasmuch as it would attract additional customers from which the combined entity could earn a margin both upstream and downstream. In particular, the effects of EDM are larger the more additional customers can be attracted to clear OTC IRD on LCH SwapClear either (i) from rival CCP or (ii) from trades that are not cleared at all pre-merger. As already outlined in the SO, based on the characteristics of this case, the Commission considers that the scope for attracting additional customers from lowering prices are limited for the following reasons.

(2523) Firstly, market characteristics and evidence on file supports the above finding because LCH SwapClear already clears the vast majority of OTC IRDs, namely more than [90-100]% in terms notional cleared volumes,[3129] and thereby covers almost the total market. Consequently, if LCH SwapClear decreased its prices for Tradeweb's customers, LCH SwapClear could potentially attract only a relatively small number of trades that are currently cleared by rival clearing houses (around [10-20]% of the market). In fact, a potential price decreases to gain sales for LCH SwapClear post-Transaction would mostly cannibalize trades that LCH SwapClear would have cleared anyways (and that were traded via a rival trading house).[3130]

(2524) Secondly, neither the evidence on file nor the Notifying Party show that a significant number of new end-customers would enter the market. Moreover, the clearing obligations already in place with respect to OTC IRDs provide very little prospect that a significant amount of pre-merger un-cleared trades would be cleared post-merger due to a change in the prices of LCH SwapClear's clearing.

(2525) *Fourth*, the Commission questions whether the Notifying Party can extract profits that correspond to their market power pre-merger, i.e. whether the Notifying Party set profit maximizing prices pre-merger.[3131] Since the Notifying Party's model assumes a profit maximizing equilibrium pre-merger which does not appear to correspond to the current reality of the market, the Commission considers the findings as not indicative of the post-merger equilibrium prices. Particularly, with respect to pricing, the Commission agrees with the Notifying Party that if "*clearing and trading fees were all two-part prices with an economically efficient structure (i.e. a structure in which the variable price on incremental trades equalled marginal cost), then there would be no EDM effects but there would also be no RRC incentive*"[3132]. Indeed, the payment structure of many but not all customers of LCH SwapClear's clearing of OTC IRD trades is generally comprised of fixed fees (membership fees) and variable fees per trade, as described in the SO, submitted by the Notifying Party and described in recital (2452) above. However, for the following reasons, the Commission finds that the two-part prices tariffs put in place by LCH SwapClear are not economically efficient. The Notifying Party's vGUPPI

3128 Recital 13 in Non-horizontal Merger Guidelines.

3129 See Table 29 above

3130 An argument also described in recitals 1291 and 1292 in Case M.9064-Telia Company/ Bonnier Broadcasting Holding, a precedent with a vertical foreclosure theory of harm and considerations around the concept of the elimination of double marginalization.

3131 For example, in a monopoly for OTC IRDs clearing, the Commission would expect to observe monopolistic prices in the market. Consequently, with very high market shares for LCH SwapClear in OTC IRD clearing, the Commission would expect to observe prices close to monopolistic prices.

3132 Response to the SO, Annex 2, paragraph 12.

model is not an appropriate approximation of the effects of the price-based partial foreclosure because it does not sufficiently take into account the characteristics of the pre-merger pricing equilibrium and likelihood of EDM in that context.

(2526) Firstly, the Commission notes that the quantification of the incentives to totally foreclose access to LCH SwapClear's services finds that the merged entity could earn more profits from a total foreclosure theory.[3133] Without it being necessary to determine exactly the reasons for this, the incentives to implement a total foreclosure strategy show that potentially earned profits post-merger are higher than pre-merger, i.e. indicating that LCH SwapClear does not set prices close to monopolistic prices (as it could be expected from their market shares) before the merger. The different pieces of evidence listed below point to various explanations.

(2527) Secondly, the Notifying Party submits that LCH SwapClear's price setting faces regulatory constraints, as described in recital (2232) and thereafter. If regulations indeed restricts pricing, it remains unclear how LCH SwapClear would set prices in the pre-merger equilibrium.[3134]

(2528) Thirdly, the Notifying Party submits that LCH SwapClear's pricing pre-merger is constrained by negotiations and buyer power of end-customers,[3135] and in particular that "*Dealer-banks and buy-side clients have significant countervailing buyer power that they would leverage*".[3136] This is illustrated for instance by the fact that [customer] has tried to negotiate its clearing fee, i.e. discuss the possibility of introducing a discount fee plan.[3137] Responses from the market investigation differ across end-customer types[3138] but generally confirm that some customers intend to negotiate with LCH SwapClear or retaliate if they experience foreclosure (technical degradation) from LCH SwapClear clearing services.[3139] Similarly, a short majority of both sell-side and buy-side customers (52%) agree that LCH faces meaningful competition from other OTC IRD CCPs[3140] and 62% of them consider that their ability to switch CCP constrains LCH SwapClears's pricing.[3141] The Notifying Party's model assumes posted prices (which implies price taking end-customer) and does not take into account that some end-customers seem to bargain about fees and that not all of the end-customers face the same payment structure (as described above in para (2452), pricing models can differ across end-customers). These facts cast

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3133 The Notifying Party submits, for example, that they generate smaller profits in the dominant market of clearing OTC IRD trades ([90-100]% market share), namely […] EUR per trade, than in the market of OTC IRD trading ([…] EUR revenue per trade) where they have a smaller market share of [60-70]% when considering the narrow market of D2C electronic only market shares.

3134 As assessed in recital (2389) above(2388), the Commission considers that also the [description of a term of SwapClear's commercial agreement] prevents LCH SwapClear from increasing prices to levels that could be reached absent the agreement.

3135 The Commission also considers that there are negotiations also between trading venues and CCPs, for example about the technical features of connections between the two venues, as described in recitals (2349) and (2350).

3136 See the Notifying Party's submission "No Possible Foreclosure in OTC IRDs Trading and Clearing" dated 8 September 2020, paragraph 5.

3137 See the Notifying Party's submission "No Possible Foreclosure in OTC IRDs Trading and Clearing" dated 8 September 2020, paragraph 5.

3138 For example, SwapClear Banks who are collectively negotiating terms in the SwapClear agreement do not negotiate individually terms in addition to the SwapClear agreement (Question 4 of Questionnaire to SwapClear Banks), as pointed out by the Party in recital 17 of Annex 2 of the Reply to the SO, dated 16 October 2020.

3139 Question 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3140 Question 24.2, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

3141 Question 41, Questionnaire 21 to OTC IRD trading and clearing customers, Doc ID 6472.

doubt on the Notifying Party's predictions about the pass-on of lower marginal costs, via the elimination of LCH SwapClear's margin.

(2529) Fourthly, the Notifying Party describes the SwapClear agreement as an obligation to consult with SwapClear Banks [description of a term of the SwapClear agreement].[3142] The Notifying Party's model does not take into account that some end-customers are SwapClear Banks and benefit from the SwapClear agreement and other end-customer are not. It remains unclear how the SwapClear agreement affects price setting pre-merger. Regarding the post-merger equilibrium, as already described in the SO, the SwapClear agreement is not considered in the calculations of the efficiencies although it seems to affect SwapClear's ability to determine prices to a certain degree. In this context, it remains unclear whether SwapClear Banks would agree to lower prices[3143] as part of a foreclosure theory. If the elimination of double mark-ups lead to lower revenues, and even profits, of SwapClear, SwapClear Banks may demand monetary transfers to compensate for the decrease in profitability of LCH SwapClear and, thus, alter the incentives to pass-on price decreases from eliminated mark-ups. This is all the more true in view of the [description of commercial arrangement]. The Notifying Party's model does not lay out how [description of commercial arrangement] would affect its findings.[3144]

(2530) Finally, for all the reasons above, the Commission does not consider the Notifying Party's vGUPPI and equilibrium modelling as an appropriate method to analyse the vertical link in OTC IRD trading and clearing. Even if price constraints were binding post-merger, the Commission considers that the Notifying Party would have the incentive, along with the ability, to leverage its dominant position in clearing and foreclose the trading venues of Tradeweb's rivals in non-price based ways and thereby (i) avoid clearing regulation and (ii) strengthen its dominant position in trading. For example, the Commission considers it likely that the combined entity will engage in technical partial foreclosure to extract more rents from trading and clearing post-merger, for example via technical degradation, as described in Section 4.5.36.1.B.1.3.2.

(2531) *Fifth*, the technical adaptions of the vGUPPI calculations cast doubts on the reliability of the results that aim to approximate the post-merger outcome. The Notifying Party's model deviates from the standard vGUPPI model[3145] by including an EDM feedback effect in their vGUPPI calculation, as described in Section A.1.2 of its submission. The Notifying Party's model incorporates a feedback effect when computing the EDM in the vGUPPI for LCH SwapClear's prices charged to Bloomberg by incorporating solely the pure EDM effect and effectively ignoring the effect that drives upward pricing pressure stemming from the recapturing of demand upstream. This appears to lead to an overestimation of the EDM effect and to results that would be excessively in favour of the Notifying Party. Further, the models expresses the vGUPPI for the integrated product as pricing pressure on LCH fees for a given Tradeweb fee, instead of the more realistic effect of discounted integrated

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3142 Form CO, paragraphs C.V.183 ff.

3143 As described in Notifying Party's response to question 7 of the Commission's Request for information 28 dated 13 August 2020

3144 Similar to the mechanism described in recital (304) CASE M.7194-Liberty Global/Corelio/W&W/De vijver Media

3145 Compare Moresi, Serge, and Steven C. Salop. "vGUPPI: Scoring unilateral pricing incentives in vertical mergers." Antitrust LJ 79 (2013): 185.

trades by adjusting the Tradeweb's fees for a given LCH fee. [3146] The original model on which the Notifying Party's model relies expresses the terms of pricing pressure separately as *vGUPPId* and the *vGUPPIu*.[3147] The modification to the models will bias the results in favour of the Notifying Party and render them incomplete.

(2532) *Sixth*, even if the Commission were to accept the Notifying Party's vGUPPI and equilibrium modelling as an appropriate tool to analyse the partial price-based foreclosure of OTC IRD trading and clearing (*quod non*), certain unsubstantiated and/or incorrect technical assumptions made by the Notifying Party regarding market structure, customers' purchasing behaviour and firms' strategies would alter the predictive power of the model's results as described below. In particular, the Commission notes that, while the scope for EDM is expected to be small due to market characteristics (as described above), the Notifying Party's results in the submitted vGUPPI and equilibrium models find that in many situations the EDM is strong and overturns negative effects for end-customers (and rivals). Therefore, the Commission considers that the results are based on assumptions that do not necessarily fit well with the actual market characteristics.[3148]

(2533) As a first example, the economic models submitted by the Notifying Party assume a linear, logit or constant elasticity of substitution form of the demand structure. The Notifying Party argues that linear demand is common in the economic literature without submitting evidence that these theoretical demand forms correspond to the reality of actual market structure in this specific case relates. [3149]

(2534) As a second example, the Notifying Party assumes in its models a pass-through rate of cost savings of 0%, 50% and 75%.[3150] The Commission notes that the submitted rates are based on broader economic literature[3151] which are not case-specific (and which hence do not necessarily fit to the facts of the present case).

(2535) As a third example, the economic models submitted by the Notifying Party make certain assumptions that are contradicted by evidence stemming from the Commission's market investigation, which bias the results in favour of the thesis defended by the Notifying Party. For example, "pure voice" trading is not considered as part of the market in the economic models while the Notifying Party submitted market shares for the OTC IRD - trading market including voice trading.[3152] In addition, the market investigation revealed that in the event that LCH SwapClear was no longer connected to MarkitWire for voice trades, 42% of customers would switch a significant share of their voice trades towards electronic trading venues and 36% would switch a limited share of their voice trades towards electronic trading venues.[3153] The Commission has precisely endeavoured to take this effect into account in Section 4.5.36.1.B.2.2.2. above, revealing strong incentives in the event of

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3146 This scenario is all the more relevant given the large (but not complete) market coverage of LCH SwapClear.

3147 Moresi, Serge, and Steven C. Salop. "vGUPPI: Scoring unilateral pricing incentives in vertical mergers." Antitrust LJ 79 (2013): 185.

3148 See Section 2 of "M.9564 LSEG / Refinitiv - IRD workshop - economic paper and further data submission" dated 8 September 2020

3149 Response to the SO, Annex 2, paragraph 8.

3150 Response to the SO, Annex 2, paragraph 14, the Party points out that the pass-on rate of EDM of 9% was presented for illustrative purposes only.

3151 See "Analysing competitive effects in D2C OTC IRD clearing and trading" dated 8 September 2020, footnote 4.

3152 See Section 4.4.1 above.

3153 Question 2.1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

a foreclosure of all (on-venue and off-venue) D2C trades. Further, the Commission notes that some scenarios in the submitted economic models build on diversion rates to rival clearing houses of up to 100%. This assumption is in contrast to the evidence from the market investigation, indicating that a large majority of end-customers is not willing to switch CCP upon any type of foreclosure from LCH SwapClear's clearing services.[3154] Lastly, the Notifying Party simply assumes a range of diversion ratios from foreclosed trading rivals instead of relying on the standard approach from the economic literature to estimate diversion ratios from market shares.[3155]

(2536) Finally, due to the reasons, concerns about assumptions and uncertainties surrounding the economic models of the Notifying Party taken together, the Commission concludes that the results of the models do not provide strong indications with respect to the likely market outcomes post-Transaction. For the reasons presented above, the Commission considers that the efficiencies by the Notifying Party are likely not sufficient to overturn the potential harm arising from the Transaction.

B.2.4. Tradeweb's commercial attractiveness

(2537) In addition, as a subsidiary element, the Commission notes that the combined entity's incentives are reinforced by Tradeweb's commercial attractiveness.

(2538) To assess the incentives to foreclose customers, the Commission considers whether the upstream entity of the combined entity is less efficient, or otherwise provides less attractive products, than its upstream rivals.[3156] Rather than being less efficient/attractive, Tradeweb is a credible and strong player in the upstream market of trading services for OTC IRDs. The market shares of Tradeweb ([60-70]% when considering D2C electronic only market shares) are illustrative of its market power and success in that market. In fact, Tradeweb is the most successful player for trading services of D2C OTC IRDs, distantly followed by Bloomberg (which has a market share of ca. [20-30]%).[3157]

(2539) The very high switching rates at trading level described in recital (2526) above are also clear evidence of Tradeweb's credibility and attractiveness as an upstream competitor, enabling Tradeweb to recapture a significant amount of any diverted trade flows upstream.

(2540) The fact that the combined entity is not less efficient or less attractive than its competitors is also clearly demonstrated by some responses to the market investigation that indicate that Tradeweb offers access to a unique customer base and also provides more sophisticated technical integration for customers (e.g. with respect to order and execution management systems) than its competitors. For example, Eurex states: *"[The competitor's] dependence on Tradeweb is because Tradeweb's D2C trading platform is uniquely placed as the gatekeeper for key buy-side trading, in particular due to its strength in asset managers, pension funds, insurance firms and hedge funds (the so-called "long" buyside). As is well-*

3154 See switching trends presented in Section 4.5.7.1.B.2.1. above.

3155 The Notifying Party rejects the calculation of diversion ratios based on market shares because the methodology allegedly does not account for competition in the clearing market and does not account for the magnitude of cleared trades of buy-side and sell-side customers. However, the Commission notes that the differentiation between buy-side and sell-side customers was not made anywhere else in the model.

3156 Non-Horizontal Merger Guidelines, paragraph 69.

3157 Form CO, Interest-rate derivatives chapter, Annex 5.

documented, Tradeweb has a market share of approximately 60% for D2C traded OTC derivatives and is significantly stronger for the "long" buy-side."[3158] Eurex submits as well that Tradeweb offers sophisticated integration via application programming interfaces ("APIs"): *"Tradeweb's competitive strength is in its open architecture, which means that it offers application programming interfaces ("APIs") to which its customers can directly connect their existing trading systems, including front office order management systems (e.g. OMS / EMS systems), middle office risk and position management systems, and back office processing systems. Tradeweb's open architecture has enabled the development of low-touch automated and algorithmic trading for more liquid D2C markets, with the sell-side (i.e. global, regional banks and market maker firms) able to integrate latency-sensitive automated quote- and streaming machines for liquidity provisions. This is in contrast to venues such as Bloomberg, which is based on a terminal model, and thus have been slower to offer market participants the same level of integration with their systems (with a significant gap still remaining)."*[3159]

(2541) Furthermore, Tradeweb has a very significant market share in the upstream market (even under the broader market definition comprising electronic and voice trading, Tradeweb's share is […] the size of its next competitor).[3160] The high market share in the upstream market would suggest that the upstream division of the combined entity can benefit from higher price levels in the upstream market arising as a result of upstream rivals being foreclosed.[3161]

B.2.5. Absence of significant market changes since the launch of MTS Swaps

(2542) As explained in recitals (2240) ff, according to the Notifying Party, should there be incentives for the combined entity to foreclose Tradeweb's rivals post-Transaction, LSEG would have already engaged in such foreclosure strategies in favour of MTS Swaps, which it did not.

(2543) The Commission considers that the absence of past foreclosure behaviour on the part of LSEG when it launched MTS Swaps does not evidence the absence of incentives for the combined entity to engage, post-Transaction, in customer foreclosure strategies in favour of Tradeweb. This is because a number of key market circumstances and dynamics that applied at the launch of MTS Swaps in 2014 (and made a foreclosure strategy less likely to be successful) are today inapplicable (which increase the potential gains of the Customer foreclosure strategies), in particular the following facts:

(a) The OTC IRD trading and clearing markets have significantly increased since the launch of MTS Swap (they more than doubled between 2016 and 2019 alone).[3162] As such, the scope of a customer foreclosure strategy has more than doubled since 2014 when LSEG launched MTS Swaps.

3158 Question 27, Questionnaire 2 to CCP competitors, Doc ID 6473.

3159 Submission by DBAG dated 27 May 2020, Doc ID 3878.

3160 [20-30]% in terms of notional traded in a global OTC IRD trading market YTD 2019 if a market comprising voice trading is considered – however, even in that scenario, Tradeweb is by far the single strongest competitor, ahead of Bloomberg with [10-20]%, see Form CO, paragraph C.V. 144. The market shares when number of trades are considered instead are [20-30]% for Tradeweb and [10-20]% for Bloomberg.

3161 Non-Horizontal Merger Guidelines, paragraph 70.

3162 See https://www.bis.org/publ/qtrpdf/r_qt1912i.htm (last accessed on 23 September 2020).

(b) Many types of OTC IRD contracts have been made subject to the mandatory clearing obligation since 2014.[3163] As such, the scope of a customer foreclosure strategy has more than doubled since 2014 when LSEG launched MTS Swaps.

(c) Electronic OTC IRD trading was much less used by customers (it represented [20-30]% of the overall OTC IRD trading market,[3164] compared to now ca. [40-50]%) so the potential gains of a foreclosure strategies were more limited; and

(d) In 2014, MTS Swaps was a new entrant in a market characterised by strong network effects, while Tradeweb is an established player, which already benefits from a strong commercial attractiveness (as explained in Section 4.5.36.1.B.2.4. above). While a customer foreclosure strategy is unlikely to be successful with a trading venue lacking of liquidity (as it was the case for MTS Swaps based on the feedback received during the market investigation), the prospect of success of a customer foreclosure strategy with the leading trading venue (such as Tradeweb for on-venue trading) is high.

(e) As the Non-Horizontal Merger Guidelines outline, "[t]*he incentive to engage in customer foreclosure further depends on the extent to which the upstream division of the merged entity can benefit from possibly higher price levels in the upstream mark*et". In the 2014 situation where LCH SwapClear was vertically linked with MTS Swaps, MTS Swaps' market position was not such that LCH SwapClear could expect a substantive benefit from possibly higher price levels in the upstream market. This is confirmed by Deutsche Börse, in its observations on the Statement of Objections: *"Absent liquidity on MTS Swaps, a customer foreclosure strategy would have risked potential losses at LCH SwapClear (albeit unlikely) for the even lower prospect of attracting trading volumes to MTS Swaps, in particular during a phase where client clearing just started on the back of the EMIR clearing obligation which effectively started in 2016 in Europe*.".[3165] As such, Tradeweb's market position provides incomparably larger prospects for substantial gains upstream resulting from a potential customer foreclosure strategy (all the more so than the OTC IRD trading and clearing markets as a whole have more than doubled since that time).

(2544) The combined entity's competitors confirmed the Commission's conclusion that the absence of past customer foreclosure strategies on the part of LSEG when it was active also in trading, does not evidence the absence of incentive for the combined entity to engage in the Customer foreclosure strategies post-Transaction.

(2545) First, in its observations to the Commission's Statement of Objections, Deutsche Börse indicates that "*LSEG's operation of MTS Swaps is irrelevant in assessing whether LSEG would have the ability and the incentive to foreclosure Tradeweb's rivals*",[3166] especially because MTS Swaps "*never got off the ground, failing to attract any meaningful liquidity*" while Tradeweb is an attractive trading venue for customers. In the same vein, Bloomberg considers that "*[…]*"[3167] because "*[…]*". [3168]

3163 See https://www.esma.europa.eu/sites/default/files/library/public_register_for_the_clearing_obligation_under_emir.pdf (last accessed on 23 September 2020).

3164 RFI 19 reply, question 3.

3165 Deutsche Börse AG's Observations on the Statement of Objections, 28 October 2020, Doc ID 7083.

3166 Deutsche Börse AG's Observations on the Statement of Objections, 28 October 2020, Doc ID 7083.

3167 Bloomberg's Observations on the Statement of Objections, 28 October 2020, Doc ID 8374.

3168 Bloomberg's Observations on the Statement of Objections, 28 October 2020, Doc ID 8374.

Similarly, in Bloomberg's view, the incentive to engage in a customer foreclosure strategy is significantly stronger where, as with the vertical integration between LCH SwapClear and Tradeweb, the upstream entity has an established position because the prospect to earn significantly greater upstream margins increases.

(2546) Second, in its observations Deutsche Börse also raises the fact that, while at the time of the launch of MTS Swaps in 2013/2014, *"the venue never got off the ground, failing to attract any meaningful liquidity"*.[3169] This is clearly indicative of the fact that the market position Tradeweb enjoys nowadays (on a market that is more than twice as big in size) is in no way comparable to MTS Swaps' situation in 2014. As such the incentives the combined entity would have to engage in a customer foreclosure strategy involving Tradeweb upstream cannot be compared to the ones LSEG may have had back in 2014 to engage in a similar strategy involving MTS Swaps upstream.

B.3. Impact of customer foreclosure on effective competition

(2547) Based on the results of the market investigation the Commission considers that the Customer foreclosure strategies that the combined entity would have the ability and incentives to engage in, would have an adverse impact on effective competition.

(2548) According to the Non-Horizontal Merger Guidelines, foreclosing rivals in the upstream market may have an adverse impact in the downstream market, *e.g.* by denying competitive access to a significant customer base for the foreclosed rivals' (upstream) products and/or the upstream market, *e.g.* by raising barriers to entry to potential competitors.[3170]

(2549) In the present case, the Customer foreclosure strategies, which the combined entity has the ability and incentives to engage in post-Transaction, will likely have an adverse effect in the upstream market for the provision of OTC IRD trading services (and its possible sub-segments, in particular the market for the provision for D2C OTC IRD trading services), and possibly in the downstream market for the provision of OTC IRD clearing services (and its possible sub-segments) by ricochet. This Section assesses the overall likely impact on effective competition of the Customer foreclosure strategies whereby LCH SwapClear would (i) deny access for clearing to D2C OTC IRD trades executed on trading venues of Tradeweb's rivals; (ii) deny access for clearing to D2C OTC IRD trades executed on trading venues of Tradeweb's rivals and via middleware providers such as MarkitWire; (iii) increase clearing charges for D2C OTC IRD trades executed on trading venues of Tradeweb's rivals; (iv) degrade the quality, or impose disadvantageous technical or operational requirements for D2C OTC IRD trades executed outside of Tradeweb's venues; or (v) prevent innovation by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new DC2 OTC IRD products.

(2550) Overall, feedback received during the market investigation confirms that such foreclosure strategies would have a likely negative impact on competition in the upstream market for OTC IRD trading services (and its possible sub-segments, in particular the market for the provision for D2C OTC IRD trading services).

3169 Deutsche Börse AG's Observations on the Statement of Objections, 28 October 2020, Doc ID 7083.

3170 Non-Horizontal Merger Guidelines, paragraphs 72-77.

B.3.1. A refusal to clear would allow the combined entity to profitably raise prices and would result in the creation or strengthening of a dominant position upstream in OTC IRD trading

(2551) A customer foreclosure strategy whereby LCH SwapClear would deny access for clearing trades executed on Tradeweb's D2C rivals' trading venues, or a customer foreclosure strategy whereby LCH SwapClear would deny access for clearing D2C trades executed on trading venues of Tradeweb's rivals or via middleware providers would strengthen, or depending on the precise product market definition, create a dominant position in the trading of OTC IRDs[3171] in favour of Tradeweb. As such, the Transaction would allow the combined entity to profitably increase prices in OTC IRD trading and more generally to harm competition.[3172]

(2552) Indeed, by denying access to LCH SwapClear to trades executed on Tradeweb's D2C rivals' trading venues, Tradeweb's trading venues will acquire a significant competitive advantage: namely being the only venue where clearing at LCH SwapClear is possible. This is a very substantial competitive advantage because, as explained in Section 4.5.36.1.B.1. above, not only LCH SwapClear is the dominant OTC IRD CCP, but it is also customers' preferred CCP and customers are extremely reluctant to switch CCPs. In addition, by denying access to LCH SwapClear to trades executed via middleware providers such as MarkitWire, Tradeweb would attract a large number of new trades that until now were executed off-venue.

(2553) *First*, the results of the market investigation clearly evidence that LCH SwapClear is the preferred and most used CCP for OTC IRDs (as also explained in Section 4.5.36.1.B.1. above). LCH SwapClear is the CCP the most used by customers, as evidenced by its market shares and the response of customers to the market investigation.[3173] By way of example, Danske Bank A/S, a sell-side customer explains: "*We use LCH SwapClear. We have decided to systematically clear all clearing eligible products apart from inflation linked products. We chose LCH SwapClear based on the available liquidity and pricing in the products we use*" and Société Générale, a sell-side customer as well, states: "*Our preferred CCP is LCH. It still is the main CCP in the EEA and the largest for the €. When trading with clients we will use the CCP they wish. In the interbank market the default CCP is still LCH by far*".[3174]

(2554) *Second*, the results of the market investigation provide clear evidence that switching trading venues is considerably easier than switching CCPs. By way of example, Danske Bank A/S explains: "*We consider venue and CCP decisions independently, but have a pre-condition on the venue decision that our preferred CCP is supported. Currently LCH SwapClear dominates the market on the type of transactions we are executing and we do not have active need to move away from LCH SwapClear. Therefore CCP selection currently takes precedence over the venue decision and we*

3171 Regardless of whether the precise market definition, i.e. whether looking at (i) D2C or D2D+D2D trading channels, (ii) on-venue or on-venue +off-venue trading, (iii) certain types of contracts or currencies, (iv) the EEA or globally.

3172 E.g. not reduce prices that would have been reduced absent the merger, degrade the quality of services, or limit innovation)

3173 See e.g., Question 29.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470. See also Question 36.1, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

3174 Question 29.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470, responses of Dankse Bank A/S and Société Générale.

would need to reconsider the venue should there be any issues connecting to LCH SwapClear".[3175]

(2555) The fact that switching trading venue is by far easier and preferred by customers than switching CCP is confirmed by a body of evidence collected during the market investigation, and in particular the following: (i) 72% of customers would most likely switch their OTC IRD trading to a different trading venue with better connection to their preferred CCP in case of a deterioration of connectivity between a trading venue and their preferred CCP;[3176] (ii) no customer would stay with the same trading venue and switch CCP in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP (63% of customers would switch trading venue and 3% of them would remain with the trading venue and their preferred CCP);[3177] (iii) 80% of customers would most likely switch their OTC IRD trading to a different trading venue offering those new products for trading and clearing in their preferred CCP in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP;[3178] (iv) 59% of customers would most likely switch their OTC IRD trading to a different trading venue where clearing costs remained lower when clearing in their preferred CCP in case clearing costs increased of 5-10% as a result of trading OTC IRDs on their usual trading venue and clearing in their preferred CCP;[3179] (v) 75% of customers would continue to clear with LCH SwapClear in a similar proportion but would switch their electronic trades towards Tradeweb and/or Dealerweb in case LCH SwapClear was no longer connected to OTC IRD trading venues except Tradeweb and Dealerweb;[3180] (vi) even in the event of a permanent increase of 5-10% in the cost of clearing OTC IRD trades in the CCP they currently use, only 3 buy-side customers (10% of respondents) and 1 sell-side customer (representing 6% of respondents) would you switch to another CCP.[3181]

(2556) *Third*, as evidenced by the figures mentioned in recital (2620) above, LCH SwapClear is an essential provider for an overwhelming proportion of customers. Very importantly, 75% of customers consider that if LCH SwapClear was no longer connected to D2C OTC IRD trading venues except Tradeweb they would continue to clear with LCH SwapClear in a similar proportion but would switch their D2C on-venue trades towards Tradeweb.[3182]

(2557) Given that Tradeweb's rivals' loss will be proportionate to the gains that Tradeweb will make as a result of the foreclosure strategy, Tradeweb's D2C rivals will likely lose 75% of their customer base of D2C OTC IRD cleared trades as an immediate consequence of a refusal to clear. In addition, given that the Notifying Party estimates that [a high percentage] of all OTC IRD trades were cleared in 2018,[3183] Tradeweb's rivals will likely lose [a significant percentage] (i.e. 75% of [a high

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3175 Question 23.1, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470, response of Dankse Bank A/S.

3176 Question 25, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3177 Question 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3178 Question 26, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3179 Question 28, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3180 Question 1, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3181 Question 34, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470. Question 41, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

3182 Question 34, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470. Question 41, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

3183 Form CO, paragraph C.V.391

percentage]) of their customer base of D2C OTC IRD (cleared and not cleared) trades as an *immediate* consequence of a refusal to clear strategy engaged by the combined entity.

(2558) It is important to note that the 59% figures is conservative for two reasons: (i) *first*, inter-venue switching (i.e. from competitors' venues to Tradeweb's venues) is arguably more important than switching from off-venue trading to Tradeweb;[3184] and (ii) *second*, the share of cleared OTC IRDs is expected to further grow with the upcoming phase-in of the uncleared margin rules, as explained in recital (2354) above. In light of these two elements put together, should the combined entity deny access to LCH SwapClear to D2C trades executed with rival venues (or to D2C trades executed with rival venues or via middleware providers) post-Transaction, Tradeweb will become an essential provider for an overwhelming proportion of customers and OTC IRD trades. As such, Tradeweb will have a very strong market power for the pricing of OTC IRD trading services and would be able to profitably and durably increase prices as it will face a very limited constrains from its rival who will not have the essential feature to be connected to LCH SwapClear.

(2559) *Fourth*, as an *indirect* consequence, owing to the importance of network effects, economies of scale, and the best execution obligation, Tradeweb's D2C rivals will likely be forced to exit the market), therefore strengthening Tradeweb's dominance in D2C on-venue OTC IRD trading, which could even lead to the creation of a monopoly in case Tradeweb's rivals fully exit the market (or creating Tradeweb's dominance in on-venue OTC IRD trading).[3185]

(a) Firstly, OTC IRD trading is characterised by network effects because customers choose their venue based on liquidity, i.e. the best bid-ask spreads, while liquidity increases as the number of customers providing or requesting quote on a venue increases. These effects are strengthened by the best execution rules established in MiFID. This obligation requires dealers executing orders on behalf of clients to execute a trade obtaining "*the best possible result*", taking into account trading and clearing costs, unless clients specify that they have preference for a certain venue or CCP.[3186] All else equal, the more market participants trade on the same venue, the higher the liquidity, resulting in lower bid-ask spreads (and lower execution costs), and in the obligation for dealers to execute a D2C trade in this venue, unless otherwise requested by the client.

(b) Secondly, OTC IRD trading is a market where economies of scale are strong. Indeed, trading venue business consists in providing an infrastructure and the associated functionalities, with very low marginal costs associated with having one additional customer, and making profit out of it by having as many customers as possible trading on their platform. By losing a significant share of their sales, Tradeweb's D2C rivals will lose the economies of scale that constitute the cornerstone of their business.

3184 Question 2, Questionnaire 22 to OTC IRD customers, Doc ID 6679.

3185 If Tradeweb's D2C rivals are forced to exit the market, the Transaction would significantly impede effective competition in the different plausible market definitions, in particular the provision of D2C (on- and off-venue) trading services, the provision of D2C and D2D on-venue trading services, or the provision of D2C+D2D (on- and off-venue) trading services. In all these plausible markets, the Transaction would eliminate Tradeweb's closest competitors and provide very strong market power to the combined entity.

3186 Art. 27 (1), MiFID.

(2560) Rival trading venues described this spill-over effect in the course of the market investigation. For instance, Bloomberg explains "A*pproximately [CONFIDENTIAL]% of cleared IRDs trading on Bloomberg venues clear at LCH. In the event that Bloomberg venues were to lose connectivity to LCH, we would anticipate that [CONFIDENTIAL]% of customers would switch overnight to a venue that did have such connectivity. [CONFIDENTIAL] when considering the operational cost versus scale of inquiry from liquidity takers, the remaining liquidity providers (dealers) would likely determine that it would be uneconomic to continue to use Bloomberg venues for their IRD trading. Those dealers would then also withdraw from Bloomberg's venue"* (emphasis added). [3187] In adding, a competitor of Tradeweb who requested anonymity explains: "*For these reasons, our clients are very unlikely to be prepared to move away from the dominant CCP for any particular OTC IRD product and, so in the case of Swapclear, if we lost our connection, the clients would likely move to another [CONFIDENTIAL]. Therefore, limiting our access to Swapclear has the effect of foreclosing our venue*" (emphasis added). [3188]

(2561) Therefore, given the combination of the facts that (i) customers prefer to switch trading venues than CCPs and that (ii) OTC IRD trading is characterised by strong network effects and economies of scale, the Transaction will likely lead to a dominance of Tradeweb in on-venue OTC IRD trading (and possibly a monopoly in the D2C segment). As such, in light of the pricing power that goes along with a dominant or monopolistic market, the Transaction will likely result in an increase of prices of consumers.

(2562) In addition, as regards the Notifying Party's argument that the SO provides no evidence to substantiate its contention that the loss of economies of scale would be such that it would realistically lead rival trading venues to exit the market, the Commission further considers that the conjunction of (i) the brutal loss of 59%-80% of volumes with (ii) the further negative feedback loop (whereby a decrease in the number of parties trading on a given platform results in a decrease of the liquidity on this platform, which translates into wider bid-ask spreads, a decreased attractiveness, and *in fine* even more volume and activity reduction),[3189] (iii) the decreased revenues for the trading venue which in turn would put pressure on the trading venue's ability to undertake the necessary investment (for instance in new products or enhanced workflow possibilities) in order to match its competitors' offerings and maintain its attractiveness[3190] and (iv) the downward price pressure from customers willing to renegotiate their fees in order to account for the decreased attractiveness of the trading venue,[3191] are in themselves more likely than not to cause a trading venue targeted by one of the customer foreclosure strategies to eventually exit the market.

3187 Question 1, Questionnaire to Bloomberg on OTC IRD trading and clearing of 29 July 2020, Doc ID 5692.

3188 Response to the Commission's Phase II questionnaire to trading competitors by a trading competitor who requested anonymity; Doc ID 6694.

3189 See Section 4.5.36.1.B.3.3. below for a more detailed description of the underlying mechanisms of this feedback loop

3190 See Section 4.5.36.1.B.3.3. below for a more detailed description of the decreased revenues and how these would in turn put pressure on the trading venue's ability to undertake the minimum necessary ongoing investment

3191 As mentioned for instance by UBS, when asked what it would do if one of the venues on which it is currently providing quotes had an overall reduction in activity: "*trading platform fees would then need to be reassessed.*" – see Question 35 of Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

(2563) For the sake of completeness, the Commission considers that the impact of a refusal to clear D2C trades executed on trading venues of Tradeweb's rivals would be adverse on effective competition regardless of the precise market definition for the following reasons.

(a) In the market for D2C OTC IRD on-venue trading (be it EEA-wide or worldwide, or segmented by type of contract), the Transaction will likely lead to the strengthening of Tradeweb's dominant position, which would lead to a monopoly in case Tradeweb's D2C rivals, including Bloomberg, would be forced to exit the market.

(b) In the broader D2C OTC IRD trading market (be it EEA-wide or worldwide, or segmented by type of contract), including both on-venue and off-venue trading, the Transaction will likely lead to the elimination of Tradeweb's closest competitors, namely the D2C trading venues (in particular Bloomberg), which constitute the main competitive constraint faced by Tradeweb.

(c) In the overall (D2C+D2D) OTC IRD (be it EEA-wide or worldwide, segmented by type of contract, or segmented between on-venue and off-venue trading), the Transaction will likely lead to the elimination of Tradeweb's closest competitors, namely the D2C trading venues (in particular Bloomberg), which constitute the main competitive constrain faced by Tradeweb. The Transaction could also likely lead to a foreclosure of non-D2C venues (i.e. D2D venues), as evidenced by the complaint raised by a D2D player (see for instance recital (2625) above). In addition, the D2C+D2D OTC IRD on-venue trading market the Transaction would create a dominant position.

(2564) Further, the Commission considers that the impact of a refusal to clear D2C trades executed on trading venues of Tradeweb's rivals and via middleware providers would be even more adverse than the impact described in recital (2628) above. While the impact of such a foreclosure strategy on on-venue trading would be similar to the impact of a refusal to clear D2C OTC IRDs executed on trading venues of Tradeweb's rivals alone, the impact on the broader segments including on-and off-venue trading services would be even more adverse as in this case Tradeweb's venues would attract the D2C OTC IRD trades that are currently traded off-venue but that are prone to the electronification, therefore reinforcing Tradeweb's market power in itself and vis-à-vis its current and potential competitors.

(2565) Based on the above, and the evidence available to it, the Commission therefore considers that a foreclosure strategies whereby LCH SwapClear would deny access for clearing (i) D2C OTC IRD trades executed on trading venues of Tradeweb's rivals or (ii) D2C OTC IRD trades executed on trading venues of Tradeweb's rivals and via middleware providers, will likely have a negative adverse effect on effective competition in the upstream market for OTC IRD trading, and its possible sub-segments.

B.3.2. Partial customer foreclosure strategies would allow the combined entity to profitably raise prices and would result in the creation or strengthening of a dominant position upstream in OTC IRD trading

(2566) A partial customer foreclosure strategy whereby LCH SwapClear would increase the price, technically degrade, or limit innovation for trades executed on the D2C trading

venues of Tradeweb's rivals would also create or strengthen a dominant position in the trading of OTC IRDs[3192] in favour of the combined entity.

(2567) As such, the Transaction would allow the combined entity to profitably increase prices in OTC IRD trading and more generally to harm competition (e.g. not reduce prices that would have been reduced absent the merger, degrade the quality of services, or limit innovation).[3193]

(2568) *First*, a price-based foreclosure strategy, whereby LCH SwapClear's clearing cost would be higher for trades executed on Tradeweb's D2C rival trading venues will divert a large share of customers away from Tradeweb's rivals. Indeed, the results of the market investigation indicate that 59% of customers would most likely switch their OTC IRD trading to a different trading venue where clearing costs remained lower when clearing in their preferred CCP in case clearing costs increased of 5-10% as a result of trading OTC IRDs on their usual trading venue and clearing in their preferred CCP.[3194] As such, Tradeweb's rivals would lose around 59% of their customer base for D2C OTC IRD cleared trades in case the combined entity engages in price-based foreclosure.[3195] Given that the Notifying Party estimates that [a high percentage] of all OTC IRD trades were cleared in 2018,[3196] Tradeweb's rivals will likely lose [a significant percentage] (i.e. [a significant percentage] of [a high percentage]) of their customer base of D2C OTC IRD (cleared and not cleared) trades as an *immediate* consequence of a price-based foreclosure strategy engaged by the combined entity.[3197] As explained in recital (2623), this [a significant percentage] figure is doubly conservative because (i) inter-venue switching is arguably higher (than switching from off-venue trading to on-venue trading) and (ii) the share of cleared OTC IRD trades is expected to increase in the near future. This loss would likely have an extremely detrimental effect for their business owing to the importance of network effects, economies of scale, and the best execution obligation, for the very same reasons than those exposed in recital (2624) above.

(2569) *Second*, a technical-foreclosure strategy, whereby LCH SwapClear would (i) impose stricter operational or technical requirement on or (ii) degrade the quality, *e.g.* in terms of trading speed, of the DC2 trading venues of Tradeweb's rivals, will divert an even larger share of customers away from Tradeweb's rivals. Indeed, the results of the market investigation indicate that (i) 72% of customers would most likely switch their OTC IRD trading to a different trading venue with better connection to

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3192 Regardless of whether the precise market definition, i.e. whether looking at (i) D2C or D2D+D2D trading channels, (ii) on-venue or on-venue +off-venue trading, (iii) certain types of contracts or currencies, (iv) the EEA or globally.

3193 Non-Horizontal Merger Guidelines, paragraph 72.

3194 Question 28, Questionnaire 21 to OTC IRD customers, Doc ID 6472. The Commission notes that, while for D2C trades the decision of where to trade and clear OTC IRDs primarily lies with clients (i.e. the buy-side), a larger number (i.e. 68%) of buy-side customers indicate that they would most likely switch their OTC IRD trading to a different trading venue where clearing costs remained lower when clearing in their preferred CCP in case clearing costs increased of 5-10% as a result of trading OTC IRDs on their usual trading venue and clearing in their preferred CCP.

3195 Based on the responses of the buy-side customers, the trading venues of Tradeweb's rivals would lose around 68% of their customer base for D2C OTC IRD cleared trades in case the combined entity engages in price-based foreclosure.

3196 Form CO, paragraph C.V.391

3197 Based on the responses of the buy-side customers, the trading venues of Tradeweb's rivals would lose around [a significant percentage] (i.e. [a high percentage] of [a high percentage]) of their customer base of D2C OTC IRD (cleared and not cleared) trades as an *immediate* consequence of a price-based foreclosure strategy engaged by the combined entity.

their preferred CCP in case of a deterioration of connectivity between a trading venue and their preferred CCP;[3198] 62% of customers would switch trading venue in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP without trying to negotiate or retaliate.[3199] As such, Tradeweb's rivals would lose between 62-72% of their customer base for D2C OTC IRD cleared trades in case the combined entity engages in technical foreclosure.[3200] Given that the Notifying Party estimates that [a high percentage] of all OTC IRD trades were cleared in 2018,[3201] Tradeweb's rivals will likely lose between [a significant percentage] (i.e. 62% of [a high percentage]) and [a significant percentage] (i.e. 72% of [a high percentage]) of their customer base of D2C OTC IRD (cleared and not cleared) trades as an *immediate* consequence of a technical foreclosure strategy engaged by the combined entity.[3202] As explained in recital (2623), this [a significant percentage] figure is doubly conservative because (i) inter-venue switching is arguably higher (than switching from off-venue trading to on-venue trading) and (ii) the share of cleared OTC IRD trades is expected to increase in the near future. This loss would likely have an extremely detrimental effect for their business owing to the importance of network effects, economies of scale, and the best execution obligation, for the very same reasons than those exposed in recital (2624) above.

(2570) *Third*, an innovation-based-foreclosure strategy, whereby LCH SwapClear would deny or degrade LCH SwapClear's cooperation to rival trading venues for the introduction of new products, will divert an even larger share of customers away from Tradeweb's rivals. Indeed, the results of the market investigation indicate that 80% of customers would most likely switch their OTC IRD trading to a different trading venue offering those new products for trading and clearing in their preferred CCP in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP.[3203] As such, Tradeweb's rivals would could lose 80% of their customer base (for D2C OTC IRD trades cleared) in case the combined entity engages in innovation foreclosure. Given that the Notifying

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3198 Question 25, Questionnaire 21 to OTC IRD customers, Doc ID 6472. The Commission notes that, while for D2C trades the decision of where to trade and clear OTC IRDs primarily lies with clients (i.e. the buy-side), a larger number of buy-side customers (namely, 84%) would most likely switch their OTC IRD trading to a different trading venue with better connection to their preferred CCP in case of a deterioration of connectivity between a trading venue and their preferred CCP.

3199 Question 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472. The Commission notes that, while for D2C trades the decision of where to trade and clear OTC IRDs primarily lies with clients (i.e. the buy-side), a slightly larger number of buy-side customers (namely, 64%) would switch trading venue in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP without trying to negogiate or retaliate.

3200 Based on the responses of the buy-side customers, the trading venues of Tradeweb's rivals would lose between 64-84% of their customer base for D2C OTC IRD cleared trades in case the combined entity engages in technical foreclosure.

3201 Form CO, paragraph C.V.391

3202 Based on the responses of the buy-side customers, the trading venues of Tradeweb's rivals will likely lose between [a significant percentage] (i.e. 64% of [a high percentage]) and [a high percentage] (i.e. 84% of [a high percentage]) of their customer base of D2C OTC IRD (cleared and not cleared) trades as an *immediate* consequence of a technical foreclosure strategy engaged by the combined entity.

3203 Question 26, Questionnaire 21 to OTC IRD customers, Doc ID 6472. The Commission notes that, while for D2C trades the decision of where to trade and clear OTC IRDs primarily lies with clients (i.e. the buy-side), a slightly larger number of buy-side customers (namely, 81%) would most likely switch their OTC IRD trading to a different trading venue offering those new products for trading and clearing in their preferred CCP in case new OTC IRD products were not available for trading on their usual trading venue and clearing at their preferred CCP.

Party estimates that [a high percentage] of all OTC IRD trades were cleared in 2018,[3204] Tradeweb's rivals will likely lose [a significant percentage] (i.e. 80% of [a high percentage]) of their customer base of D2C OTC IRD (cleared and not cleared) trades as an *immediate* consequence of an innovation-based foreclosure strategy engaged by the combined entity. As explained in recital (2623), this [a significant percentage] figure is doubly conservative because (i) inter-venue switching is arguably higher (than switching from off-venue trading to on-venue trading) and (ii) the share of cleared OTC IRD trades is expected to increase in the near future. This loss would likely have an extremely detrimental effect for their business owing to the importance of network effects, economies of scale, and the best execution obligation, for the very same reasons than those exposed in recital (2624) above.

(2571) The fact that upstream trading competitors would lose customers to such a point that it would severely hinder upstream rival's ability to compete effectively is clearly described by Bloomberg. In general terms, this is explained in recital (2625) above. With regard to the technical foreclosure strategy specifically, Bloomberg explains: *"[…]"*[3205]

(2572) The majority of relevant clearing competitors[3206] expect a negative impact of the transaction, and no clearing competitor at all expects a positive impact of the transaction with regard to the trading and clearing of OTC IRDs. As mentioned by BME, a rival CCP, *"It would concentrate and increase the monopolistic position of LCH Swapclear (and its systemic risk) and in a lesser way of Refinitiv as a market data provider and Trading Venue. This, by definition, is bad for the market."*[3207]

(2573) At trading level, none of the trading venues which responded to the relevant questionnaire provided non-confidential answers to the relevant question regarding their expectations on the overall impact the Transaction might have on the market for OTC IRD trading. Bloomberg nonetheless states: *"The merged LSEG/Refinitiv entity would also be able to use its market power at the clearing level for IRDs to foreclose access to its clearing services for the trading venues that rely on it. The merged entity might do this by combining the offer of IRD trading on Tradeweb and IRD clearing with LCH. Such a strategy could seriously threaten market participants' IRD trading businesses, thereby eliminating competition at the trading level in favour of Tradeweb."*[3208]

(2574) Among the customers, responses are less unidirectional but still reflect serious concerns with a majority expressing neutral expectations. While 20% of buy-side customers expect a positive impact from the merger (53% of them expect a neutral impact and 7% of them expect a negative impact),[3209] the sell-side has slightly more negative expectations (16% of them expect a negative impact, 68% of them expect a neutral impact, and 5% of them expect a positive impact).[3210] One buy-side customer, Achmea B.V., states: "*Both LCH and Tradeweb are part of the value chain of*

3204 Form CO, paragraph C.V.391

3205 Bloomberg's response to the Commission's Phase II additional questions to trading competitors; Doc ID 6629.

3206 2 out 3 clearing competitors with direct connections to Tradeweb – see question 27, Questionnaire 2 to CCP competitors, Doc ID 6473.

3207 Question 27, Questionnaire 2 to CCP competitors, response of BME, Doc ID 6473.

3208 Question 28, Questionnaire 4 to trading venue competitors, Doc ID 6475.

3209 Question 39, Questionnaire 1 to OTC IRD buy-side customers, Doc ID 6470. For completeness, 20% of the buy-side customers answer "*I do not know*".

3210 Question 46, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474. For completeness, 11% of the sell-side customers answer "*I do not know*".

trading and clearing interest rate derivatives. The proposed merger concerns a vertical integration between two providers that are already powerful within their respective markets. Tradeweb has a large market share in electronic trading and LCH has a very large market share clearing EUR interest rate swaps. Economic theory predicts that integration between these companies may result in increased incentives for foreclosure in both markets. There may not be any benefits for clients in relation to efficiencies from vertical integration that could potentially offset the negative effect of foreclosure: Economic theory also predicts that given the already existing market power – which will only be enhanced following the proposed merger – there may be little incentive to pass-on any efficiencies to clients."[3211] Similarly, Nomura International Plc, a sell-side customer, explains that: *"NIP considers that the Transaction is likely to result in reduced competition in respect of trading venues and the provision of market data"*[3212] Other important sell-side players, such as Société Générale (*"We are concerned by this transaction as it could create a dominant player in the market in which there is already a lack of competition"*)[3213] and Unicredit (*"Our company believes that Refinitiv still holds a controlling stake in Tradeweb. The proposed transaction will bring Tradeweb and LCH (the dominant CCP for IRD) together under LSEG. The Commission should consider that Tradeweb may favour LCH over other competing CCPs"*)[3214] have voiced concerns about potential vertical effects arising from the combination of Tradeweb and LCH SwapClear.

B.3.3. The Customer foreclosure strategies would have adverse impacts on effective competition in OTC IRD trading

(2575) *First*, all the envisaged foreclosure scenarios would impact upstream rivals, by reducing their incentives to make investments in cost reduction, product quality or in other competitive dimensions so as to remain competitive.[3215] The necessity for trading venue to make frequent and substantial investments (in particular in relation to the introduction of new products) and the reduced incentive to engage in such investments as a result of a potential decline in the utilization of their trading venue,[3216] was particularly well documented in the course of the market investigation. As mentioned above, Bloomberg for instance stated that: *"Bloomberg would expect that a significant decline in utilization of its OTC IRD trading venues, on the order of say, 50%, and the related decline in liquidity would reduce significantly our competitiveness as a trading venue. Incentives to invest would also decline. We would expect remaining liquidity gradually to shift away from our venues in favour of venues which could offer deeper liquidity (and potentially better bid/offer spreads). Over time, our trading platform for OTC IRDs would become unsustainable"*[3217] (emphasis added). Another upstream competitor, TPICAP, describes as well how vital continual investments are to its business, and explains

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3211 Question 39.1, Questionnaire 1 to OTC IRD buy-side customers, response of Achmea B.V, Doc ID 6470.

3212 Question 46.1, Questionnaire 3 to OTC IRD sell-side customers, response of Nomura International Plc, Doc ID 6474.

3213 Question 46.1, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

3214 Question 46.1, Questionnaire 3 to OTC IRD sell-side customers, response of UniCredit SpA, Doc ID 6474.

3215 Non-Horizontal Merger Guidelines, paragraph 73.

3216 The fact that all foreclosure scenarios considered would result in a substantial decline in the utilization of rival trading venues upstream is demonstrated in Section 4.5.36.1.B.2.1 above.

3217 Bloomberg's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5692.

how a decrease in its revenue might not only decrease its incentives to invest, but also mechanically decrease the amount of investment it will be able to make in the future: *"Maintaining EBITDA and profitability levels is necessary to deliver our strategy and maintain financing. The competitiveness of the IRD OTC market means there is a large investment commitment required in our people, processes and technology with market share won and lost, depending on an ability to invest and investment choices. This reinforces the need to deliver technology through investment (drawn from EBITDA). Technology is key to 3 our strategic pillars as described in our Annual Report. Access to a revolving credit facility is essential to our operations and from a regulatory and risk perspective we could not operate in the OTC market without it. It contains covenants that are driven by levels of EBITDA and EBIT. Any decline in these ratios would restrict our ability to draw and any sustained decline would make it difficult to renew on favorable terms. A decline in EBITDA would also damage external credit rating assessments triggering increased costs on existing bond portfolio and would impact the cost and depth of any future DCM issuance."*[3218] (emphasis added)

(2576) As described by Bloomberg and TPICAP above, this decrease in the incentive to make investments would in particular affect technology. This would have the effect to delay the introduction of new products by Tradeweb's rivals. This delay in the introduction of new products would be further amplified in a scenario where LCH SwapClear would engage in a customer foreclosure scenario aiming at preventing innovation by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new products. Therefore, the Commission considers that, taking another step forward, the various foreclosure strategies considered in this section would not only have the effect of raising prices at trading level and decreasing Tradeweb's rivals' incentive to make investments, but would also be likely to delay the introduction of new products for trading. This effect could be amplified in the case of the specific customer foreclosure scenario aiming at preventing innovation by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new products.

(2577) As regards the Notifying Party's argument that the SO has provided no evidence on the extent to which reductions in trading volumes on rival D2C trading venues such as Bloomberg would lead dealers to quote wider bid-ask spreads, the Commission first notes that the fact that a decrease in the number of parties trading on a given platform results in a decrease of the liquidity on this platform, which translates into wider bid-ask spreads is a common knowledge in the industry, described and acknowledge for instance by Citadel: "*less dealers offering competitive prices translates to worse liquidity and less competition among dealers*".[3219] In addition, the Commission explicitly asked customers how they would react if one of the venues on which they are currently providing quotes had an overall reduction in activity, and the customer's feedback was unequivocal. For instance, Citadel clearly explains that: "*It is only possible to manage consistent provision of liquidity on a handful of platforms, so if clients started to use one materially less, it is possible that we would not quote on that platform as much.*"[3220] The feedback loop whereby losses in trading

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3218 TPICAP's response to the Commission's Phase II questionnaire to trading competitors; Doc ID 5510.

3219 Question 28, Questionnaire 1 to OTC IRD buy-side customers, response of Citadel, in the context of the assessment of the effects of the transition away from IBOR interest rate benchmarks on the OTC IRD trading markets, Doc ID 6470

3220 Question 35, Questionnaire 3 to OTC IRD sell-side customers, response of Citadel, Doc ID 6474.

volumes cause losses in liquidity (and wider bid-ask spreads), which in turn cause further disinterest in the platform is clearly evidenced (i) by responses from Société Générale ("*My company would adapt the size and aggressiveness of quotes*"[3221]) and Unicredit ("*our company would take into consideration different measures in quoting approach or would consider a switching to another Venue*"[3222]) regarding how a reduction in activity might impact dealers' incentives to quote narrow bid-ask spreads, and (ii) responses by Credit Suisse ("*If there is a limited liquidity of trading activity, we will be likely to trade less on those venues.*"[3223]) and ING ("*Depending on the scale of reduction of buy side clients, we may decide to withdraw from the venue.*"[3224]) regarding how a decrease in venue activity might trigger a further decrease in volumes by encouraging dealers to trade less or even withdraw entirely from the venue. The degree to which this negative feedback loop can cause a further decrease in the trading venue's activity, as well as its timeliness, would be likely to depend on the magnitude of the initial reduction in activity; but the Commission considers that with potential volume reductions of 59%-80%, there is no contention that the feedback loop would be more likely than not to result in a rapid and brutal further decrease in trading venues' activity, down to levels that would make the further maintaining of a trading infrastructure unsustainable for a trading competitor (in the event that the initial reduction in trading activity by 59%-80% would not have already in the first place caused volumes to drop below such a level).

(2578) As regards the Notifying Party's argument that the SO has not provided evidence that rival trading venues would not have the ability to take various steps (such as reducing their fees or investing more) in order to make their service more attractive, and fails to provide any evidence on rivals' existing profit margins or the extent to which their margins would fall as a result of any actions they would likely take in responding to the putative foreclosure strategies, the Commission's findings rely on the coherent and mutually reinforcing statements of three rivals of Tradeweb, including Tradeweb's main D2C rival Bloomberg, and representing a significant portion of the market.[3225] The fact that these statements are substantiated and coherent between them, read in conjunction with the fact that the foreclosure strategies are likely to make some of these players lose 59%-80% of their customer base (depending on the customer strategy considered), are the main reasons why the Commission finds that rival trading venues would lack counter-strategies in the event of a potential customer foreclosure scenario. The Commission also notes that in such a situation, not only the trading venues might be faced with a decrease in revenues proportional to their decrease in overall activity, but in addition, the trading venue might face pressure from its remaining customers to decrease its fees.[3226] In addition, the Commission considers that an important decrease in trading activity (such as one caused if 59%-80% of customers switched away to Tradeweb) would be likely to trigger a feedback loop that would further exacerbate the losses of the trading venues

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3221 Question 35, Questionnaire 3 to OTC IRD sell-side customers, response of Société Générale, Doc ID 6474.

3222 Question 35, Questionnaire 3 to OTC IRD sell-side customers, response of Unicredit, Doc ID 6474.

3223 Question 35, Questionnaire 3 to OTC IRD sell-side customers, response of Crédit Suisse, Doc ID 6474.

3224 Question 35, Questionnaire 3 to OTC IRD sell-side customers, response of ING, Doc ID 6474.

3225 There are only two rivals of Tradeweb in D2C electronic trading and six in D2D. Moreover, Bloomberg represents [80-90]% of the D2C electronic market that is not occupied by Tradeweb and TPICAP represents [10-20]% in D2D.

3226 As mentioned for instance by UBS, when asked what it would do if one of the venues on which it is currently providing quotes had an overall reduction in activity: "*trading platform fees would then need to be reassessed.*" – see Question 35 of Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

through a reduction of liquidity, lower bid-ask spreads, and a decrease of the attractiveness of the venue causing customers to switch away even larger volumes, and causing even larger losses to the trading venue. For these reasons, the Commission considers that it is more likely than not that rival trading venues would lack counter-strategies that they could implement as a reaction to the potential foreclosure strategies, and in particular would not have the ability to take various steps (such as reducing their fees or investing more in their workflow solutions) in order to make their service more attractive in this perspective.

(2579) As regards the Notifying Party's argument that the SO provides no evidence to substantiate a concern that the foreclosure strategies would deter rival trading venues from undertaking the minimum necessary ongoing investment, for the exact same reasons, the Commission further considers that it is more likely than not that a trading venue targeted by one of the customer foreclosure strategies would not be able financially to undertake the minimum ongoing investments (for instance in new products or enhanced workflow possibilities) that are necessary to ensure its viability. Moreover, since trading venues would not lack the ability to undertake the necessary investments, it is not even necessary for the Commission to conclude on whether they would be deterred from undertaking these investments.

(2580) *Second,* a large fraction of upstream output will likely be affected by the revenue decreases resulting from the vertical foreclosure strategy.[3227] This is because all the customer foreclosure scenarios would affect the entirety of upstream competitors in OTC IRD electronic trading, and there would not *"remain a number of upstream competitors that are not affected"* in such a way that *"competition from those firms may be sufficient to prevent prices from rising in the upstream market"*.[3228]

(2581) The results of the market investigation demonstrated in particular that LCH SwapClear would be in a position to implement a foreclosure strategy, including for electronic trades submitted via the intermediation of middleware providers such as MarkitWire, and that the existence of such middleware providers, as well as the associated trade flows, do not constitute a portion of the upstream output that could be exempt from the potential foreclosure strategies LCH SwapClear would put into place.[3229]

(2582) Going further into details, (i) a customer foreclosure strategy whereby LCH SwapClear would deny access for clearing to trades executed on trading venues of Tradeweb's rivals would apply to all rival trading venues, and would therefore affect the entirety of rival's upstream output, (ii) similarly, if LCH SwapClear decided to increase clearing charges for products traded at trading venues of Tradeweb's rivals , it could do so for all rival trading venues and for all trades coming from these trading venues (meaning, in particular, that whether or not these trades are submitted via a middleware provider such as MarkitWire would not be an obstacle[3230]), (iii) similarly, if LCH SwapClear decided to degrade the quality, or impose disadvantageous technical or operational requirements for clearing trades from rival trading venues, it would do so for all trading venues of Tradeweb's rivals and (iv) if LCH SwapClear decided to deny its cooperation to rival trading venues in relation to the development of new products for trading, it would of course be in a position to do

3227 Non-Horizontal Merger Guidelines, paragraph 74.
3228 Non-Horizontal Merger Guidelines, paragraph 74.
3229 See Section 4.5.36.1.B.1.3. above.
3230 See Section 4.5.36.1.B.1.3. above.

so for all trading venues of Tradeweb's rivals (LCH SwapClear being obviously in a position to decide with whom LCH SwapClear wishes or agrees to cooperate).

(2583) *Third*, effective competition on the upstream market would also be significantly impeded by raising barriers to entry to potential competitors.[3231] This is clearly evidenced by the example of MarketAxess, a potential competitor of Tradeweb, who mentions that it is *"not currently offering IRS trading services but any potential decision to do so in the future would be impacted if the transaction goes ahead as foreseen by LSEG and Refinitiv."*[3232] There is no other potential entrant for the trading of OTC IRD.

(2584) With respect to the recent entrant Trad-X, a minority of customers currently considers Trad-X to have a good chance to gain traction in the OTC IRD D2C trading market: 17% think that Trad-X can become an effective competitor in the next 2-3 years, 42% think "No", and 42% "it depends".[3233] Banco Santander, a sell-side customer, states for instance that *"The Value added proposal of Trad-X D2C is very limited, and they are not attracting clients or dealers. In general clients are very "sticky" to the incumbent platforms and not willing to change easily. They could become an effective competitor if they would be able to change their proposal and attract a significant number of clients."*[3234] UniCredit, another sell-side customer, is of the same opinion, mentioning the lack of dealers and clients as one of the main current limitations of Trad-X: *"Currently they have a limited presence of liquidity providers (3/4) and Clients (5/6) and a too small market share. They offer D2C in the Clob, but it's difficult they could leverage on it to push other services."*[3235] Based on these answers, it seems not impossible but unlikely that Trad-X will become an effective competitive constraint upstream in the near future.

(2585) *Fourth*, the downstream clearing market is characterised by the absence of countervailing factors such as the presence of countervailing buyer power or the likelihood that entry would maintain effective competition in the upstream or downstream markets.[3236] The lack of countervailing power is already clearly demonstrated in Section 4.5.36.1.B.1.1.7. above. The absence of likely entry and the high barriers to entries in the downstream clearing market is already addressed in Section 4.5.36.1.B.1.1.5. above.

(2586) *Fifth*, a customer foreclosure strategy whereby LCH SwapClear would deny access for clearing to trades executed on trading venues of Tradeweb's rivals would not result in any kind of efficiencies substantiated by the Parties to the Transaction.[3237] The same holds true for (i) a customer foreclosure strategy whereby LCH SwapClear would decide to degrade the quality, or impose disadvantageous technical or operational requirements for clearing trades from rival trading venues and (ii) a customer foreclosure strategy whereby LCH SwapClear would decide to deny its cooperation to rival trading venues in relation to the development of new products for trading.

3231 Non-Horizontal Merger Guidelines, paragraph 75.

3232 Minutes of pre-notification call with MarketAxess, held on 6 January 2020, 5 pm CET, Doc ID 523.

3233 Question 28, Questionnaire 3 to OTC IRD sell-side customers, Doc ID 6474.

3234 Question 28.1, Questionnaire 3 to OTC IRD sell-side customers, response of Banco Santander, Doc ID 6474.

3235 Question 28.1, Questionnaire 3 to OTC IRD sell-side customers, response of UniCredit, Doc ID 6474.

3236 Non-Horizontal Merger Guidelines, paragraph 76.

3237 Non-Horizontal Merger Guidelines, paragraph 77.

(2587) With respect to price-based customer foreclosure (i.e. a customer foreclosure strategy whereby LCH SwapClear would increase clearing charges for products traded at trading venues of Tradeweb's rivals), the Notifying Party submitted economic modellings (vGUPPI and equilibrium modelling) providing indications of potential efficiencies, in the form of elimination of double marginalization, resulting from the combination of the Parties' activities in trading and clearing of OTC IRD.[3238] However, the limitations of these modelling, as well as the reasons why the presented efficiencies are unlikely to overturn the potential harm arising from the Transaction, have been established in Section 4.5.36.1.B.2.3. above.

(2588) To conclude, the Commission considers that customer foreclosure strategies whereby LCH SwapClear would (i) deny access for clearing to trades executed on trading venues of Tradeweb's rivals; or (ii) increase clearing charges for products traded at trading venues of Tradeweb's rivals; or (iii) degrade the quality, or imposing disadvantageous technical or operational requirements for clearing trades from rival trading venues; or (iv) prevent innovation by denying or degrading LCH SwapClear's cooperation to rival trading venues for the introduction of new products – innovation foreclosure) are most likely to have an adverse impact in the upstream market for OTC IRD trading services.

C. Conclusion

(2589) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that following the Transaction the combined entity would have the ability and the incentive to engage in customer foreclosure strategies against Tradeweb's rivals for the provision of D2C OTC IRD trading services. The Commission concludes that such foreclosure would significantly impede effective competition on the market for the provision of OTC IRD trading services, and its possible sub-segments.

4.5.36.2. Assessment of input foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for over-the-counter interest-rate derivatives

(2590) As explained in recital (2233) above, Refinitiv is active through Tradeweb in the provision of trading services for OTC IRDs (upstream) via the venues of Tradeweb (focusing on D2C trades) and Dealerweb (focusing on D2D trades). Downstream, LSEG is active in the provision of clearing services for OTC IRDs through its clearing house LCH SwapClear.

(2591) The vertical link between the provision of trading (upstream) and clearing (downstream) services for OTC IRDs is affected upstream because Tradeweb's market share in the D2C electronic trading of OTC IRDs worldwide and in the EEA is above 30%. This holds true of all the possible sub-segments (*i.e.* by type of contract or currency) of D2C OTC IRD electronic trading. In addition, Tradeweb's market share on a potential overall market for the provision of trading services for D2C OTC IRDs encompassing voice trading as well would be above 30% for (i) OIS at global level, (ii) CAD-denominated OTC IRDs in the EEA, (iii) AUD-denominated OTC IRDs in the EEA, (iv) JPY-denominated OTC IRDs in the EEA, (v) USD-denominated OTC IRDs at globa level, (vi) GBP-denominated OTC IRDs

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[3238] Notifying Party's submissions "*M.9564 - LSEG/Refinitiv - IRD workshop - data submission"* dated 1 September 2020 and *"M.9564 LSEG / Refinitiv - IRD workshop - economic paper and further data submission"* dated 8 September 2020.

at globa level, (vii) CAD-denominated OTC IRDs at globa level, (viii) AUD-denominated OTC IRDs at globa level, (ix) JPY-denominated OTC IRDs at globa level, (x) CHF-denominated OTC IRDs at globa level. Conversely, Tradeweb's market shares in D2D trading is minimal, and would not give rise to any affected market in the D2D segment or any potential sub-segment thereof.[3239]

(2592) The Commission assessed whether the Transaction would lead to vertical concerns (input foreclosure). For the reasons set out below, the Commission considers that the Transaction does not give rise to such vertical (input foreclosure) concerns.

A. The Notifying Party's view

(2593) The Notifying Party submits that it is not plausible that it would foreclose competition from competing OTC IRD CCPs by withholding access to Tradeweb's trade feed, i.e. by forcing Tradeweb and Dealerweb customers to clear only through SwapClear, or by providing access to the flow from those trading platforms on disadvantageous conditions (compared to the conditions of access to SwapClear).[3240]

(2594) *First*, the Notifying Party considers that it will not have the ability to engage in such strategy because it could not impose on Tradeweb a foreclosure strategy that is not in its interest as (i) Tradeweb is governed by a Board of Directors that has to act in the interest of all shareholders, not just of the majority shareholder Refinitiv,[3241] and (ii) senior management determines Tradeweb's pricing strategy without interference or monitoring from Refinitiv. According to the Notifying Party, Tradeweb would be unlikely to increase prices or limit accessibility to other CCPs, as this would hurt its competitive position, and the other shareholders of Tradeweb would not support such a strategy.[3242]

(2595) In addition, while the Notifying Party admits that the combined entity could purchase the right to be the exclusive provider of OTC IRD clearing services to Tradeweb or have Tradeweb's customers clearing at SwapClear pay lower trading fees and/or receive higher trading quality, it considers that this agreement would be possible outside the Transaction, and hence is not merger-specific.[3243]

(2596) *Second*, the Notifying Party highlights that any attempt to refuse access in a discriminatory way would be against its regulatory obligations (Art. 8 EMIR and Art.

3239 The Commission notes notheless that the analysis below does not depend on the precise product or geographic market definition for the trading or clearing of OTC IRDs. This is essentially because the clearing of OTC IRDs is not segmented downstream by trading channel (D2C vs D2D) or execution method (on-venue vs off-venue), and the clearing of OTC IRDs belonging to either segment does not differ. As a result, the Commission considers that Tradeweb would lack the market power upstream (*i.e.* on the overall D2C + D2D, on-venue + off-venue OTC IRD trading market, irrespective of whether this market is segmented by type of contract or type of currency) necessary to engage in a traditional input foreclosure strategy. The Commission nonetheless examines in this section two different, more specific, types of input foreclosure strategies (namely (i) the denial of cooperation in relation to the introduction of new products and (ii) the denial of access to Tradeweb's proprietary data), which are rendered possible by the specific role played by electronic trading (and Tradeweb as a leader in the D2C electronic trading of OTC IRDs) in the overall OTC IRD trading and clearing market. However, both these two specific foreclosure strategies would apply to the overall D2C segment, and the analysis of neither of them would depend on whether the provision of trading and trading services for OTC IRDs is segmented by type of contract or currency.

3240 Form CO, paragraph C.V.299.

3241 Refinitiv owns a 54% economic interest in Tradeweb and therefore would need Tradeweb to implement such a strategy on its behalf.

3242 Form CO, paragraphs C.V.300 ff.

3243 Form CO, paragraph C.V.313.

36 MiFIR granting CCPs a right to non-discriminatory access to trade feeds).[3244] According to the Notifying Party, as a well-established and reputable market player, the merged entity would have no incentive to breach such requirements.[3245]

(2597) *Third*, the Notifying Party submits that Tradeweb will not have the ability to deny CCPs access to a sufficient customer base given that Tradeweb's market share on the global OTC IRD D2D market is lower than [0-5]% and only around [10-20]% on the global OTC IRD D2C market,[3246] which means that rival CCPs will keep, even in case of an input foreclosure strategy, access to [90-100]% of electronic D2D trade feeds and [80-90]% of electronic D2C trade feeds, as well as to the voice trade flow (which accounted for ca. [60-70]% of trade flow in 2018 and 2019).[3247]

(2598) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party submits that Tradeweb does not provide any 'essential inputs' for rival CCPs.

(2599) *First*, the Notifying Party claims that trades executed on Tradeweb do not constitute a critical component (in the sense of para 34 of the Non-Horizontal Mergers guidelines) for OTC IRD CCPs, in particular because voice trading represents over [80-90]% of the OTC IRD clearing volumes.[3248]

(2600) *Second*, the Notifying Party argues that no evidence suggest that Tradeweb's "long" buy-side customer base (such as asset managers, pension funds, insurance firms and hedge funds) is uniquely attractive and that, to the contrary, this customer group is represented equally both on rival venues and the voice channel (as this customer base would represent [a very high percentage] of Tradeweb's buy-side clients, [a very high percentage] of the buy-side clients of other trading venues, and [a very high percentage] in the D2C channel).[3249]

(2601) *Third*, in the Notifying Party's view, Tradeweb would not have the market power to foreclose rivals of LCH SwapClear given the strong competition it faces from, in particular, Bloomberg[3250] and voice trading, and the ease to switch trading venue.[3251]

(2602) In the Notifying Party's view, Tradeweb faces meaningful competition, in particular from Bloomberg. The Notifying Party explains that Bloomberg's competitive strength is reinforced by the fact that Bloomberg's OTC IRD trading venue is embedded within its widely-used terminals. The Notifying Party further emphasizes that according to Tradeweb's estimates, almost all of Tradeweb's customers are also connected to a Bloomberg terminal, further facilitating any potential switch of these customers between Tradeweb and Bloomberg.[3252]

(2603) *Fourth*, as regards the possibility to foreclose access to Tradeweb's trade data used by clearing houses to incentivize member banks, the Notifying Party submits that

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3244 Form CO, paragraphs C.V.314 ff.

3245 Form CO, paragraph C.V.314.

3246 Form CO, paragraph C.V.320. The Commission notes that these figures correspond to 2018 figures. In 2019, Tradeweb's market share on the global D2C OTC IRD market was [20-30]3%, and Tradeweb's market share on the global D2D OTC IRD market was [0-5]% based on number of trades and [0-5]% based on notional value traded.

3247 Form CO, paragraph C.V. 320.

3248 Response to the decision pursuant to Article 6(1)(c), paragraphs 165 – 166.

3249 Response to the decision pursuant to Article 6(1)(c), paragraphs 167 and 178 - 187.

3250 According to the Notifying Party, Bloomberg's competitive strength is reinforced by the fact that Bloomberg's OTC IRD trading venue is embedded within its widely-used terminals (response to the decision pursuant to Article 6(1)(c), paragraph 174).

3251 Response to the decision pursuant to Article 6(1)(c), paragraphs 172-177.

3252 Response to the decision pursuant to Article 6(1)(c), paragraphs 172 - 177.

Tradeweb's customer base exhibits no unique features, and in particular that Tradeweb doesn't have "long" buy-side customers (such as asset managers, pension funds, insurance firms and hedge funds) in significantly higher proportions than other trading venues/the rest of the market. The Notifying Party contends that this is evidence that Tradeweb's customer base has no remarkable feature that differentiate it from the rest of the market, and therefore is not of outstanding importance, compared to the rest of the market, in the context of a rival clearing house, such as Eurex, trying to build up its customer base.[3253]

(2604) The Notifying Party also points out that Eurex is the only OTC IRD CCP that uses Tradeweb data to incentivize its dealers, which would point towards the fact that Tradeweb's trade data cannot be considered as an essential input to compete in the OTC IRD clearing space. The Notifying Party also considers that Eurex can already source comparable data from rival trading venues such as Bloomberg.[3254]

(2605) In addition, the Notifying Party argues that, similar with what all other OTC IRD clearing houses currently do, Eurex could amend its incentive scheme so that it does not rely on trading data from Tradeweb. The Notifying Party submits that Eurex could compensate this amendment in its incentive schemes by trying to make it more attractive on other aspects, for instance by offering a higher revenue share to incentivise dealers to clear more trades with Eurex or include in its offer an 'all-you-can-eat' membership plan similar to or cheaper than SwapClear's platinum fee plan.[3255]

(2606) *Fifth,* in relation to a potential innovation-based foreclosure, in the Notifying Party's response to the decision pursuant to Article6(1)(c), the Notifying Party argues that the development of new products is driven neither by the CCPs nor by the Trading venues, but by customers themselves, and in particular buy-side clients and dealer banks active in OTC IRD, so that any attempt by the merged entity to stop collaborating with its customers in the elaboration of new products would ultimately benefit its competitors at both upstream and downstream level, whom customers would approach instead.[3256]

(2607) The Notifying Party also explains that in most of the instances, Tradeweb collaboration with its customers on new products involves designing products that are already voice-traded on Tradeweb. The Notifying Party further contends that in almost all instances, these products are already cleared and clearable in a number of CCPs, which were able to develop clearing for these products without any collaboration from Tradeweb. Therefore, any refusal from Tradeweb to cooperate with CCPs with respect to new products will have no influence on these CCP's ability to compete downstream by clearing these products, and will only harm Tradeweb's business by either encouraging customers to execute their trades at trading venues that accept to collaborate with customers and CCPs to make these products tradeable or by simply disincentive customers to move their trading activity from voice to electronic trading.[3257]

3253 Response to the decision pursuant to Article 6(1)(c), paragraph 188.
3254 Response to the decision pursuant to Article 6(1)(c), paragraph 191.
3255 Response to the decision pursuant to Article 6(1)(c), paragraphs 192 - 196.
3256 Response to the decision pursuant to Article 6(1)(c), paragraph 197 - 200.
3257 Response to the decision pursuant to Article 6(1)(c), paragraphs 200 - 204.

(2608) Lastly as regards a potential innovation-based foreclosure, the Notifying Party points out that Tradeweb's collaboration with Eurex has been very limited in the past years, and restricted to three or four projects.[3258]

B. The Commission's assessment

(2609) The Commission considers that the Transaction does not significantly impede effective competition due to vertical (input foreclosure concerns) as a result of the vertical link between the Parties' activities in the provision of trading (upstream) and clearing (downstream) services for OTC IRDs.

(2610) Input foreclosure may only raise concerns when it involves an important input for the downstream product. In the present case, access to OTC IRD trade feeds and data, the input whose access could be restricted, is a critical input for CCPs in two ways. First, CCPs cannot provide clearing services without access to OTC IRD trades since clearing services are ancillary to trading services. This is particularly important for new products to be listed on trading venues and cleared at a CCP. Second, an important input for CCPs is access to specific data generated as part of OTC IRD D2C trading activity (dealer performance data, as explained below) used by some CCPs to incentivize dealer banks.

B.1. Denial of cooperation in relation to the introduction of new products

(2611) The Commission's investigation did not support the possibility that Tradeweb would have the ability deny its cooperation to downstream rivals of LCH SwapClear in the context of the introduction of new products.

(2612) This is because the market investigation confirmed that the lifecycle of a new product indeed follows generally the description provided by the Notifying Party, in the sense that (i) customers generally propose ideas for new products, which then can come into use as voice-traded products, (ii) if there is sufficient demand for making these products cleared, CCPs will make them available for clearing in a second time (possibly years after the new product first begun to be voice-traded) and (iii) if there is enough demand for these products to become electronically traded, trading venues will start working with customers and CCPs in order to make these products available for electronic trading. Additionally, as already mentioned above in Section 4.5.36.1.B.1.3.2., a considerable amount of time can elapse between each ones of these steps.

(2613) Therefore, when there is demand for a given new product to become available for electronic trading, this product is usually already available for clearing. As such, Tradeweb's cooperation is usually not required for a CCP to make a given product available for clearing. On the contrary, CCP cooperation is necessary at the stage when a given trading venue wishes to make a new product, already available for clearing, available for electronic trading.

(2614) The Commission therefore concludes that the combined entity would lack the ability to engage in an input foreclosure strategy whereby it would deny its cooperation at trading level (upstream) in the context of the introduction of new products at downstream level.

(2615) As regard incentive and impact, it is not necessary for the Commission to conclude on whether the combined entity would have an incentive to engage in such an input foreclosure strategy, or whether such an input foreclosure strategy would have a

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3258 Response to the decision pursuant to Article 6(1)(c), paragraph 205.

meaningful impact on the market, given that the combined entity would lack the ability to engage in such input foreclosure strategies in the first place.

(2616) As a result, in view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in relation to a potential denial of cooperation to CCPs by Tradeweb in the context of the introduction of new products.

B.2 Denial of access to Tradeweb's proprietary data used by other CCPs to incentivise dealer banks

(2617) In the course of the Commission's investigation, one of LCH SwapClear's downstream rivals, Eurex, has expressed concerns that post-Transaction, it will no longer be granted access to Tradeweb's data that is essential to be able to incentivise dealers to provide similar quotes for trades cleared at the competitor's CCP vs. trades cleared at LCH.[3259] Eurex incentivises its dealer banks not only on the volumes these banks clear with Eurex, but also on the competitiveness of the quotes these banks are posting on Tradeweb's platform. Eurex reiterated its concerns in the course of the Commission's Phase II market investigation.[3260]

(2618) In particular, Eurex submits that its incentive scheme was instrumental to building up Eurex's current market position: "*Before the Eurex's partnership program existed, dealer banks only sporadically quoted on Tradeweb prices for clearing at Eurex, and when they did so the spread was often very wide (and significantly wider than the comparable spread for clearing via LCH). After the implementation of the Eurex Partnership Programme, as Eurex had reliable and measurable data, a high number of dealer banks has started showing better quotes on Tradeweb, and spreads rapidly tightened.*"[3261] Eurex explains that it needs data from Tradeweb, and would not be in a position to replicate effectively its incentive scheme if it needed to rely on data provided by other trading venues, such as Bloomberg for instance. This is because, according to Eurex, Tradeweb has a unique customer base, and is particularly strong in attracting "real buy-side" clients, which are in turn crucial for the building of Eurex's customer base: "*In order to be successful in the clearing market, Eurex considers that it needs to first attract a certain category of clients. In particular, Eurex considers that to be successful in the clearing space as a new entrant, it is crucial to first attract clients such as asset managers, pension funds and insurance funds, running directional books, in order to attract, as a second step, buy-side clients with higher turnover, such as hedge funds, which will in turn attract dealer-to-dealer volumes. Eurex considers that Tradeweb has a unique customer base of asset managers, pension funds and insurance funds, which, as mentioned above, Eurex considers necessary to attract in priority to risk exposure balances triggering higher confidence for high turnover clients like hedge funds regarding a sustainability of the Eurex liquidity pool and triggering incentives for dealers to hedge open exposures into the inter-dealer market directly cleared via Eurex. Tradeweb's unique customer base is thus crucial for Eurex's attractiveness.*"[3262]

(2619) Finally, Eurex considers that it would lack any effective counter-strategies, as it would be unrealistic from Eurex's point of view to ask the dealer banks themselves

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3259 Submission by DBAG dated 27 May 2020, Doc ID 3878.

3260 See Eurex's responses to the Commission's questions to OTC IRD clearing competitors, Doc ID 6063 .

3261 Minutes of a call with Eurex on 12 August 2020 at 17:00 PM, Doc ID 6151.

3262 Minutes of a call with Eurex on 12 August 2020 at 17:00 PM, Doc ID 6151.

to provide the relevant quoting data needed for Eurex's incentive programme ("*In Eurex' views, Tradeweb Performance Data cannot be obtained from the banks directly. Eurex explains that, while theoretically it could receive information similar to the Tradeweb Performance Data from each of the banks themselves, in practice, the banks would be very reluctant to provide this type of data, especially on a daily basis. Providing the data on a daily basis would represent an operational hassle for the banks and they try to avoid such burdensome processes. Moreover, even if the banks were to provide the data on a daily basis, the data would not be reliable – Eurex would not be able to know whether the information provided by the banks is correct and would also face the difficulty of getting information from all of the banks (rather than just a single source, Tradeweb)*."),[3263] and that amending Eurex's incentive programme so as to cancel its reliance to Tradeweb's data (for instance by having an incentive scheme based on volumes traded only, or by paying member banks a higher revenue share so as to make its incentive scheme more attractive) would miss Eurex's objective and would ultimately prove less efficient: "*Eurex submits that paying member banks a higher revenue share is likely not to have any effect on the price they quote on Tradeweb's trading platform. This would only work if Eurex were able to define the conditions that determine the revenue share, on tight spreads.* […] *Eurex also considers that having an incentive scheme based on cleared volumes only would be less effective.* […]. *In this respect, Eurex considers that it needs to provide specific and targeted incentives to steer dealer banks' behavior in relation to their pricing of clearing on Eurex in the right direction.*"[3264]

(2620) The Commission has investigated to which extent the combined entity would have the ability and incentive to engage in such a foreclosure scenario, whereby it would deny access to Tradeweb's proprietary data used by Eurex as an input to Eurex's incentive programme, and whether such an input foreclosure strategy would have a meaningful impact on the market. At the outset of this assessment, the Commission notes that Eurex is the only CCP making use of Tradeweb's data in order to incentivise its dealer banks. The Commission also notes that Eurex does not pay any consideration to Tradeweb for the provision of the data used to incentivise Eurex's dealer banks.[3265]

(2621) *First* as regards ability, the Commission considers that the combined entity would certainly have the ability put an end to the agreement governing the sharing of trade quote data between Eurex and Tradeweb. Section 4 of the agreement governing the sharing of trade quote data between Eurex and Tradeweb mentions that Tradeweb "*shall have the right to terminate this Agreement and, therefore, its status as approved OTC IRS Platform at any time and for any reason of for no reason whatsoever by providing a written termination notice to Eurex Clearing. Such termination shall be effective at the end of the third calendar month following the month in which such termination notice was received by Eurex Clearing."*[3266]

(2622) However, in order for the Commission to find that the combined entity would have the ability to foreclose its downstream competitors (Eurex only in that case), the Commission must be able to demonstrate that the foreclosure strategy concerns an

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3263 Minutes of a call with Eurex on 12 August 2020 at 17:00 PM, Doc ID 6151.

3264 Minutes of a call with Eurex on 12 August 2020 at 17:00 PM, Doc ID 6151.

3265 See RFI 28 reply, question 42.

3266 See RFI 28 reply, Annex M.9564_RFI 28_Refinitiv_33_Amended and Restated Agreement on the Provision of OTC Quote Information between Eurex Clearing AG, Tradeweb Europe Limited and TW SEF LLC dated 14 August 201.

important input for the downstream market.[3267] Here, for the reasons explained below, the Commission's market investigation led the Commission to the conclusion that Tradeweb's quote data was not an important input for the provision of CCP clearing services for OTC IRDs.

(2623) For the Commission to find that Tradeweb's quote data used by Eurex to incentivize its dealer banks is an important input for the provision of CCP clearing services for OTC IRDs, the Commission would need to find cumulatively (i) that Eurex's partnership program effectively incentivises dealer banks to quote narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex, than they would do absent the partnership program, (ii) that quoting narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex effectively contributes to increasing the volumes that clients decide to clear with Eurex, (iii) that an incentive scheme based only on volume of trades cleared with Eurex (*i.e.* that would not require quote data from Tradeweb) could not be as effective as the current partnership program in narrowing bid/ask spreads on Tradeweb, (iv) that it would not be possible for Eurex to request its partnership programme members to provide Eurex directly with information on traded volumes and bid/ask spreads, (v) that dealer banks would no longer continue to clear trades with Eurex at the same level of volume if the Eurex partnership programme was no longer in place, (vi) that having an incentive programme was instrumental to Eurex's success in attracting higher volumes in the past two years (as opposed to other CCPs such as CME which do not have an incentive programme), (vii) that having an incentive programme based on quote data was instrumental to Eurex's success in attracting higher volumes in the past two years (as opposed to other external factors such as increased Brexit-related uncertainty) and (viii) that having an incentive programme based on quote data from Tradeweb (as opposed to data from Bloomberg) was instrumental to Eurex's success in attracting higher volumes in the past two years (in the sense that Eurex could not achieve the same results by entering into the same type of data sharing agreements with Bloomberg).

(2624) While some of these points were not entirely determined by the Commission's market investigation, some others were clearly dismissed by the results of the Commission's market investigation.

(2625) *Firstly*, as regards whether Eurex's partnership program incentivises dealer banks to quote narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex, than they would do absent the partnership program, the Commission notes that 71% of customers who expressed a view consider that Eurex's partnership program does not incentivise them to quote narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex, than they would do absent the partnership program.[3268] For instance, Deutsche Bank mentions that *"even without the partnership programme, b/o would be same/very similar given the level of competition for flow (for social size)."*[3269] Crédit Suisse states as well that *"CS has not materially adjusted its prices to clear to Eurex as a result of the partnership program."*[3270] Similarly, Citi considers that *"While the Partnership program is one consideration, it is not a*

3267 Non-Horizontal Merger Guidelines, paragraph 34.

3268 Responses to question 1 of the Commission's questions on Eurex's partnership program, Doc IDs 6005, 6144, 6221, 6080, 6078, 6285, 6593.

3269 Deutsche Bank's response to question 1 of the Commission's questions on Eurex's partnership program, Doc ID 6221.

3270 Crédit Suisse's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6005.

significant consideration.",[3271] and UBS explains that *"Everything else being equal, the Eurex's partnership program incentivizes banks to quote tighter spreads for clearing with Eurex trades executed on Tradeweb. However, the Eurex partnership program is only one element amongst others."*[3272] Some customers even mention that they do not to actively participate in Eurex's incentive programme. This is for instance the case of Nomura: *"Nomura's Eurex volumes are not high enough for us to benefit from the Eurex Partnership Program"*[3273] Among all respondents, only JP Morgan appears to be taking a clear view (though not in the strongest manner) in favour of the fact that Eurex's incentive programme indeed has a meaningful incentivising effect on the bid/ask spread quoted on Tradeweb: "*Eurex provides incentives for Dealers to quote narrow bid/ask spreads on the Disclosed Streaming (DS) and Central Limit Order Book (CLOB) of approved platforms including Tradeweb. Our firm quotes identical bid/ask spreads on interest rate derivatives cleared on Eurex and LCH.*"[3274] The Commission notes however that in JP Morgan's statement, the causal relationship between the existence of the partnership program and JP Morgan's quoting behaviour is not phrased explicitly. As such, none of the respondents explicitly stated that they quoted tighter bid-ask spreads on Eurex (or bid-ask spreads similar to the ones they quote on LCH) <u>because of</u> Eurex' partnership program, despite being specifically asked about this point. Therefore, the Commission concludes that the very effectiveness of Eurex's incentive programme at incentivising dealer banks to quote narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex than they would do absent the partnership program can be questioned, or should at least be put into perspective with other more important factors taken into consideration by a given bank when posting a quote on a trading venue.

(2626) *Secondly*, as regards whether quoting narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex contributes to increase the volumes that clients decide to clear with Eurex, in a similar fashion, only one respondent to the Commission's market investigation takes a clear stance on the matter, while the vast majority either disagrees or considers that the price factor should be put into perspective with other factors which customers take into account when deciding where to clear. As above, JP Morgan agrees with this view: *"Yes, narrower bid/ask spreads in Eurex instruments would incentivize clients to select interest rate derivatives cleared on Eurex."*[3275] However, other dealer banks generally disagree with this statement. Interestingly, several respondents pointed out to the fact that in the process of deciding where to clear, clients usually take into account a very broad range of factor, including long-term factors, which are likely to outweigh the mere pricing considerations. For instance, Société Générale explains that *"It may be that narrower bid/ask spreads contribute to the client selecting Eurex as its CCP, but this is only one factor in what is a complex multi-dimensional decision. For example, the absence of many currencies from the Eurex offer might well be a more weighty*

3271 Citi's response to question 1 of the Commission's questions on Eurex's partnership program, Doc ID 6005.

3272 UBS's response to question 1 of the Commission's questions on Eurex's partnership program, Doc ID 6285.

3273 Nomura's response to question 1 of the Commission's questions on Eurex's partnership program, Doc ID 6080.

3274 JP Morgan's response to question 1 of the Commission's questions on Eurex's partnership program, Doc ID 6078.

3275 JP Morgan's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6078.

factor."[3276] RBS and Nomura emphasize as well the role of several factors other than narrow quotes in determining the client's choice of a CCP. Nomura lists several of these factors: "*other factors can also affect clients' decisions where to trade and where to clear. These other factors could include, by way of example: Depth of liquidity; Connectivity to both the Venue and Clearing House; Ability to Compress; Cost of Trading the ticket; Cost of Clearing the ticket; Initial Margin Requirements; Default Fund Requirements; Other services such as the ability to manage Initial Margin.*",[3277] while RBS explains that "*This would be one factor that a client may consider. However, in our experience when choosing where to clear, clients look at the holistic cost and operational overhead bearing in mind the duration of the trade. Therefore they may take a longer term view over a short term benefit derived through an incentive scheme.*"[3278] The crucial impact of Brexit is also mentioned in this context, by Deutsche Bank ("*EUREX is also slowly gaining mkt share in EUR IRS space, but that's somewhere around 5-10%. Given BREXIT uncertainty, being able to achieve the same b/o has led to an increase in volumes in EUREX.*")[3279] as well as UBS ("*Whether the majority of swaps will one day go to Eurex would ultimately depend on much more important structural changes in the market than Eurex's partnership program, in particular: (i) the Brexit negotiations, in particular regarding market access and equivalence principles, and (ii) the costs of clearing wider portfolios in terms of other currencies and other instruments.*")[3280] As a result, the Commission considers that for this point as well, it is at best unclear whether quoting narrower bid/ask spreads on Tradeweb for the clearing of trades with Eurex (at least to the degree generated by Eurex's incentives programme) meaningfully contributes to increase the volumes that clients decide to clear with Eurex.

(2627) *Thirdly,* as regards whether an incentive scheme based only on volume of trades cleared with Eurex (i.e. that would not require quote data from Tradeweb) could be as effective as the current partnership program in narrowing bid/ask spreads on Tradeweb, the Commission notes that a majority (63%) of respondents that took a view agree that an incentive scheme based on volumes only would be less effective.[3281] For instance JP Morgan explains that "*as volumes could be generated in dealer-to-dealer trades that don't require competitive prices to be offered to clients. It is our opinion that a scheme based only on volume of trades could incentivise narrowing bid/ask spreads but not to the same effectiveness as the existing partnership programme.*"[3282] Similarly, LLBW is of the opinion that "*considering only the volume will incentivize short dated trades and Reset Runs (fixing Hedges via FRA-Series) only. The Mid- and Long part of the curve would not be supported by*

3276 Société Générale's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 5953.

3277 Nomura's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6080.

3278 RBS's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6145.

3279 Deutsche Bank's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6221.

3280 UBS's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6285.

3281 Responses to question 3 of the Commission's questions on Eurex's partnership program, Doc IDs 5953, 6005, 6144, 6221, 6080, 6078, 6285, 6593.

3282 JP Morgan's response to question 3 of the Commission's questions on Eurex's partnership program, Doc ID 6078.

such an approach."[3283] Deutsche Bank expresses a more mitigated opinion, explaining that "*Volume is usually a good first indicator of b/o. However, it's not a guarantee. You would expect the scheme to be less efficient, given clients need to be able to assess trading costs holistically.*"[3284] Crédit Suisse however seems to consider a volume-based only incentive scheme could retain some significant degree of effectiveness: "*We see the potential for a volume-based incentive scheme to lead to narrower bid/ask spreads. […] As mentioned, we do not consider that Eurex' current partnership program has led to us quoting narrower bid/ask spreads.*"[3285] Citi on the contrary seems to be dubious of the effectiveness of incentive schemes in general, be them volume-based or more sophisticated, given the weight of other more important factors in Citi's view, such as liquidity and client demand: "*An incentive scheme based on volume only is unlikely to have a material effect on participants current bid/ask spreads. Liquidity and client demand will have a greater influence on spreads.*"[3286] As a result, the Commission considers that an incentive scheme based on volumes might be less efficient than the current, more sophisticated incentive scheme operated by Eurex. This does not preclude the Commission's conclusions regarding the seven other points examined in this section.

(2628) *Fourthly*, as regards whether it would not be possible for Eurex to request its partnership program members to provide Eurex directly with information on traded volumes and bid/ask spreads, here as well, 44% of respondents would consider doing so, 44% of respondents would not, and 12% of respondents would be able to do so, but would most likely not for lack of interest in Eurex's incentives program.[3287] On the one side, Crédit Suisse ("*CS would consider doing so, if it would support the continued functioning of the OTC clearing market and Eurex as a viable, competitive clearing option for its clients.*"),[3288] Citi ("*It would be possible for us to provide the data, subject to contractual agreements with Tradeweb. We would need to consider how frequently the file will be provided based on the incentive level.*"),[3289] BNP Paribas ("*It depends how this data will be used*")[3290] and Société Générale ("*It would require some work on our side but we could do it.*")[3291] appear to find no particular obstacles in doing so, while on the other side respondents such as JP Morgan ("*It would be burdensome and impractical for our firm to provide Eurex with the information required directly.*"),[3292] LLBW ("*Reporting market quote and trade*

3283 LLBW's response to question 3 of the Commission's questions on Eurex's partnership program, Doc ID 6419.

3284 Deutsche Bank's response to question 3 of the Commission's questions on Eurex's partnership program, Doc ID 6221.

3285 Crédit Suisse's response to question 3 of the Commission's questions on Eurex's partnership program, Doc ID 6005.

3286 Citi's response to question 3 of the Commission's questions on Eurex's partnership program, Doc ID 6005.

3287 Responses to question 4 of the Commission's questions on Eurex's partnership program, Doc IDs 5953, 6005, 6144, 6221, 6080, 6078, 6285, 6593, 6285.

3288 Crédit Suisse's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6005.

3289 Citi's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6005.

3290 BNP Paribas's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6539.

3291 Société Générale's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 5953.

3292 JP Morgan's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6078.

information in addition to existing regulatory reporting obligations would require infrastructure investments and additional human resources that might jeopardize the rational of the partnership programme."),[3293] Deutsche Bank ("*Not getting these data from a reliable 3rd party would make certain parts of the programme less efficient/impossible, as EUREX has no visibility how to incentivise "tight b/o" otherwise*")[3294] and UBS ("*To provide accurate bid/offer spread and transaction data to Eurex directly is likely to be a medium size project. […] There would be very little appetite in the bank to this.*")[3295] would find this perspective impractical to various degrees. As a result, the Commission considers that it is unclear whether it would be possible for Eurex to request its partnership program members to provide Eurex directly with information on traded volumes and bid/ask spreads. This does not preclude the Commission's conclusions regarding the seven other points examined in this section.

(2629) *Fifthly*, as regards whether dealer banks would continue to clear trades with Eurex at the same level of volume if the Eurex partnership programme was no longer in place, respondents that expressed a view were almost unanimous on the matter, with 87.5% of respondents either clearly stating that they would, or that at any rate, their volumes are driven by client demand, which is little impacted by incentive schemes in their opinion.[3296] Crédit Suisse summarises this very clearly, by mentioning that "*Yes, both house and Client clearing are primarily driven by liquidity, client preference and choice, which is not impacted by any CCP arrangements. The choice of switching venue by a Clearing Broker does not mean that clients of the broker will move with them.*"[3297] This is also the opinion of Goldman Sachs ("*GS' clearing activity at Eurex is driven by client demand and market dynamics, and not by any considerations related to the Eurex Partnership Programme.*")[3298] and Citi ("*The key factor for Citi in relation to which clearing house we use is client demand [Confidential]. The level of volume / number of trades cleared would be driven by our client's needs and requests.*").[3299] NWG expresses its opinion in an even stronger way: "*Yes, NWM does not take the partnership program into account when determining where to clear.*"[3300] In a similar fashion, Société Générale clearly answers: "*Yes, absolutely. We have supported the IRS clearing service at Eurex since its commencement and quote Eurex cleared prices to clients that request them. We will continue to do this. We will clear interbank hedge trades at Eurex to the extent that we have material positions that arise as a result of client demand.*"[3301] Among all respondents, JP Morgan is the only one expressing a slightly more mitigated opinion: "*The choice of the clearing house in our trades with clients is*

3293 LLBW's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6419.

3294 Deutsche Bank's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6221.

3295 UBS's response to question 4 of the Commission's questions on Eurex's partnership program, Doc ID 6285.

3296 Responses to question 3 of the Commission's questions to SwapClear banks, Doc IDs 5956, 5768, 5903, 5658, 6007, 5719, 5758, 5720, 5733, 5736.

3297 Crédit Suisse's response to question 3 of the Commission's questions to SwapClear banks, Doc ID 5719.

3298 Goldman Sach's response to question 3 of the Commission's questions to SwapClear banks, Doc ID 5956.

3299 Citi's response to question 3 of the Commission's questions to SwapClear banks, Doc ID 5658.

3300 NWG's response to question 3 of the Commission's questions to SwapClear banks, Doc ID 5678.

3301 Société Générale's response to question 3 of the Commission's questions to SwapClear banks, Doc ID 5733.

ultimately at our clients' discretion. For our house business, the incentive to select Eurex would be diminished if the programme was no longer in place and therefore volumes with Eurex could reduce."[3302] Taking these elements into consideration, the Commission considers very likely that dealer banks would continue to clear trades with Eurex at the same level of volume if the Eurex partnership programme was no longer in place.

(2630) *Sixthly*, as regards whether having an incentive programme was instrumental to Eurex's success in attracting higher volumes in the past two years (as opposed to other CCPs such as CME which do not have an incentive programme), the Commission notes indeed that CME has succeeded in building a global market share (in terms of notional cleared volumes) more than twice the one of Eurex (see Table 43 above). As such, it appears that it is possible for a CCP to gain traction and be successful to some extent in OTC IRD clearing without having an incentive program for its dealer banks. As a result, the Commission considers that it is unlikely that incentive programs can be considered as essential factors to the success of a CCP in the clearing of OTC IRDs.

(2631) *Seventhly*, as regards whether having an incentive programme based on quote data was instrumental to Eurex's success in attracting higher volumes in the past two years (as opposed to other external factors such as increased Brexit-related uncertainty), as already mentioned above in relation to the second point, several customers already pointed out the critical impact of Brexit in recent market developments in relation to the clearing of OTC IRDs.[3303] Moreover, when asked which was the main reason for starting or increasing their OTC IRD clearing with Eurex in the past 2-3 years, only 14% of customers which started or increased clearing with Eurex in the past 2-3 years relate this move to the Eurex partnership program only, while 18% relate this to Brexit uncertainty, 14% relate it to both Brexit uncertainty and the Eurex partnership program, and 55% mention other reasons.[3304] The picture is even clearer for buy-side customers (which are the customer that Eurex is most willing to attract through its partnership program), where none relate the fact that they started or increased their OTC IRD clearing with Eurex in the past 2-3 years with Eurex's partnership program, 27% relate this to Brexit uncertainty, 18% relate it to both Brexit uncertainty and the Eurex partnership program, and 55% mention other reasons.[3305] Therefore, the Commission concludes that it is likely that Eurex's partnership program was only one among many factors (including Brexit uncertainty) instrumental to Eurex's increased success in the past 2-3 years, and cannot be considered as a critical or essential factor in this context.

(2632) *Eighthly*, as regards whether having an incentive programme based on quote data from Tradeweb (as opposed to data from Bloomberg) was instrumental to Eurex's success in attracting higher volumes in the past two years (in the sense that Eurex could not achieve the same results by putting the same type of data sharing agreements with Bloomberg), Eurex's complaint hinges on the fact that Tradeweb has a unique customer base consisting of "real buy-side" (or "long buy-side") clients (i.e. asset managers, pension funds, insurance funds and hedge funds). This was not

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3302 JP Morgan's response to question 3 of the Commission's questions to SwapClear banks, Doc ID 5758.

3303 See Deutsche Bank's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6221, as well as UBS's response to question 2 of the Commission's questions on Eurex's partnership program, Doc ID 6285.

3304 Question 38.2, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

3305 Question 38.2, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

confirmed by the results of the Commission's investigation. In particular, information submitted by the Notifying Party evidences that among trades cleared by LCH SwapClear, [a very high percentage] of trades executed on Tradeweb were made of real buy-side clients, while this proportion was [a very high percentage] for trades executed on other electronic venues or traded off-venue, and [a very high percentage] for the total D2C market (see Figure 40 below). Even excluding hedge funds, which make up for [a high percentage] of the total, the proportion would be [a small percentage] for Tradeweb versus [a small percentage] for other electronic venue/off-venue trades and [a small percentage] for the overall D2C market (see Figure 40 below). As such, while it appears that Tradeweb has indeed a significant presence in real buy-side clients, this difference does not appear sufficient to justify that Tradeweb's trade feeds would be irreplaceable, and that an incentive scheme based on quotes posted on Bloomberg for instance, instead of Tradeweb, could not achieve the same effect. This was also confirmed by the responses by rival CCPs. Among CCPs that expressed a view, beside Eurex, only CME strongly stressed the importance of Tradeweb's trade feeds (but CME's comments only related to the need to be able to continue clearing them post-Transaction, not to the need to be able to incentivise its dealer banks based on quotes posted on Tradeweb, since as already mentioned above, CME does not have an incentive scheme): "*Tradeweb has a significant presence as an execution venue for CME cleared trades. Not being able to clear trades from Tradeweb would carry significant business impact for CME.*"[3306] The Commission note in particular that neither BME, Comder, HKEX, KDPW nor Nasdaq consider themselves to be "relying on" Tradeweb's trade feeds.[3307] Moreover, beside Eurex, none of the CCPs that responded to the Commission's market investigation mentioned trade feeds from "real buy-side" clients or "long buy-side clients" or any specific sub-category of clients at all as being more attractive for them to clear, including when specifically asked whether some trade feeds types were currently more attractive for them to clear (and if that differs by specific product category/currency/other aspects).[3308] Finally, the only reason Eurex puts forward to explain why it doesn't include Bloomberg trade data in Eurex' incentive program is that Bloomberg doesn't currently provide the relevant data ("*absent the data from the trading venue, they have no ability to measure performance which means such incentives are unfeasible. <u>This is why Eurex does not apply specific performance criteria to dealers' trades on Bloomberg</u> as Bloomberg does not provide the required streaming data.*" – emphasis added).[3309] This would seem to suggest that if Bloomberg were to provide this data to Eurex, Eurex would have interest in including Bloomberg volumes and quotes in its incentive program. Since Eurex's incentive program represents a cost for Eurex, it could be assumed that Eurex would not be willing to include Bloomberg volumes and quotes in the perimeter of its incentive program if this were to make the program less relevant or less targeted (*inter alia* as a result of a lesser presence of real buy-side customers on Bloomberg). Since this is not the case, it would seem to appear that Bloomberg's trade feeds would have some degree of relevance as well for the purposes of Eurex's incentive program. As a result, the Commission considers likely that Eurex's

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3306 Question 6, Questionnaire to OTC IRD clearing competitors, response of CME, Doc ID 5434.

3307 Question 6, Questionnaire to OTC IRD clearing competitors, responses of BME, Comder, HKEX, KDPW and Nasdaq, Doc IDs 5937, 5226, 5377, 6101, 5731.

3308 Questions 1.b. and 3.b., Questionnaire to OTC IRD clearing competitors, Doc IDs 6063, 6212, 5937, 5434, 5226, 5377, 5364, 6101, 5731, 5626.

3309 Minutes of a call with Eurex on 12 August 2020 at 17:00 PM, Doc ID 6151.

incentive program currently in place with respect to volumes and quotes posted on Tradeweb could be extended or replicated in a similar way, without losing in attractiveness, to include Bloomberg trade data.

Figure 40

[…]

Source: Notifying Party's response to the decision pursuant to Article 6(1)(c)

(2633) In conclusion, given that most of the reasoning steps listed above in recital (2688) (namely steps (i), (ii), (iii), (v), (vi), (vii) and (viii)), which would need to be established cumulatively in order to find that Tradeweb's quote data used by Eurex to incentivize its dealer banks is an important input for the provision of CCP clearing services for OTC IRD, were not confirmed by the Commission's investigation, the Commission concludes that the combined entity would lack the ability to engage in a potential input foreclosure strategy whereby it would deny access Tradeweb's quote data used by Eurex to incentivize its dealer banks.

(2634) *Second*, as regards incentives, the Commission considers that it is at best unclear whether the combined entity would have the incentives to engage in such a foreclosure strategy.

(2635) On the one hand, given that Eurex does not pay any consideration to Tradeweb for the provision of the data used to incentivise Eurex's dealer banks, it might seem at first sight that if the combined entity had the slightest prospect of increasing its sales or strengthening its position downstream as a result of such a foreclosure strategy, this positive prospect would be weighed against no losses upstream, so that there would always be an incentive for the combined entity to engage in such a strategy.

(2636) On the other hand, nevertheless, the Commission considers likely that Tradeweb engaged in this data sharing agreement with Eurex in the first place because Tradeweb had some interest in doing so, for instance because by incentivising dealers to post better quotes on Tradeweb's trading platforms for trades cleared on Eurex, Eurex's partnership programme contributes to decrease the average costs viewed by its customers when trading on Tradeweb's platform, and thus contribute to attract additional volumes to be cleared on Tradeweb.[3310] As such, the incentives paid by Eurex to its partnership members in order to make them quoting narrower bid-ask spreads on Tradeweb can be viewed to some extent as a subsidy from Eurex to the prices posted on Tradeweb's platform. Moreover, as evidenced in Section 4.5.36.1.B.1.1.6 above, CCP switching is difficult, costly and lengthy, while by contrast switching trading venue can be performed instantaneously at no cost. This would severely limit the benefits that the combined entity would get from engaging in any input foreclosure strategy with respect to OTC IRD trading and clearing in general, and from this input foreclosure strategy in particular. The Commission notes as an illustration that the switching rates obtained in the context of potential customer foreclosure scenarios reveal for instance that when asked what would be their reaction in case of a deterioration in connectivity when trading on a certain trading venue and clearing at their preferred CCP, no customer answered that they would

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3310 This mechanism, though putative, is not in contradiction with the Commission's finding with respect to point (ii) above, because it is possible that, according to the market feedback, Eurex's incentive programme does not play an important role in increasing the volumes cleared at Eurex, while effectively still driving trade volumes into Tradeweb. This would be coherent with the fact that customers generally find switching trading venue much simpler, cheaper and faster than switching CCP (see section 4.5.36.1.B.1.1.6 above).

stay with the same trading venue and switch CCP. 63% of the customers indicated that they would switch trading venue, 3% of the customers explained that they would remain with the trading venue and their preferred CCP, and 35% of the customers would try to negotiate or retaliate to counter the deterioration of connectivity.[3311] Both effects (namely (i) the fact that Tradeweb is likely to find a benefit in its relationship with Eurex, for instance under the form of increased trade flows and (ii) the fact that it would likely be difficult for the combined entity to recoup any gains at downstream level due to the high barriers to switching CCPs) would point towards the absence of incentive of the combined entity to engage in a potential input foreclosure strategy with regards to Tradeweb's trade data. As a result, the Commission considers that it is at best unclear whether the combined entity would have the incentives to engage in such a foreclosure strategy.

(2637) However, it is not necessary for the Commission to conclude on whether the combined entity would have an incentive to engage in such an input foreclosure strategy, given that the combined entity would lack the ability to engage in such an input foreclosure strategy, as explained above, and that such an input foreclosure strategy is unlikely to have a meaningful impact on the OTC IRD clearing market, as explained below.

(2638) *Third*, as regards impact, the Commission considers that for the reasons set out below, such an input foreclosure strategy is unlikely to have a meaningful impact on the OTC IRD clearing market.

(2639) This is essentially because, as explained above, the provision of Tradeweb quote data used by Eurex to incentivise its dealer banks cannot be deemed to be an important input for the provision of CCP clearing services for OTC IRDs. As explained above, the Commission's investigation demonstrated that even absent the arrangement between Tradeweb and Eurex for the sharing of Tradeweb's quote data, it is likely that Eurex would be in a position to maintain its incentive programme in place through other means (by using Bloomberg data instead of Tradeweb's data, or by basing its incentive program on volumes cleared only), and that even if the Eurex partnership programme was no longer in place, dealer banks would continue to clear trades with Eurex at the same level of volume. As such, absent the arrangement between Tradeweb and Eurex for the sharing of Tradeweb's quote data, it is likely that Eurex would be able to continue to compete in a similar fashion in the OTC IRD clearing market.

(2640) As a result, in view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction does not significantly impede competition in relation to potential input foreclosure in the vertical link between Tradeweb's proprietary data used by OTC IRD CCPs to incentivise their dealer banks (upstream) and clearing services for OTC IRDs (downstream).

C. Conclusion

(2641) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for the provision of clearing services for OTC IRDs,

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3311 Question 29, Questionnaire 21 to OTC IRD customers, Doc ID 6472.

following an input foreclosure strategy involving the provision of trading services for OTC IRDs.

4.5.37. Provision of Trading (upstream) and Clearing (downstream) Services for Foreign Exchange Products

(2642) Upstream, Refinitiv offers through its subsidiary Refinitiv trading services for OTC FX products primarily through FXall and Matching, respectively for dealer-to-client (D2C) and dealer-to-dealer (D2D) trades. LSEG is not active at the trading level. Downstream, LSEG is active in the provision of clearing services for OTC-traded FX products through LCH's ForexClear. Refinitiv does not offer such services.

4.5.37.1. Assessment of input foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for foreign exchange products

A. The Notifying Party's view

(2643) The Notifying Party submits that there are no affected markets, but that even if there were, the Transaction would not give rise to non-horizontal concerns with respect to the trading and clearing of FX products for the following reasons.

(2644) Regarding the ability to foreclose rival CCPs, first the Notifying Party submits that at the trading level, Refinitiv has a low market share with approximately [5-10]% of OTC D2C FX products trading, [5-10]% of OTC D2D FX products trading and [5-10]% share of overall OTC FX products trading. Therefore, rival CCPs have access to the volumes traded on other venues and over voice, which collectively represent at least approximately [90-100]% of trading volumes.[3312]

(2645) Second, the Notifying Party highlights that any attempt to refuse access in a discriminatory way would be against its regulatory obligations (Art. 36 MiFIR granting a right to non-discriminatory access of CCPs to trade feeds) and thus there would be no ability to foreclose rival CCPs.

(2646) Regarding the incentive to foreclose rival CCPs, the Notifying Party notes that any attempt to foreclose rival CCPs could provoke retaliation from market participants and jeopardize dealer relationships. As has been described in relation to other asset classes, dealers always want to retain optionality and avoid becoming dependent on a single venue. Given customers' willingness to sponsor alternative players as a competitive constraint – as was done with FXSpotStream – seeking to implement a policy that disadvantaged the combined entity's own customer base would make no commercial sense.

(2647) Lastly, entry and expansion by rival trading venues will continue to constrain the combined entity post-Transaction. Several FX trading solutions have entered the market for OTC FX trading services in recent years, including FXSpotStream, R5FX and BidFX. Furthermore, Euronext recently announced its intention to diversify Euronext FX (formerly FastMatch) through the development of new products and target new client segments and geographies.

(2648) In its response to the decision pursuant to 6(1)(c), the Notifying Party considers that Refinitiv lacks the ability to engage into any input foreclosure strategy.

(2649) First, the Notifying Party submits that Refinitiv's FX trade feeds cannot be regarded as an essential input for CCPs due to the small volume of Refinitiv's venues in FX trading. The Notifying Party submits that the market share of Refinitiv in the D2C

3312 Form CO, paragraph C.IV.119

channel is [5-10]%, and [5-10]% in the D2D channel. According to the Notifying Party, even in the narrow OTC FX electronic MDP-only trading segmentation, Refinitv's venues account for [20-30]% of the D2C market and only [10-20]% of the D2D market in terms of traded volumes in 2019.[3313] Furthermore, the Notifying Party reiterates that Refinitiv has its highest market shares in the D2C channel, while the vast majority of D2C trades in the market are not cleared or expected to be cleared in the near future. In addition, the Notifying Party notes that Refinitv's position in the provision of trading services for OTC FX products has been in decline in recent years.

(2650) In the Notifying Party's response to the decision pursuant to 6(1)(c), the Notifying Party considers that collaboration between a trading venue and a CCP is not necessary for the development of new products in the FX trading and clearing market.[3314] In particular, CCPs do not depend on Refinitiv's FXall D2C venue in order to compete effectively on the market, due to the small volumes of FXall in OTC FX trades cleared in CCPs. In addition, the Notifying Party submits that even if some degree of cooperation between trading venues and CCPs was required to bring an innovation to the market, rival CCPs could collaborate with other trading venues such as Bloomberg and EBS.

(2651) With respect to potential significant growth in the market for the provision of clearing services for FX products, in the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party considers that there is no concrete evidence pointing towards a future material shift towards central clearing in OTC FX markets.[3315] The Notifying Party submits that the historic trends across asset classes show that clearing is unlikely to grow without a mandatory clearing obligation. According to the Notifying Party, there are currently no plans for extending mandatory clearing obligations to any type of OTC FX product in any major jurisdiction, including the EEA. In addition, according to the Notifying Party, there is also no evidence that market participants trading OTC FX instruments would spontaneously clear an increased number of trades in the near future. In addition, the Notifying Party submits that even if clearing becomes much more prevalent in the coming years, the combined entity is not uniquely placed to capture most of the increase volumes and obtain significantly better market position in FX trading in the future.

(2652) In the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party contends that the current market structure cannot give rise to any foreclosure concerns in FX trading and clearing. The Notifying Party further submits that any hypothesis on the future market development would not meet the required legal burden of proof, because such hypothesis are not sufficiently realistic and plausible.[3316]

B. The Commission's assessment

(2653) Based on the Commission's investigation and the evidence available to it, the Commission considers that the Transaction does not give rise to vertical (input foreclosure) concerns with regard to the markets for the provision of trading and clearing services for OTC FX products for the following reasons.

3313 Response to the decision pursuant to Article 6(1)(c), paragraph 41

3314 Response to the decision pursuant to Article 6(1)(c), paragraphs 46 to 47

3315 Response to the decision pursuant to Article 6(1)(c), paragraphs 50 to 62.

3316 Response to the decision pursuant to Article 6(1)(c), paragraphs 66 to 71.

(2654) *First*, post-Transaction, the combined entity would not have the ability to foreclose its rivals in the downstream market for the provision of clearing services for OTC FX products. This is because the provision of electronic trading services by Refinitiv is not an important input for the downstream market.[3317]

(2655) Firstly, only a *de minimis* share of OTC FX trades are cleared. According to the Notifying Party, less than 1% of OTC FX trades are cleared – while D2C trades are almost always uncleared, [0-5]% of D2D trades are cleared by dealers according to the Notifying Party.[3318] The fact that FX trades are very rarely cleared was also confirmed by the market investigation. The vast majority of customers indeed indicate that they do not clear their FX trades through CCPs, or only to a very limited extent.[3319] While several customers explain that they settle their FX volumes through CLS platforms,[3320] the Commission notes that the Parties are not active in this type of bilateral management services. As a result, the provision of electronic trading services for OTC FX products by FXall is not an important input for the downstream market.

(2656) Secondly, with regard to D2D trades, the Commission notes that the market presence of Matching is limited presence. In the provision of electronic D2D trades, Matching's market share amounted to [10-20]% (and to [10-20]% and [0-5]% respectively for the provision of such services (i) FX derivatives only and (ii) FX stocks only). Thirdly, it does not result from the market investigation that importance of FXall and Matching's input for the downstream market is not accurately reflected by its market shares. Consequently the combined entity would lack the market power and ability necessary to foreclose access to OTC FX trades post-Transaction.

(2657) *Second*, the Commission finds that a potential input foreclosure strategy of the combined entity post-Transaction would likely not have an adverse impact on effective competition. In addition to the elements described above, the Commission notes that a majority of customers consider that the Transaction will have either a positive (16%) or neutral (43%) impact on the markets for OTC FX trading and clearing.[3321] Only a minority of customers (5%, namely 3 customers) take the view that Transaction will have a negative impact on the on the markets for FX trading and clearing.[3322]

(2658) *Third*, given that the combined entity would not have the ability to engage in an input foreclosure strategy, and that such foreclosure strategy would likely not have a negative impact on effective competition, it is not necessary for the Commission to assess the incentives of the combined entity to engage in such a foreclosure strategy. The Commission however notes that, given the very high market shares of LSEG in the provision of clearing services for OTC FX products (namely, of [90-100]% in EEA share), and the limited presence of Refinitiv in D2D OTC FX trading (namely of [10-20]% in the EEA for electronic trading), it is unlikely that the combined entity would have incentives to engage in such an input foreclosure strategy.

3317 In accordance with paragraph 34 of the Non-Horizontal Guidelines, input foreclosure may raise competition problems only if it concerns an important input for the downstream product

3318 RFI 26 reply, paragraph 68.

3319 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

3320 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

3321 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

3322 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

C. Conclusion

(2659) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition as a result of an input foreclosure strategy of Refinitiv's OTC FX trading.

4.5.37.2. Assessment of customer foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for foreign exchange products

A. The Notifying Party's view

(2660) The Notifying Party considers the Transaction would not give rise to non-horizontal concerns with respect to the trading and clearing of FX products for the following reasons.

(2661) Regarding the ability to foreclose rival trading venues, first the Notifying Party submits that at the clearing level, very few OTC FX trades are cleared, as there is no mandatory obligation to clear such trades and market participants in FX generally prefer to manage post-trade risk bilaterally, particularly in the D2C trading of FX. Moreover, trades where there could be some incentive to clear under the UMR account for a very limited proportion of the overall market for FX products. LCH and other CCPs therefore compete in particular to try to attract the large volume of FX trades that remain bilaterally managed. Given the alternative available to customers of ForexClear in the form of bilateral management of counterparty risk, and given the presence of Eurex and CME, the combined entity will remain constrained from any ability to seek to leverage ForexClear in order to foreclose competing trading platforms of Refinitiv.

(2662) Second, the Notifying Party argues that there are credible alternatives to ForexClear that benefit from substantial capital, expertise and brand recognition and that would be well-equipped to expand their offering to benefit from any alienation by the combined entity of its customer base. For example, Eurex launched its OTC FX clearing service in 2017 in cooperation with its sister business 360T amid growing demand for OTC FX clearing, and CME has attracted volumes as a result of pricing promotions.

(2663) Third, the Notifying Party notes that customer foreclosure would not be possible from an operational point of view. When a trade is submitted for clearing through a middleware provider such as MarkitServ, ForexClear is unable to reliably identify where trades were executed as that data is not supplied to ForexClear by the middleware provider. As ForexClear receives [a very high proportion] FX trading volumes directly from MarkitServ, it is unable to discriminate between trade feeds from different venues (or indeed from D2D or D2C sources) and therefore would be unable to pursue a foreclosure strategy to disadvantage third-party trading venues.

(2664) Fourth, the Notifying Party highlights that any attempt to refuse access in a discriminatory way would be against its regulatory obligations (Art. 35 MiFIR granting a right to non-discriminatory access of trading venues to clearing services) and thus there would be no ability to foreclose rival trading venues.

(2665) Regarding the incentive to foreclose rival CCPs, as for other asset classes, notably IRDs and ETPs, the Notifying Party notes that LSEG's business and brand is based on an open access model and at odds with a strategy of foreclosure.

(2666) In the Notifying Party's response to the decision pursuant to Article 6(1)(c) , the Notifying Party reiterates that ForexClear clears limited volumes of trades executed

on rival trading venues and therefore, no rival trading venue relies on the access to ForexClear for conducting its business activities.[3323]

(2667) In the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party submits that bilateral risk management is a viable alternative to CCP services and therefore, ForexClear faces a significant competitive constrains from bilateral risk management services, and as a result focuses on attracting new trade volumes that are currently bilaterally managed and uncleared.[3324]

(2668) In the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party reiterates that the prospect of a significant future growth in FX clearing is only hypothetical and is not supported by any market evidence. Even to the opposite, analysts have commented in the past on the lack of ForexClear growth. In addition, the Notifying Party considers that even if there is a significant growth in the FX clearing market, rival CCPs such as Eurex and CME will have a good opportunity to capture new cleared volumes. Therefore, any foreclosure strategy by ForexClear in a context of growth of the market would most likely harm the combined entity and further strengthen the position of rival CCPs such as CME and Eurex, which would attract new clearing volumes instead.[3325]

(2669) In the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party contends that the current market structure cannot give rise to any foreclosure concerns in FX trading and clearing. The Notifying Party further submits that any hypothesis on the future market development would not meet the required legal burden of proof, because such hypothesis are not sufficiently realistic and plausible.[3326]

B. The Commission's assessment

(2670) Based on the Commission's investigation and the evidence available to it, the Commission considers that the Transaction does not give rise to vertical (customer foreclosure) concerns with regard to the markets for the provision of trading and clearing services for OTC FX products for the following reasons.

(2671) *First*, the Commission considers that post-Transaction the combined entity would not have the ability to prevent its upstream rivals, active in the provision of electronic trading services for OTC FX products, from accessing to LSEG's clearing services downstream, or from having an altered access to such services.

(2672) This is because clearing of OTC FX trades is limited today. According to the Notifying Party, less than 1% of OTC FX products trades are currently cleared (and around [0-5]% of D2D FX products are currently cleared, while D2C FX products are almost entirely uncleared).[3327] The fact that FX trades are very rarely cleared was also confirmed by the market investigation. An overwhelming majority of customers indeed indicate that they do not clear their FX trades through CCPs, or only to a very limited extent.[3328] While several customers explain that they settle their FX volumes through CLS platforms,[3329] the Commission notes that the Parties are not active in this type of bilateral management services. As such, even if the combined entity

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3323 Response to the decision pursuant to Article 6(1)(c), paragraph 17
3324 Response to the decision pursuant to Article 6(1)(c), paragraph 36
3325 Response to the decision pursuant to Article 6(1)(c), paragraph 38
3326 Response to the decision pursuant to Article 6(1)(c), paragraphs 66 to 71
3327 Form CO, paragraph C.IV.118
3328 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.
3329 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

restricted access to LSEG's clearing houses for FX products traded on rival D2D trading venues, these rival D2D trading venues would still have access to and could compete for over [a very high percentage] of the overall FX products D2D trading market. The Commission therefore considers that the combined entity would not have the ability post-Transaction to foreclose its upstream rivals active in the provision of electronic trading services for OTC FX products.

(2673) *Second*, the Commission finds that a potential customer foreclosure strategy of the combined entity post-Transaction would likely not have an adverse impact on effective competition. In addition to the elements described above, the Commission notes that a majority of customers consider that the Transaction will have either a positive (16%) or neutral (43%) impact on the markets for OTC FX trading and clearing.[3330] Only a minority of customers (5%, namely 3 customers) take the view that Transaction will have a negative impact on the on the markets for FX trading and clearing.[3331]

(2674) *Third*, given that the combined entity would not have the ability to engage in a customer foreclosure strategy, and that such foreclosure strategy would likely not have a negative impact on effective competition, it is not necessary for the Commission to assess the incentives of the combined entity to engage in such a foreclosure strategy.

(2675) As the Commission finds that the combined entity would have no incentives to foreclose competitors in the downstream market for the clearing of FX products, and that such strategies would likely have no meaningful impact in the downstream market for the clearing of FX products, it is not necessary to assess the incentives of the combined entity to engage in such a foreclosure strategy.

C. Conclusion

(2676) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition as a result of a customer foreclosure strategy of Refinitiv's OTC FX trading.

4.5.38. Provision of Trading (upstream) and Clearing (downstream) Services for Cash Equities

(2677) The Transaction gives rise to vertically affected market with regard to (i) upstream, the provision of trading services for cash equities (*i.e.* ETPs and company-issued stocks), and its possible sub-segments (where LSEG is active through LSE, Borsa Italiana, and Turquoise, and where Refinitiv is active through its venues eBlock for company-issued stock and Tradeweb for ETPs) and (ii) downstream, the provision of clearing services for cash equities (where LSEG is active through it clearing houses LCH Ltd, LCH SA and CC&G).

4.5.38.1. Assessment of input foreclosure regarding the provision of trading (upstream) and clearing (downstream) services for cash equities

A. The Notifying Party's view

(2678) *First*, with respect to trading services for ETPs, regarding the ability to foreclose rival CCPs, the Notifying Party firstly submits that Tradeweb's share of ETP trading

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3330 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

3331 Question 37, Questionnaire 14 to general trading customers, Doc ID 6464.

in Europe by volume is very small ([0-5]%) and so the Transaction will not have any impact. Moreover, none of Tradeweb's current volumes is cleared by any CCP so the Notifying Party submits that Tradeweb's ETP volumes cannot be considered an important input into the clearing business of any of LCH's rival CCPs. Thus, even if the combined entity attempted to deny rival CCPs access to ETP trades executed on Tradeweb's venues or provide access but on worse terms, i.e. either in the case of full or partial foreclosure, this would not undermine the ability of these CCPs to compete for ETP clearing business.[3332]

(2679) Secondly, the Notifying Party highlights that any attempt to refuse access in a discriminatory way would be against its regulatory obligations (Art. 8 EMIR and Art. 36 MiFIR granting a right to non-discriminatory access of CCPs to trade feeds) and thus there would be no ability to foreclose rival CCPs.

(2680) Thirdly, regarding the incentive to foreclose rival CCPs, the Notifying Party notes that LSEG's business and brand is based on an open access model and LSEG would therefore have no incentive to put its entire business model at risk in the hope of benefitting Tradeweb's ETP trading business. The Notifying Party argues that this is demonstrated by the fact that LSEG is already active in the provision of both trading and clearing services for ETPs, but still its cash equity trading venues offer interoperable clearing links to third party CCPs. Moreover, Tradeweb's business model (across all asset classes, including those where clearing is more prevalent such as interest rate derivatives) is to be agnostic to where a customer chooses to clear a trade. According to the Notifying Party, Tradeweb is not able to instruct or steer a customer towards any specific CCP if the customer does not want to clear its trades with that CCP. If Tradeweb attempted to do this, it would expect a severe and negative reaction from its customer base across all asset classes and not just with respect to the asset class where Tradeweb attempted to influence the clearing choice, in the Notifying Party's view.

(2681) *Second*, with respect to company-issued stocks, The Notifying Party submits that the arguments submitted in relation to the clearing and trading of ETPs equally apply to the vertical relationship between regarding the provision of trading (upstream) and clearing (downstream) services for company-issued stocks.[3333]

(2682) In addition, specifically relating to the vertical relationship between regarding the provision of trading (upstream) and clearing (downstream) services for company-issued stocks, the Notifying Party explains that none of Tradeweb's volumes are currently cleared, and that Tradeweb does not expect that a significant volume of its trades will become centrally cleared within the next 12–18 months.[3334]

(2683) Finally, the Notifying Party submits that Tradeweb's very small market share in the provision of trading services for company-issued stocks ([0-5]%) is unlikely to have an impact on the combined entity's incentives to foreclose rival CCPs. The Notifying Party explains, as a demonstration of the current lack of incentives for LSEG to engage in such foreclosure strategies, that LSEG has already been active in the provision of both trading and clearing services for company-issued equities for a number of years without giving rise to any foreclosure concerns.[3335]

3332 Form CO, paragraph A.272.
3333 Form CO, paragraph A.281
3334 Form CO, paragraph A.283
3335 Form CO, paragraph A.282 and A.283

(2684) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party provides additional arguments regarding the specific link between the trading of ETPs and the clearing of cash equities. The Notifying Party first submits that Tradeweb's ETP feeds should not be regarded as an essential input for CCPs. In support of this assertion the Notifying Party emphasizes that none of the trade volumes on Tradeweb's cash equity trading venues are currently cleared.[3336] Therefore, in the current market structure, none of the currently operating CCPs, including EuroCCP, Eurex and SIX x-clear, rely on trade feeds from Tradeweb to compete.

(2685) Second, Tradeweb's market share of ETP trading in Europe is not high enough to justify any foreclosure concerns, since it is de minimis ([0-5]%) in terms of number of executed trades and only [10-20]% by value of the trades.[3337] According to the Notifying Party, the appropriate metric to measure the significance of Tradeweb's trade feeds to CCPs is the number of trades, because CCPs usually charge their customer for clearing services on the basis of trade volumes. In addition, Tradeweb does not expect a significant volume of its ETP trades to be cleared within the near future.[3338]

(2686) Third, with respect to a potential innovation-based foreclosure strategy, in the response to the decision pursuant to Article 6(1)(c), the Notifying Party considers that innovation in the ETP trading is driven by ETP issuers. The Notifying Party contends that there is no particular collaboration required between a CCP and a trading venue to introduce new ETP products for clearing.[3339] With regard to the recent implementation of a new risk management and trade processing platform by LCH, the Notifying Party explains that LCH reached out to all trading venues and market participants such as clearing brokers and buy-side market participant to test and integrate the new service.[3340]

(2687) In addition, the Notifying Party considers that even if some degree of cooperation between trading venues and CCPs was required to bring an innovation to the market, there are still enough trading venues other than Tradeweb, with which rival CCPs could collaborate in launching new products.[3341]

(2688) Fourth, in the response to the decision pursuant to Article 6(1)(c), the Notifying Party claims as well that there is no material evidence that the market of ETP trading would shift towards central clearing for bilaterally negotiated ETPs in the near future. Firstly, the Notifying Party submits that the historical trends across asset classes shows that clearing in bilateral OTC segment is unlikely to grow in the absence of a mandatory clearing obligation.[3342] Secondly, the Notifying Party claims that the effect of CSDR will not push buy-side participants to adopt central clearing voluntarily.[3343] In support of this assumption, the Notifying Party emphasizes that the adoption of central clearing entails significant cost in member or broker fees for buy-side market participants.

3336 Response to the decision pursuant to Article 6(1)(c), paragraph 94
3337 Response to the decision pursuant to Article 6(1)(c), paragraph 96
3338 Response to the decision pursuant to Article 6(1)(c), paragraph 80
3339 Response to the decision pursuant to Article 6(1)(c), paragraph 107
3340 Response to the decision pursuant to Article 6(1)(c), paragraph 108
3341 Response to the decision pursuant to Article 6(1)(c), paragraph 109
3342 Response to the decision pursuant to Article 6(1)(c), paragraph 111
3343 Response to the decision pursuant to Article 6(1)(c), paragraph 113

(2689) Fifth, in the response to the decision pursuant to Article 6(1)(c), the Notifying Party submits as well that the threat of customers switching to other trading venues such as Bloomberg and RFQHub will prevent the combined entity from engaging in an input foreclosure strategy.[3344] The Notifying Party emphasizes that Bloomberg is the leading RFQ-based trading venue with over half the market for ETP RFQ trades in terms of both volume and value. According to the Notifying Party, the absence of client fees on Tradeweb does not give Tradeweb a competitive advantage against Bloomberg, because Bloomberg's RFQ-based ETP trading services are freely available to all buy-side clients with subscription to Bloomberg terminals.[3345]

B. The Commission's assessment

(2690) Based on the Commission's investigation and the evidence available to it, the Commission considers that the Transaction does not give rise to vertical (input foreclosure) concerns with regard to the markets for the provision of trading and clearing services for cash equities products for the following reasons.

(2691) *Firstly*, the Commission notes that the Transaction does not significantly impede effective competition due to vertical (input foreclosure) concerns regarding the trading and clearing of cash equities products.

(2692) First, the Commission finds that, as explained below, the market investigation shows that the combined entity would lack of ability to engage in such strategy for ETPs.

(2693) As a first element, the Commission notes that LSEG is currently already vertically integrated regarding the trading and clearing of ETPs as it is active (i) in trading of ETPs, through LSE and Borsa Italiana, and (ii) in clearing of ETPs, through LCH. In this regard, it is important to note that there is no evidence stemming from the market investigation that LSEG would have tried to engage in an input foreclosure strategy since it is vertically integrated for ETPs. With the Transaction, LSEG's market position will be increased in the trading of ETPs by [0-5]% in volume and [10-20]% in value, according to Refinitiv's 2019 market share.[3346]

(2694) As a second element, the Commission considers that the Transaction will not provide the combined entity with the ability to engage in an input foreclosure strategy in the trading and clearing of ETPs because Tradeweb's ETP trades are not an important input for the provision of ETP clearing services. Based on the Non-Horizontal Merger Guidelines, input foreclosure raises competition concerns only if it involves an important input for the downstream product.[3347] However, Tradeweb's ETP trades are not an important input for the provision of clearing services for ETPs given that none of Tradeweb's ETP trades are cleared today and that LCH and EuroCCP successfully compete in the downstream clearing market without clearing trades that are traded on Tradeweb. In addition, it results from the market investigation that there are no reliable evidence that Tradeweb's trading services will be essential inputs for cash equity clearing players in the future. Indeed, while Tradeweb is planning to connect to EuroCCP, it does not expect a significant volume of its ETP

3344 Response to the decision pursuant to Article 6(1)(c), paragraph 121
3345 Response to the decision pursuant to Article 6(1)(c), paragraph 124
3346 See Table 70 above.
3347 Non-Horizontal Merger Guidelines, paragraph 34.

trades to be cleared within the near future (at most [a small percentage] within the next 12–18 months, and at most [a small percentage] in the next three years).[3348]

(2695) As a third element, the Commission considers that the Transaction will not provide the combined entity with the ability to engage in an input foreclosure strategy in the trading and clearing of ETPs because the combined entity will not have a significant degree of market power in ETP trading. According to the Non-Horizontal Merger Guidelines, for input foreclosure to be a concern, the combined entity must have a significant degree of market power in the upstream market.[3349] In the present case, the combined entity would lack post-Transaction the market power upstream that would give it the ability to foreclose rivals in the downstream markets. In the provision of ETP trading services in the EEA in 2019, the market share of Tradeweb is [0-5]% (by number of executed trades) and [10-20]% (by value of trades).[3350] Post-Transaction, the combined entity will continue to be constrained by several rivals in the provision of trading services for ETPs, such as Deutsche Börse, Euronext, SIX, and Bloomberg, whose respective EEA-wide 2019 market shares amounted to [20-30]%, [10-20]%, [5-10]%, and [0-5]%).[3351] Even in the narrower market for ETP trading based on Request for Quotes ("RFQ") venues, where Tradeweb would have an EEA-wide 2019 share of [40-50]% by number of executed trades (and where LSEG is not active), the combined entity will face strong competition constrains from the number one player, Bloomberg, which has a market share of [50-60]%.

(2696) Consequently the combined entity would lack the market power and ability necessary to foreclose access to ETP products trading post-Transaction.

(2697) Second, the Commission finds that a potential input foreclosure strategy of the combined entity post-Transaction would likely not have an adverse impact on effective competition. In addition to the elements described above, the Commission notes that half of customers consider that the Transaction will have either a positive (9%) or neutral (40%) impact on the markets for ETP trading and clearing. Only a minority of customers (4%, namely 3 customers) take the view that Transaction will have a negative impact on the on the markets for ETP trading and clearing.[3352]

(2698) Third, given that the combined entity would not have the ability to engage in an input foreclosure strategy, and that such foreclosure strategy would likely not have a negative impact on effective competition, it is not necessary for the Commission to assess the incentives of the combined entity to engage in such a foreclosure strategy to conclude that the Transaction does not significantly impede effect competition as a result of an input foreclosure strategy of the combined entity's ETP trading.

(2699) *Secondly*, the Commission notes that the Transaction does not significantly impede effective competition due to vertical (input foreclosure) concerns regarding the trading and clearing of company-issued stocks.

3348 See RFI 26 reply, question 11, dated 17 July 2020.

3349 Non-Horizontal Merger Guidelines, paragraph 35.

3350 See Section 4.3.5.1 of this Decision. The combined market share of the Parties in 2019 would be [30-40]% by volume and [20-30]% by value. Nonetheless, the divestment of Borsa Italiana (see Section 5 below) would partally remove this overlap, bringing these combined market shares down to [20-30]% by volume and [20-30]% by value.

3351 See Section 4.3.5.1 of this Decision.

3352 Question 18, Questionnaire 14 to general trading customers, Doc ID 6464.

(2700) First, the Commission finds that, as explained below, the market investigation shows that the combined entity would lack of ability to engage in such strategy for company-issued stocks.

(2701) As a first element, the Commission notes that LSEG is currently already vertically integrated regarding the trading and clearing of company-issued stocks as it is active (i) in trading of company-issued stocks, through LSE, Borsa Italiana, and Turquoise, and (ii) in clearing of company-issued stocks, through LCH. In this regard, it is important to note that there is no evidence stemming from the market investigation that LSEG would have tried to engage in any input foreclosure strategy since it vertically integrated in the trading and clearing of company-issued stocks.

(2702) As a second element, the Commission considers that the Transaction will not provide the combined entity with the ability to engage in an input foreclosure strategy in the trading and clearing of company-issued stocks given that Refinitiv's increment is de minimis (namely of less than [0-5]% based on 2019 figures). In addition, post-Transaction, the combined entity will continue to be constrained by several rivals in the provision of trading services for company-issued stocks, such as Cboe, Euronext, and Deutsche Börse, which respective EEA-wide 2019 market shares amounted to [10-20]%, [10-20]%, and [10-20]%).[3353]

(2703) As a third element, the Commission considers that the Transaction will not provide the combined entity with the ability to engage in an input foreclosure strategy in the trading and clearing of company-issued stocks because Refinitiv (eBlock)'s company-issued stocks trades are not an important input for the provision of company-issued stocks clearing services given that none of eBlock's company-issued stocks trades are cleared today and that LCH and EuroCCP successfully compete in the downstream market for company-issued stocks clearing services without clearing trades that at traded on Tradeweb. In addition, it results from the market investigation that there are no reliable evidence that eBlock's trading services will become essential inputs for equity clearing players in the future.

(2704) Consequently the combined entity would lack the market power and ability necessary to foreclose access to company-issued stock trades post-Transaction.

(2705) Second, the Commission finds that a potential input foreclosure strategy of the combined entity post-Transaction would likely not have an adverse impact on effective competition. In addition to the elements described above recital, the Commission notes that customers did not raise concerns that the Transaction would have an adverse effect on competition in the trading and clearing of company-issued stocks.[3354]

(2706) Third, given that the combined entity would not have the ability to engage in an input foreclosure strategy, and that such foreclosure strategy would likely not have a negative impact on effective competition, it is not necessary for the Commission to assess the incentives of the combined entity to engage in such a foreclosure strategy to conclude that the Transaction does not significantly impede effect competition as a result of an input foreclosure strategy of the combined entity's company-issued stocks trading. For the sake of completeness the Commission notes that, given the very small increment brought by Refinitiv in the trading of company-issue stocks, the

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3353 See Section 4.4.4.3 of this Decision.

3354 Questionnaire 14 to general trading customers, Doc ID 6464.

Transaction would not alter the combined entity's incentives to engage in an input foreclosure strategy.

C. Conclusion

(2707) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition due to vertical (input foreclosure concerns) regarding the vertical links between (i) the provision of trading and clearing services for ETPs and (ii) the provision of trading and clearing services for company-issued stocks.

4.5.38.2. Assessment of customer foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for Exchange Traded Products

A. The Notifying Party's view

(2708) Regarding the ability to foreclose rival trading venues, first the Notifying Party submits that LCH is only one of a number of competing providers of ETP clearing services in the EEA. Almost all the trading venues on which LCH provides clearing services are already simultaneously served by EuroCCP and/or SIX x-clear. Therefore, even if LCH were to cease serving competing trading venues or only offer services on worse terms, the effect on these trading venues' ability to compete would be very limited, as most trading venues served by LCH are also connected to other CCPs.[3355]

(2709) Second, the Notifying Party highlights that any attempt to refuse access in a discriminatory way would be against its regulatory obligations (Art. 35 MiFIR granting a right to non-discriminatory access of trading venues to CCPs) and thus there would be no ability to foreclose rival trading venues.

(2710) Regarding the incentive to foreclose rival CCPs, the Notifying Party notes that LSEG's business and brand is based on an open access model. The Notifying Party argues that it is implausible that the acquisition of a stake in Tradeweb's small ETP trading venue would in any way undermine LSEG's and LCH's commitment to this open access strategy, given that: (i) LSEG is already active in the provision of ETP trading services; and (ii) there is no reason to believe that Tradeweb's ETP trading venue will provide LSEG with a materially more credible or competitive trading proposition on which to build than LSEG's existing trading venues (as evidenced by Tradeweb's small share of ETP trading volumes).

(2711) Third, with respect to company-issued stocks, The Notifying Party submits that the arguments submitted in relation to the clearing and trading of ETPs equally apply to the vertical relationship between regarding the provision of trading (upstream) and clearing (downstream) services for company-issued stocks.[3356]

(2712) In addition, the Notifying Party submits that Tradeweb's very small market share in the provision of trading services for company-issued stocks ([0-5]%) is unlikely to have an impact on the combined entity's incentives to foreclose rival CCPs. The Notifying Party explains, as a demonstration of the current lack of incentives for LSEG to engage in such foreclosure strategies, that LSEG has already been active in

3355 Form CO, paragraph A.277.

3356 Form CO, paragraph A.281

the provision of both trading and clearing services for company-issued equities for a number of years without giving rise to any foreclosure concerns[3357]

(2713) In its response to the decision pursuant to Article 6(1)(c), the Notifying Party provides additional arguments regarding the specific link between the trading of ETPs and the clearing of cash equities. The Notifying Party first considers that LCH's market power in the clearing of cash equities is not sufficient to foreclose Tradeweb's rival trading venues and that LCH faces strong competition from other CCPs such as EuroCCP, SIX x-clear and Eurex.

(2714) First, according to the Notifying Party, LSEG's market share in cash equity clearing of [50-60]% does not reflect the competitive landscape, due to the exclusion of SIX x-clear from the European Central Bank data. The Notifying Party claims that SIX x-clear is a close competitor to EquityClear and EuroCCP and that its market share is comparable to Eurex's market share.[3358] Second, the Notifying Party emphasizes that the market position of EuroCCP, given its market share and ability to meet the liquidity needs of future customers, would act as a disciplinary factor preventing any attempt of foreclosure strategy against rival trading venues.[3359] In addition, the Notifying Party indicates that there is no evidence that LSEG would benefit from a potential growth in the trading ETPs traded on RFQ platform more than other competitors would.

(2715) Second, in the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party also considers that the Commission fails to take into account LCH's longstanding commitment to open and non-discriminatory provision of clearing services.[3360] According to the Notifying Party, EquityClear's commercial success is a result of its open access model and the fact that LCH receives trade feeds on an equal and open basis from all connected venues. The Notifying Party contends that a customer foreclosure strategy would result in a loss of business for LCH from many cash equity trading venues that are bigger than Tradeweb, such as Euronext, Cloe European Equities, Nasdaq, UBS MTF and SIX Swiss Exchange.

(2716) Third, with respect to a potential innovation-based foreclosure strategy, in the Notifying Party's response to the decision pursuant to Article 6(1)(c), the Notifying Party considers that the collaboration between trading venues and CCPs is of negligible importance for the development of new ETPs. According to the Notifying Party, innovation at clearing level is driven by customers as well as new regulatory requirements. The Notifying Party claims that due to their simplicity, in general, ETPs are clearable upon issuing and therefore no CCP would be in a position to hinder the clearing of new products traded on any trading venue.[3361]

(2717) In addition, the Notifying Party further submits that even if some degree of cooperation between trading venues and CCPs was required to bring an innovation to the market, rival trading venues would be in a position to collaborate with rival trading CCPs such as EuroCCP, SIX x-clear and Eurex to bring these innovation to the market.[3362]

3357 Form CO, paragraph A.282 and A.283
3358 Response to the decision pursuant to Article 6(1)(c), paragraph 129
3359 Response to the decision pursuant to Article 6(1)(c), paragraph 130
3360 Response to the decision pursuant to Article 6(1)(c), paragraph 133
3361 Response to the decision pursuant to Article 6(1)(c), paragraph 136
3362 Response to the decision pursuant to Article 6(1)(c), paragraph 137

B. The Commission's assessment

(2718) Based on the Commission's investigation and the evidence available to it, the Commission considers that the Transaction does not give rise to vertical (customer foreclosure) concerns with regard to the markets for the provision of trading and clearing services for cash equities for the following reasons

(2719) *Firstly*, the Commission considers that the Transaction does not significantly impede effective competition due to vertical (customer foreclosure) concerns regarding the trading and clearing of ETPs.

(2720) First, the market investigation show that the combined entity would lack of ability to engage in such a customer strategy, to foreclose its rivals in the upstream market for the provision of trading services for ETPs.

(2721) As a first element, the Commission notes that LSEG is currently already vertically integrated regarding the trading and clearing of ETPs as it is active (i) in trading of ETPs, through LSE and Borsa Italiana, and (ii) in clearing of ETPs, through LCH. In this regard, it is important to note that there is no evidence stemming from the market investigation that LSEG would have tried to engage in an input foreclosure strategy since it is vertically integrated for ETPs. With the Transaction, LSEG's market position will be increased in the trading of ETPs of [0-5]% in volume and [10-20]% in value, according to Refinitiv's 2019 market share.[3363]

(2722) As a second element, the Commission finds that, while an ability to foreclose customer may exists where the combined entity is an important customer of the upstream input,[3364] LSEG' clearing activity is not an important customer for ETP trading players given that LSEG's clearing services are not essential inputs for ETP trading players. This is because virtually all the trading venues for which LSEG provides clearing services are already simultaneously served by EuroCCP and/or SIX x-clear.[3365] In light of the fact that Tradeweb is active in ETP trading services through an RFQ offering, the Commission notes that the same is true for ETP trades that are executed via RFQ (e.g. executed on Tradeweb's ETP venue) - LSEG's clearing services are not essential inputs for RFQ ETP trading players. In 2019, RFQ-based ETP trading as a whole accounted for less than 0.1% of centrally cleared cash equity trades by volume and 5.5% by value of trades. In addition, there is no reliable evidence that LSEG's clearing services will become essential for ETP trading players in the future and it is unclear whether the Central Securities Depositories Regulation ("CSDR") would increase the importance of clearing for ETP trades that are executed via RFQ (as is the case with Tradeweb).

(2723) Second, it is unlikely that the combined entity would have the incentive to restrict access to its ETP clearing services in order to foreclose competitors in ETP trading. First, LSEG is already vertically integrated today (offering both cash equity trading services and equity clearing services) but it offers open access to its clearing services to several LSEG competitors. Second, Tradeweb holds a minimal share in ETP trading. Today, none of Tradeweb's ETP trades are cleared and as explained above, in the future, Tradeweb does not expect that a significant percentage would be cleared. Given the very small increment brought by Refinitiv in the trading of ETPs,

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3363 See Table 70 above.

3364 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

3365 Form CO, paragraph A.277.

the Transaction would not alter the combined entity's incentives to engage in a customer foreclosure strategy.

(2724) Third, the Transaction is unlikely to have an impact on the market for ETP trading. Only a minority of respondents (4%) expect that the Transaction will have a negative impact on the markets for ETF trading and/or ETF clearing.[3366]

(2725) *Secondly*, the Commission considers that the Transaction does not significantly impede effective competition due to vertical (customer foreclosure) concerns regarding the trading and clearing of company-issued stock.

(2726) First, the Commission finds that the Transaction would not provide to the combined entity the ability to engage in such a customer strategy (to foreclose its rivals in the upstream market for the provision of trading services for company-issued stock). According to the Non-Horizontal Merger Guidelines, such an ability exists where the combined entity is an important customer of the upstream input.[3367] But the Commission finds that this will not be the case post-Transaction given that LSEG's clearing services are not essential inputs for company-issued stock trading players. Indeed, the overwhelming majority of trading venues for which LSEG provides company-issued stock clearing services are already simultaneously served by EuroCCP and/or SIX x-clear.[3368] In addition, while LSEG's market share in the clearing of cash equities is high (namely [50-60]% in 2019), LSEG will continue to face, post-Transaction, competitive constrains from its main competitor, EuroCCP, whose market share in CCP clearing of cash equities is material (namely [30-40]% in 2019).

(2727) In addition, the Commission notes that LSEG is currently already vertically integrated regarding the trading and clearing of company-issued stocks as it is active (i) in trading of company-issued stocks, through LSE, Borsa Italiana, and Turquoise, and (ii) in clearing of company-issued stocks, through LCH. In addition, there is no evidence stemming from the market investigation that LSEG would have tried to engage in any input foreclosure strategy since it vertically integrated in the trading and clearing of company-issued stocks. Given the above and the fact that the increment brought by the Transaction (via Refinitiv) in company-issued stocks trading is *de minimis* ([a very small percentage]), the combined entity's ability to engage in customer foreclosure will remain unchanged by the Transaction.

(2728) Second, it is unlikely that the combined entity would have the incentive to restrict access to its company-issued stock clearing services in order to foreclose competitors in company-issued stock trading. First, LSEG is already vertically integrated today (offering both company-issued stock trading services and company-issued stock clearing services) but it offers open access to its clearing services to several LSEG competitors. Second, eBlock holds a *de minimis* share in company-issued stock trading ([a very small percentage] in 2019) and today, none of eBlock's company-issued stock trades are cleared. Given the very small increment brought by Refinitiv in the trading of company-issued stock, the Transaction would not alter the combined entity's incentives to engage in a customer foreclosure strategy.

3366 Question 18, Questionnaire 14 to general trading customers, Doc ID 6464.

3367 Non-Horizontal Merger Guidelines, paragraphs 61 and 66.

3368 Form CO, paragraph A.277.

(2729) Third, as regards impact, the Commission notes that customers did not raise concerns that the Transaction would have an adverse effect on competition in the trading and clearing of company-issued stocks.[3369]

C. Conclusion

(2730) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition, following a customer foreclosure strategy involving the provision of clearing services for cash equity (especially clearing services for ETPs and company-issued stocks).

4.5.39. Provision of Trading (upstream) and Clearing (downstream) services for Cash Bonds

(2731) The Transaction gives rise to a vertically affected market with regard to, upstream, the market for the provision of trading services for cash bonds (EGBs and non-EGB bonds, including non-government bonds), and its possible sub-segments (where LSEG and Refinitiv are both active, and their combined market share exceeds 30%) and, downstream, the market for the provision of clearing services for cash bonds, and its possible sub-segments (where only LSEG and Refinitiv is active, with a market share of [90-100]%).

4.5.39.1. Assessment of input foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for Cash Bonds

A. The Notifying Party's view

(2732) With regard to the non-horizontal link between the provision of trading and clearing services for cash bonds, the Notifying Party submits that the combined entity does not have the ability or the incentives to foreclose rival CCPs.

(2733) First, as regards ability, the Notifying Party considers that the non-horizontal link between Tradeweb and LSEG is negligible because (i) the Notifying Party claims that, generally, only D2D government bonds are cleared and (ii) Tradeweb's share of D2D government bond trading in EAA is small ([0-5]%). Given that Tradeweb is mainly active in the D2C bond trading and almost none of those trades are cleared, the Notifying Party contend that Tradeweb's trade flows are definitely not an important input for bond clearing in the EEA.[3370]

(2734) Furthermore, the Notifying Party considers that the current regulation prevents the combined entity from denying access of rival CCPs to trade feeds. MiFIR (Art. 36 (1)) grants a right for access to trade feeds in non-discriminatory and transparent basis.

(2735) Second, as regards incentives the Notifying Party submits that LSEG's previous behaviour demonstrates the absence of input foreclosure risk.[3371] Given MTS's position in bond trading, LSEG would hypothetically have the ability to foreclose other clearing houses in order to favour LCH and CC&G. However, the bonds traded on MTS Cash venues are cleared by various clearing houses, including CCPs not operated by LSEG – i.e. Keler, Strate and TASE. The Notifying Party claims that the LSEG's past behaviour indicates that the LSEG has no commercial interest in

3369 Questionnaire 14 to general trading customers, Doc ID 6464.
3370 Form CO, paragraph B.331
3371 Form CO, paragraph B.332

breaking its connection with these third-party CCPs and therefore, has no incentive to engage in any input foreclosure of competitors in the bond clearing market.

(2736) Based on the above-mentioned arguments, the Notifying Party concludes that the Transaction does not give rise to any input foreclosure concerns with respect to the linked markets for trading and clearing of cash bonds.

B. The Commission's assessment

(2737) Based on the Commission's investigation and the evidence available to it, the Commission considers that the Transaction does not give rise to vertical (input foreclosure) concerns with regard to the markets for the provision of trading and clearing services for cash bonds for the following reasons.

(2738) *Firstly*, the Commission finds that the Transaction would not increase the ability of the combined entity to engage in an input strategy for cash bonds given that Refinitiv's activities in cash bond trading does not represent an important input for cash bond clearing houses.

(2739) First, it is important to note that there is no mandatory clearing obligations for cash bonds and that, according to the Notifying Party 85-90% of cash bonds trades go uncleared and, of the bond trades that are cleared, these are predominantly D2D government bond, while D2C trades are almost entirely uncleared.[3372] In addition, the Notifying Party does not expect these proportions would materially different from the proportion of overall D2C cash bond trades that are uncleared) As a result, the position of the combined entity position in D2D government bond trading is the most representative procy to assess the ability to foreclosure

(2740) Second, the Commission notes that LSEG is currently already vertically integrated regarding the trading and clearing of cash bonds as it is active in cash bonds trading through MTS and in cash bonds clearing through LCH. More specifically, the market share of LSEG in the provision of D2D non-government bond trading is already high, and amounted to [40-50]% in 2019. In this regard, it is important to note that, despite its very high market share in D2D non-government bond trading, there is no evidence stemming from the market investigation that LSEG would have tried to engage in an input foreclosure strategy since it is vertically integrated for cash bonds.

(2741) Third, the Commission notes that the position of Refinitiv in D2D government bond trading is not important, but rather de minimis. In 2019, Refinitiv's in the trading of D2D government bonds was only [0-5]%, which indicates that it is not an important input for cash bond clearing houses. As such, the ability of the combined entity to engage in input customer strategies for cash bonds remain unchanged by the Transaction given that Refinitiv's activities in cash bond trading does not represent an important input for cash bond clearing houses.

(2742) *Secondly*, the Commission considers that the Transaction would not increase the incentives of the combined entity to engage in an input strategy for cash bonds given Refinitiv's *de minimis* activities in D2D government bond trading.

(2743) *Thirdly*, the Commission finds that a potential customer foreclosure strategy of the combined entity post-Transaction would likely not have an adverse impact on effective competition. In addition to the elements described above, the market

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3372 Form CO, paragraph B.14

investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the downstream bond clearing market. For the sake of completeness, the Commission notes that, regarding EGBs in particular, the majority of buy-side customers consider that the Transaction will have either a positive or neutral impact on prices (respectively 8% and 58%), quality (respectively 10% and 70%), innovation (namely 0% and 70%) of EGB clearing services.[3373] Similarly, the majority of sell-side customers consider that the Transaction will have either a positive or neutral impact on prices (respectively 7% and 80%), quality (respectively 13% and 88%), innovation (namely 0% and 94%) of EGB clearing services,[3374] and no clearing house consider that the Transaction would have a negative impact on effective competition with regard to EGB clearing services.[3375]

C. Conclusion

(2744) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the downstream markets for the provision of clearing services for cash bonds, following an input foreclosure strategy involving the provision of trading services for cash bonds.

4.5.39.2. Assessment of customer foreclosure relating to the provision of trading (upstream) and clearing (downstream) services for Cash Bonds

A. The Notifying Party's view

(2745) With regard to the non-horizontal link between the provision of trading and clearing services for cash bonds, the Notifying Party submits that the combined entity does not have the ability or the incentives to foreclose rival trading venues in a potential customer foreclosure strategy.

(2746) First, as regards ability the Notifying Party claims that the governance structure of LCH would not allow LCH to engage in a customer foreclosure strategy against rival trading venues.[3376] The Notifying Party indicates that LSEG is publicly committed to open access model, meaning that clearing services must be offered on terms that are fair, reasonable and non-discriminatory. In addition, the LCH's open access arrangement include customer representation on boards and committees.

(2747) With regard to CC&G specifically, the Notifying Party indicated that CC&G clears only [0-5]% of all cash bonds trades in the EEA and currently receives trade flow only from […]. Therefore, with respect to CC&G, the Transaction will not lead to any material change in the competitive dynamics.

(2748) The Notifying Party also considers that the current regulation prevents the combined entity from denying access to rival trading venues to clearing services or adopting any form of discriminatory treatment.[3377] According to the Notifying Party, Article 31(1) MiFIR imposes an obligation on CCPs to grant non-discriminatory access to trading venues.

3373 Question 48, Questionnaire 5 to EGB buy-side customers, Doc ID 6476.
3374 Question 58, Questionnaire 6 to EGB sell-side customers, Doc ID 6477.
3375 Question 29, Questionnaire 7 to EGB clearing competitors, Doc ID 6478.
3376 Form CO, paragraph B.321.
3377 Form CO, paragraph B.324.

(2749) In addition, the Notifying Party considers that the combined entity will continue to be competitively constrained at downstream level by alternative risk management models. There is no clearing obligation for any cash bond trades and therefore, in case of any foreclosure strategy, customers can turn to uncleared trading options. As such, the Notifying Party considers that LSEG would lack the market power downstream to engage in any form of customer foreclosure strategy.

(2750) Second, as regards incentives, the Notifying Party submits that the LSEG's past behaviour demonstrates the absence of customer foreclosure risk.[3378] Given that LSEG is active in both upstream (trading) and downstream (clearing) markets since 2012, hypothetically, LSEG already has the ability to foreclose other trading venue to which it provides clearing services. The Notifying Party claims that the lack of previous foreclosure strategies from LSEG indicates that LSEG has no commercial interest in breaking its connection with third-party trading venues. Given Tradeweb's very small share in D2D government bonds trading (in light of the fact that only D2D government bond trades are cleared, while D2C trades are almost entirely uncleared), the Notifying Party claims that the Transaction would not lead to any change in LSEG's incentive to foreclosure rival trading venues.

(2751) Based on the above arguments, the Notifying Party concludes that the Transaction does not give rise to any consumer foreclosure concerns on the linked markets for the trading and clearing of EGBs.

B. The Commission's assessment

(2752) Based on the Commission's investigation and the evidence available to it, the Commission considers that the Transaction does not give rise to vertical (customer foreclosure) concerns with regard to the markets for the provision of trading and clearing services for cash bonds for the following reasons.

(2753) *Firstly*, the Commission finds that the Transaction would not increase the ability of the combined entity to engage in a customer strategy for cash bonds given that only a very small share of cash bond trades are cleared. Indeed, as mentioned in the above section, according to the Notifying Party 85-90% of cash bonds trades go uncleared and, of the bond trades that are cleared, these are predominantly D2D government bond, while D2C trades are almost entirely uncleared.[3379]

(2754) First, given that government bonds and D2C cash bonds remain almost entirely uncleared, with no indications that this would change in the near future, the Commission finds that the combined entity cannot have the ability to engage in customer foreclosure strategies against trading venues regarding government bonds and D2C cash bond trades. Even if the combined entity succeeded in completely restricting access to LSEG's clearing houses for non-government bonds and D2C government bonds traded on rival trading venues, these rival trading venues would still have access to and could compete for the very vast majority of the overall EGB trading market.

(2755) Second, with regard to D2D government bonds, it is also unlikely that the combined entity would have the ability to engage in customer foreclosure strategies given that

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3378 Form CO, paragraph B.325.

3379 Form CO, paragraph B.14. In addition, more than 98% of D2C bonds go uncleared, and the Notifying Party does not expect these proportions for D2C government bonds and D2C non-government bonds to be materially different from the proportion of overall D2C cash bond trades that are uncleared. See also RFI 47 reply, question 6, dated 16 November 2020.

there is no clearings obligation and only a minority of such trades are currently cleared. In addition, the Commission notes that the Transaction does not alter the combined entity's ability to engage in customer foreclosure strategies. Indeed, LSEG is currently already vertically integrated regarding the trading and clearing of cash bonds as it is active in cash bonds trading through MTS and in cash bonds clearing through LCH. More specifically, the market share of LSEG in the provision of D2D non-government bond trading is already high, and amounted to [40-50]% in 2019. In this regard, it is important to note that, despite its very high market share in D2D non-government bond trading, there is no evidence stemming from the market investigation that LSEG would have tried to engage in an input foreclosure strategy since it is vertically integrated for cash bonds. In addition, Refinitiv's increment in the provision of D2D government is de minimis ([0-5]%) which indicates that the Transaction will likely not alter the competitive dynamics regarding the vertical link in trading and clearing of D2D government bonds.

(2756) *Secondly*, the Commission considers that the Transaction would not increase the incentives of the combined entity to engage in a customer strategy for cash bonds given Refinitiv's de minimis activities in D2D government bond trading.

(2757) *Thirdly*, the Commission finds that a potential input foreclosure strategy of the combined entity post-Transaction would likely not have an adverse impact on effective competition. In addition to the elements described above, the market investigation did not provide substantiated indications or evidence that the Transaction would have a negative impact on the downstream bond clearing market.

C. Conclusion

(2758) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition in the upstream markets for the provision of trading services for cash bonds, following a customer foreclosure strategy involving the provision of clearing services for cash bonds.

4.5.40. Non-Horizontal Overlap concerning index licensing markets

(2759) During the market investigation, one customer of the Parties, RIMES, raised the issue of potential conglomerate effects involving index licensing. RIMES purchases indices from the Parties and prepares custom feeds that it sells to asset managers and asset owners.[3380]

4.5.40.1. The Notifying Party's view

(2760) The Notifying Party submits that the proposed Transaction does not give rise to conglomerate effects concerns with respect to index licensing. *First*, the Notifying Party considers that the combined entity would not have the ability to engage in a foreclosure strategy through bundling because they lack a sufficiently large common pool of end-customers who are buying indices from both Parties. Different types of indices are fundamentally different products, which serve different purposes to different end-customers. *Second*, the Notifying Party suggests that the combined entity would not have the incentive to engage in a foreclosure strategy through bundling. The study of the *Autorité des marchés financiers* ("AMF") that Rimes

3380 RIMES Position Paper, 12 August 2020, para. 13, Doc ID 5835.

cites[3381] does not refer specifically to the incentives of LSEG or any bundling strategy implemented by LSEG in the past.[3382]

4.5.40.2. The Commission's assessment

(2761) The Commission notes RIMES' concerns regarding the commercial practices of the Parties in index licensing include: (i) imposing unjustified price increases for index data; (ii) using opaque licensing terms; (iii) bundling of "must-have" indices with indices that are of little or no use; and (iv) information harvesting from customers with a view to arbitrarily impose price increases.[3383] RIMES submitted that it agrees with the market definition of the Commission identifying separate markets for UK equities index licensing and FX Benchmarks.[3384] RIMES also submitted an initial views memorandum from AMC Economics which acknowledges that the theories of harm put forward by RIMES are *"better categorized under conglomerate effects*".[3385] However, RIMES did not explain how the Transaction would give to the combined entity the ability and the incentive a strong market position from one market to another nor did it identify the relevant markets where such leveraging could happen.

(2762) If RIMES' submissions were understood to put forward a conglomerate effects theory of harm based on bundling of FTSE Russell indices and Refinitiv indices post-Transaction,[3386] the Commission considers that such strategy would not have appreciable impact on competition in different index licensing markets for the following reasons:[3387]

(a) Any potential impact of such bundling strategy would be mitigated by the ability of competitors to react to such strategy by (i) lowering the price of single products, or (ii) offering similar or other bundles based on their portfolio. This could be particularly the case with respect to FTSE Russell's main competitors in index licensing (i.e., MSCI or S&P), who would have index portfolios similar to the combined entity's and could also provide broad bundles.[3388]

(b) The results of the market investigation confirm the limited effect of the Transaction. Notably the majority of informative end-customers and index providers participating in the market investigation submitted that the Transaction would either positively impact index licensing markets or not affect these markets at all.[3389] Similarly, the vast majority of informative index providers submitted that the Transaction would not have a negative impact on their activity.[3390]

3381 See https://www.amf-france.org/sites/default/files/2020-06/opportunities-and-risks-in-the-financialindex-markets_0.pdf (last accessed on 16 November 2020).

3382 RFI 46 reply, question 4.

3383 RIMES Position Paper, 12 August 2020, para. 2, Doc ID 5835.

3384 RIMES, Comments on SO, 23 October 2020, para. 6, Doc ID 7040.

3385 AMC Economics, Initial views on Case COMP/M.9564 – LSEG/Refinitiv Business, para. 15, Doc ID 6683.

3386 RIMES Position Paper, 12 August 2020, para. 38, Doc ID 5835.

3387 Regardless of the ability or the incentive of the combined entity to engage in such a strategy.

3388 This is in line with the CMA's conclusions regarding potential conglomerate effects arising from the acquisition of Frank Russell Company by LSEG (see CMA, *Anticipated acquisition by London Stock Exchange Group of Frank Russell Company*, ME/6455/14, paras. 96ff).

3389 Question 140, Questionnaire 9 to information services end-customers, Doc ID 6480 and question 33, Questionnaire 10 to index providers, Doc ID 6460.

3390 Question 36, Quesetionnaire 10 to index providers, Doc ID 6460.

4.5.40.3. Conclusion

(2763) In view of the above considerations and in light of the results of the market investigation and the evidence and information available to it, the Commission concludes that the Transaction would not significantly impede effective competition as a result of bundling of FTSE Russell and Refinitiv indices.

5. COMMITMENTS

5.1. Introduction

(2764) In order to address the competition concerns identified by the Commission, the Notifying Party submitted a first set of commitments on 5 November 2020 ("the Initial Commitments") pursuant to Article 8(2) of the Merger Regulation. The Commission launched a market test of the Initial Commitments on 5 November 2020 (the "Market Test").

(2765) Based on the results of the Market Test, the Commission gave the Notifying Party its feedback on the Initial Commitments on 16 November 2020. Overall, the Commission considered that the scope of the Initial Commitments was capable of eliminating the competition concerns entirely in all markets where concerns had been identified, subject to a number of improvements.

(2766) Following the feedback from the Commission, the Notifying Party submitted a final set of commitments on 26 November 2020 ("the Final Commitments").

(2767) The Final Commitments are attached as Annexes I-III[3391] and form an integral part of this Decision.

5.2. Analytical framework

(2768) Where the Commission considers that a concentration raises competition concerns the parties may seek to modify the concentration in order to resolve such competition concerns and thereby gain clearance of their merger.[3392]

(2769) Under the Merger Regulation, the Commission only has the power to accept commitments that are deemed capable of rendering the concentration compatible with the common market so that they will prevent a significant impediment to effective competition. The commitments must eliminate the competition concerns entirely and must be comprehensive and effective from all points of view.[3393] The commitments must also be proportionate to the competition concerns identified.[3394] Furthermore, the commitments must be capable of being implemented effectively within a short period of time as the conditions of competition on the market will not be maintained until the commitments have been fulfilled.[3395]

(2770) In assessing whether the proposed commitments will likely eliminate the competition concerns identified, the Commission considers all relevant factors including inter alia

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3391 The Final Commitments regarding the divestment of Borsa Italiana are attached as Annex I of this Decision, the Final Commitments regarding OTC IRDs are attached as Annex II of this Decision, and the Final Commitments regarding information services are attached as Annex III of this Decision.

3392 Commission notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (the "Remedies Notice"), OJ C 267, 22.10.2008, , p. 1, paragraph 5.

3393 Remedies Notice, paragraph 9.

3394 Merger Regulation, recital 30.

3395 Remedies Notice, paragraph 9.

the type, scale and scope of the proposed commitments, judged by reference to the structure and particular characteristics of the market in which the competition concerns arise, including the position of the parties and other participants on the market.[3396]

(2771) When assessing the commitments proposed by the merging parties, the Commission has the legal duty to ensure that such commitments are effective. In order for the commitments to remove the competition concerns entirely and be comprehensive and effective, there has to be an effective implementation and ability to monitor the commitments. Whereas divestitures once implemented do not require any further monitoring measures, other types of commitments require effective monitoring mechanisms in order to ensure that their effect is not reduced or even eliminated by the parties. Otherwise such commitments would have to be considered as mere declarations of intentions by the parties and would not amount to any binding obligations, as, due to the lack of effective monitoring mechanisms, any breach of them could not result in the revocation of the decision according to the provision of the Merger Regulation.[3397]

(2772) Where the parties submit remedies proposals that are so extensive and complex that it is not possible for the Commission to determine with the requisite degree of certainty, at the time of its decision, that they will be fully implemented and that they are likely to maintain effective competition in the market, an authorisation decision cannot be granted. The Commission may reject such remedies in particular on the grounds that the implementation of the remedies cannot be effectively monitored and that the lack of effective monitoring diminishes, or even eliminates, the effect of the commitments proposed.[3398]

(2773) It is against this background that the Commission analysed the proposed commitments in this case.

5.3. The Initial Commitments

5.3.1. Description of the Initial Commitments

(2774) The Initial Commitments consisted in a package of three sets of commitments: (i) one relating to the divestment of Borsa Italiana to Euronext (the "Borsa Italiana Divestment Commitments"), (ii) one relating to access commitments regarding information services (the "Initial Information Services Commitments"), and (iii) one aimed at providing fair, reasonable, and non-discriminatory access and treatment to Tradeweb's rival trading venues and middleware providers regarding the provision of clearing services for OTC IRDs (the "Initial OTC IRD Commitments").

5.3.1.1. The Borsa Italiana Divestment Commitments

(2775) In order to dispel the Commission's horizontal (unilateral) concerns in relation to the electronic provision of trading services for European government bonds, the Notifying Party proposed in the Borsa Italiana Divestment Commitments to divest (i) its 99.9% share in Borsa Italiana,[3399] (ii) BIt Market Services and (iii) GATELab businesses (the "Divestment Business"), to Euronext.

3396 Remedies Notice, paragraph 12.

3397 Remedies Notice, paragraph 13.

3398 Remedies Notice, paragraph 14.

3399 Borsa Italiana includes (i) MTS, which owns trading venues for all bonds and fixed income instruments, and a number of smaller fixed income retail venues (MOT, ExtraMOT and EuroTLX), (ii) the Italian

(2776) More specifically, the Divestment Business included all assets and staff that contribute to the current operation of the Divestment Business, in particular:

(a) all tangible and intangible assets (including intellectual property rights);

(b) all licences, permits and authorisations issued by any governmental organisation for the benefit of the Divestment Business;

(c) all contracts, leases, commitments and customer orders of the Divestment Business; all customer, credit and other records of the Divestment Business; and

(d) all staff currently employed by or wholly or mainly assigned to the Divestment Business, including staff seconded to the Divestment Business and shared personnel.

(2777) This proposed divestment of Borsa Italiana entirely removes the overlap between the Parties' activities in EGB trading.

(2778) Pursuant to the Borsa Italiana Commitments, LSEG commits to divest the Divestment Business to a suitable purchaser, which must hence fulfil a number of criteria defined in the Borsa Italian Commitments (the Purchaser Criteria)[3400] to be approved by the Commission. In line with the Commission's standard practice, the Borsa Italiana Commitments provide that LSEG shall submit a reasoned proposal to the Commission and the Monitoring Trustee and demonstrate that the purchaser fulfils the Purchaser Criteria and that the Divestment Business is being sold in a manner consistent with the Commission's Decision and the Commitments.

(2779) For the sake of completeness, the Commission further notes that prior to the submission of the Initial Commitments, namely on 9 October 2020, LSEG and Euronext had signed a definitive and binding sale and purchase agreement. Having identified Euronext as a potential purchaser, the Commission requested that respondents to the market test state their views as to Euronext's suitability as a potential purchaser of the Divestment Business.

5.3.1.2. The Initial Information Services Commitments

(2780) In order to dispel the Commission's vertical concerns in relation to the provision of LSE venue data and FTSE Russell UK Equities index data (upstream) and CRTDs and desktop services (downstream), and in relation to FX benchmarks (upstream)

Stock Exchange, (iii) Elite, an international business development and capital raising platform, (iv) Italian Derivatives Market, a derivatives trading venue, (v) MTS Repo, a D2D repo trading venue, (v) Borsa Italiana Market Data and MTS Data services, real-time market data services that license venue data to a number of third party data vendors, (vi) CC&G, a leading central counterparty and provider of risk management services, (vii) Monte Titoli, the Italian-based Central Securities Depository, (viii) Bit Market Services S.p.A., a computer software and information services company, (ix) GATElab S r.l., a technology provider for pre-trade, trading and post-trade operations.

3400 Specifically, paragraph 12 of the Borsa Italiana Commitments stipulates that "*(a) The Purchaser shall be independent of and unconnected to the Parties and their Affiliated Undertakings (this being assessed having regard to the situation following the divestiture). (b) The Purchaser shall have the financial resources, proven expertise and incentive to maintain and develop the Divestment Business as a viable and active competitive force in competition with the Parties and other competitors; (c) The acquisition of the Divestment Business by the Purchaser must neither be likely to create, in light of the information available to the Commission, prima facie competition concerns nor give rise to a risk that the implementation of the Commitments will be delayed. In particular, the Purchaser must reasonably be expected to obtain all necessary approvals from the relevant regulatory authorities for the acquisition of the Divestment Business.*"

and index licensing (downstream), the Notifying Party initially committed to provide access to all relevant existing and future upstream products to all existing and future downstream competitors for 10 years. Each of the Initial Information Services Commitments is described in more detail in Sections A-E below.

A. Initial Commitments regarding LSE real-time venue data products

(2781) *First*, the Notifying Party initially committed to make LSE real-time venue data available to Third Party Data Vendors[3401] that currently access or in the future make a request to access LSE real-time venue data pursuant to the Real-Time Market Data Agreement. Third Party Data Vendors are existing and future providers of CRTDs and/or desktop services, other than Refinitiv.[3402] This commitment included an undertaking to ensure that the pricing terms that are applied to LSE real-time venue data in respect of either Third Party Data Vendors or End Customers shall not be changed in such a way as to constitute a *De Facto* Failure to supply LSE real-time venue available to Third Party Data Vendors that currently access or in the future make a request to access these data.

(2782) *De Facto* Failure was defined as an excessive change in pricing terms which amounts to a failure by the Combined Entity to supply LSE real-time venue data to Third Party Data Vendors.[3403] In determining whether there has been an excessive change in pricing terms such as to amount to such a failure to supply, all relevant factors should be taken into account, including (to the extent relevant):

(a) the price (or change in price) offered by the Notifying Party to Third Party Data Vendors or End Customers (as the case may be) immediately prior to the Transaction (taking into account applicable measures of inflation since the Transaction); and/or

(b) the price (or change in price) offered by the Combined Entity to other Third Party Data Vendors or End Customers (as the case may be), at the relevant time; and/or

(c) the prices of comparable offerings by other providers in a comparable situation with respect to comparable customers at the relevant time, to the extent such comparators exist; having regard, in particular, to the quality and commercial proposition – in isolation or in combination with other products and services – and customer usage of such offerings.

(2783) *Second*, the Notifying Party provided commitments regarding the availability of its technology required for access to LSE real-time venue data. The Notifying Party committed not to degrade the quality of (i) real-time LSE venue data generated from LSEG's matching engine; (ii) the Data Dissemination Infrastructure; or (iii) the Connectivity Products, in any way that could impact negatively the quality of the real-time LSE venue data offered to Third Party Data Vendors compared to the

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3401 Capitalised terms in Section 5 have the meaning provided in the Final Commitments unless (i) they are specifically defined in the text of the decision or (ii) their definition in the Initial and Final Commitments is discussed as part of the Commission's assessment.

3402 This definition remained unchanged in the Final Commitments.

3403 Regarding a *de facto* failure to supply upstream inputs other than LSE real-time venue data, see the Commitments summarised in Sections B and C below.

quality provided by LSEG to Refinitiv.[3404] In more detail, the Notifying Party committed to the following:

(a) *LSE Matching Engine*. The Notifying Party committed not to degrade the quality of the LSE real-time venue data generated from the LSE Matching Engine in any way that would negatively impact the quality (including latency) of the data made available to Third Party Data Vendors compared to the quality provided to Refinitiv. The Notifying Party committed to make available to Third Party Data Vendors any alternative it develops to the LSE Matching Engine. The Notifying Party also committed that it would not develop or implement such an alternative in a way that would impact the quality of LSE real-time venue data compared to the quality offered to Refinitiv. Finally, the Notifying Party committed that any notification of a change/update regarding LSE venue data generated from the LSE Matching Engine would be made to Third Party Data Vendors at the same time as to Refinitiv.

(b) *Data Dissemination Infrastructure*. The Notifying Party committed not to degrade the Data Dissemination Infrastructure in any way that would negatively impact the quality (including latency) of the data made available to Third Party Data Vendors compared to the quality provided to Refinitiv. The Notifying Party committed to make available to Third Party Data Vendors any alternative it develops to the Data Dissemination Infrastructure (today, the Group Ticker Plant). The Notifying Party also committed that it would not develop or implement such an alternative in a way that would impact the quality of LSE real-time venue data compared to the quality offered to Refinitiv. Finally, the Notifying Party committed that any notification of a change/update regarding the Data Dissemination Infrastructure would be made to Third Party Data Vendors at the same time as to Refinitiv.

(c) *Connectivity Products*. The Notifying Party commited not to degrade Connectivity Products in any way that would negatively impact the quality of the data made available to Third Party Data Vendors compared to the quality provided to Refinitiv (when using the same Connectivity Product). The Notifying Party committed to make available to Third Party Data Vendors any alternative it develops to the Connectivity Products. The Notifying Party also committed that it would not develop or implement such an alternative in a way that would impact the quality of LSE real-time venue data compared to the quality offered to Refinitiv (when using the same Connectivity Product). The Notifying Party committed that any notification of a change/update regarding Connectivity Products would be made to Third Party Data Vendors at the same time as to Refinitiv (provided the Third Party Data Vendor and Refinitiv use the same Connectivity Product). Finally, the Notifying Party committed to give to Third Party Data Vendor applications for Connectivity Products the same level of priority as offered to Refinitiv.

B. Initial Commitments regarding the FTSE Russell UK Equity Indices

(2784) *First*, LSEG committed to make FTSE Russell UK Equity Indices available to Third Party Data Vendors that currently access or in the future make a request to access FTSE Russell UK Equity Indices pursuant to the FTSE Russell Index Licensing Agreement. The FTSE Russell UK Equity Indices concerned by the Initial

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[3404] Both in the Initial and Final Commitments, the Notifying Party refers to Refinitiv as "the Relevant Business".

Commitments are those provided in a list[3405] supplied by the Notifying Party in the format(s) available via Third Party Data Vendors Effective Date or any successor products that follow substantially the same methodology for the weighting and the selection of the components as one of the listed indices, in each case other than indices that have been prepared or tailored for a particular customer.

(2785) The Initial Commitments included an undertaking to ensure that the pricing terms that are applied to FTSE Russell UK Equity Indices in respect of either Third Party Data Vendors or End Customers shall not be changed in such a way as to constitute a De Facto Failure to make FTSE Russell UK Equity Indices available to Third Party Data Vendors that currently access or in the future make a request to access FTSE Russell UK Equity Indices.[3406]

(2786) *Second*, the Notifying Party committed to ensure that it will not technically degrade its infrastructure to disadvantage Third Party Data Vendors, by committing not to degrade the quality of FTSE Russell UK Equity Indices made available via the applicable data delivery infrastructure, and by committing that new or upgraded data delivery systems will be made available to Third Party Data Vendors. Concerning this commitment, the same considerations applicable to the LSE venue data commitment in recital (2848) above apply for FTSE Russell UK Equities Indices *mutatis mutandis*.

C. Initial Commitments regarding LSEG Customer Information

(2787) To address the Commission's concern regarding other non-coordinated effects to the detriment of competitors in CRTDs and desktop services, the Notifying Party committed to maintaining an information barrier between the personnel within the combined entity with access to Customer Information obtained through licensing arrangements of LSEG Venue Data and LSEG Indices[3407], and Refinitiv, to ensure that there is no exchange of Customer Information that could negatively impact Third Party Data Vendors. To implement this, LSEG shall put in place the measures listed below in order to prevent the exchange of Customer Information:

3405 The list of UK Equities Indices identified by the Notifying Party is as follows: FTSE 100 100% Hedged to EUR Index, FTSE 100 Capped 10% Index, FTSE 100 Capped 5% Index, FTSE 100 Declared Dividend Index, FTSE 100 ex Investment Trusts Index, FTSE 100 Index, FTSE 100 Mini Index, FTSE 100 Net Tax Index, FTSE 100 USD (WM 16:00 GMT) Index, FTSE 100 USD Mini Index, FTSE 250 Declared Index, FTSE 250 ex Inv Co Index, FTSE 250 ex Investment Trusts, FTSE 250 Index, FTSE 250 Net Tax Index, FTSE 350 Capped 5% Index, FTSE 350 ex Investment Trusts Index, FTSE 350 ex Investment Trusts Net Tax Index, FTSE 350 High Yield ex Inv Trusts Index, FTSE 350 Higher Yield Index, FTSE 350 Index, FTSE 350 Low Yield ex Inv Trusts Index, FTSE 350 Lower Yield Index, FTSE 350 Net Tax Index, FTSE AIM All-Share Index, FTSE All-Share 100% Hedged to EUR Index, FTSE All-Share 100% Hedged to EUR Net Tax Index, FTSE All-Share Capped 10% Index, FTSE All-Share Capped 5% Index, FTSE AllShare Declared Index, FTSE All-Share ex Inv Co Index, FTSE All-Share ex Investment Trusts 5% Capped Index, FTSE All-Share Index, FTSE All-Share Net Tax Index, FTSE All-Small ex Inv Co Index, FTSE All-Small Index, FTSE Fledgling ex Inv Co Index, FTSE Fledgling Index, FTSE SmallCap ex Inv Co Index, FTSE SmallCap Index, NON FINANCIALS Index, FTSE 100 Equally Weighted Index, FTSE 100 Equally Weighted Net Tax Index, FTSE 100 Semi Annual Equally Weighted Index, FTSE 100 Semi Annual Equally Weighted Net Tax Index, FTSE 250 ex Investment Trusts Equally Weighted Index, FTSE 350 ex Investment Trusts Equally Weighted Index, FTSE UK Dividend + Index, FTSE UK Dividend + Net Tax Index, FTSE 100 Dividend Index RDSA Withholding ,FTSE 100 Total Return Declared Dividend Index ,FTSE AIM 100 Index, FTSE AIM All-Share Index, FTSE AIM UK 50 Index, FTSE UK 30 Yield Weighted Index, FTSE UK 30 Yield Weighted Net Tax Index.

3406 The definition of a *de facto* failure and how it is measured is provided in recital (2782) above.

3407 Customer Information obtained through licensing arrangements of LSEG Venue Data and LSEG Indices is referred to as "Restricted Customer Information" in the Final Commitments.

(a) personnel with access to Customer Information shall sign non-disclosure agreements, which shall be submitted to the Monitoring Trustee within 10 working days of the adoption of this Decision;

(b) personnel with access to Restricted Customer Information shall receive relevant information and training regarding the importance of the information barrier;

(c) Customer Information shall be separately stored on an IT workspace or network which prevents the accessing of Restricted Customer Information by personnel of Refinitiv in breach of the commitment.

D. Initial Commitments regarding WM/R FX Benchmarks

(2788) *First*, LSEG committed to ensure that the combined entity will make available to all existing and future customers that license WM/R FX benchmarks for index licensing purposes (and which are index licensing rivals of the Combined Entity) the WM/R FX benchmarks as set out in the WM/Reuters FX Benchmarks methodology guide as published on Refinitiv's website and updated from time to time, their successor products and WM/R FX benchmarks / rates of a similar nature offered by the combined entity in the future.

(2789) *Second*, the Initial Commitments included an undertaking to ensure that the pricing terms that are applied to WM/R FX Benchmarks shall not change in such a way as to constitute a *De Facto*Failure[3408] to make WM/R FX Benchmarks available to WM/R Customers for index licensing purposes.

5.3.1.3. The Initial OTC IRD Commitments

(2790) In relation to the vertical, customer foreclosure, concerns in OTC IRD (regarding, upstream, the provision of OTC IRD trading services and, downstream, the provision of OTC IRD clearing services), by virtue of the Initial Commitments, the Notifying Party committed that SwapClear refrain from engaging in any of the foreclosure strategies identified in the SO for 10 years.

(2791) *Firstly*, LCH SwapClear shall continue to comply with all regulatory requirements set out in EMIR (as may be amended from time to time) to the extent applicable to the non-discriminatory and transparent Clearing of OTC IRDs in the EEA, including the Article 7 EMIR provisions, which would otherwise apply to EU-recognised CCPs only. The Notifying Party committed that LCH SwapClear shall continue to comply with these regulatory requirements, even after the end of the Brexit Transitional period, and irrespective of the nature and scope of any future trade agreement concluded between the European Union and the United Kingdom (or the absence thereof). The Notifying Party further committed to apply all these regulatory requirements set out in EMIR to the extent applicable to the non-discriminatory and transparent Clearing of OTC IRDs in the EEA to Middleware Providers, in the same manner as they are applicable to Trading Venues.

(2792) *Secondly* LCH SwapClear committed to strengthen and enhance its existing open access model and non-discriminatory business practices in relation to Trading Venues, and Middleware Providers in relation to (i) prices, (ii) service levels, technical specifications and operational standards (including interoperability requirements), and (iii) the introduction of new products.

[3408] The definition of a *de facto* failure and how it is measured is provided in paragraph (2782) above.

(2793) First, in relation to prices, LCH SwapClear committed to (i) ensure that all current and future Clearing Fees will be set in a transparent manner and will be non-discriminatory between Trading Venues and Middleware Providers; and to (ii) not coordinate its pricing with Tradeweb in a way that could result in indirect price discrimination between Trading Venues and Middleware Providers or otherwise based on a trade's route to Clearing.

(2794) Second, LSEG committed that LCH SwapClear would guarantee non-discrimination in respect of service levels, technical specifications and operational standards (including interoperability requirements) that must be met by Trading Venues and Middleware Providers to maintain connectivity to LCH SwapClear.

(2795) LCH SwapClear further committed to guarantee that the quality and/or service levels of its OTC IRD clearing services and related workflow functionality is provided on a non-discriminatory basis, i.e. irrespective of the Trading Venue or Middleware Provider from which that customer's trade has originated. This includes (but is not limited to) (i) accepting all trades for clearing as quickly as technologically practicable; and (ii) making available new workflow functionality to all Trading Venues and Middleware Providers on a non-discriminatory basis.

(2796) In order to ensure that all connected Trading Venues and Middleware Providers have an equal opportunity to adapt to any new processes or technical/operational requirements, LCH SwapClear committed under the Initial OTC IRD Commitments to serve all connected Trading Venues and Middleware Providers notice of any changes to technical or operational requirements at least one month before such changes take effect (unless otherwise approved by the Monitoring Trustee and then with as much advance notice as practicable), with notice to all connected Trading Venues and Middleware Providers being served on the same day.

(2797) In addition, LCH SwapClear committed to offer all existing and future key workflow functionalities (to ensure consistent service levels) (i) on non-discriminatory commercial terms; (ii) subject to non-discriminatory technical and operational requirements; and (iii) no later than they are made available to Tradeweb.

(2798) Third, in relation to innovation, LSEG committed to cooperate on a non-discriminatory basis with Trading Venues that want to introduce new OTC IRD products for Clearing, including in the three following ways, unless this is prevented by the existence of IP, confidentiality or other rights and, having used reasonable efforts to obtain consent from the holder of such rights, consent to disclose this information is refused:

(a) guaranteeing that LCH SwapClear will cooperate on a non-discriminatory basis with all Trading Venues and Middleware Providers for the launch of new or enhanced products. This includes (but is not limited to): (i) offering support with technical queries from Trading Venues and Middleware Providers on a non-discriminatory basis; and (ii) ensuring specifications for new products (including margin requirements) are set in a non-discriminatory (i.e. Trading Venue and Middleware Provider-agnostic) manner;

(b) updating all connected Trading Venues and Middleware Providers in respect of planned innovations and/or new product launches via confidential quarterly updates (to the extent there are any such innovations or launches), provided to all parties at the same time; and

(c) guaranteeing that all new products adopted by LCH SwapClear will be made available to all connected OTC IRD Trading Venues and Middleware Providers (i) on non-discriminatory commercial terms; (ii) subject to non-

discriminatory technical and operational requirements; and (iii) no later than they are made available to Tradeweb.

(2799) In addition, LSEG committed to establish appropriate ring-fencing and firewalls to ensure that Tradeweb does not obtain from LCH SwapClear any OTC IRD Clearing Services information about current and future (i) prices, (ii) technical, operational or service quality requirements, or (iii) innovation or new product launches, which other Trading Venues and Middleware Providers would not otherwise obtain at the same time. If Tradeweb obtains such information, it will be communicated to other Trading Venues and Middleware Providers simultaneously with the same level of cooperation.

(2800) Lastly, under the Initial Commitments, LSEG committed to comply with the Initial OTC IRD Commitments for a period of 10 years from the date of the Commission Decision approving the Transaction under the Merger Regulation.

5.3.1.4. Monitoring Trustee, arbitration and duration of the Initial Commitments

(2801) Each of the sub-sets of the Initial Commitments (namely (i) the Borsa Italiana Divestment Commitments, (ii) the Initial Information Services Commitments, and (iii) the Initial OTC IRD Commitments) respectively provided for the appointment of a Monitoring Trustee to oversee the implementation of, and to ensure the full compliance of the combined entity with, respectively the Borsa Italiana Divestment Commitments, the Initial Information Services Commitments, and the Initial OTC IRD Commitments. For the avoidance of doubt, the Initial Commitments provided for three separate appointment processes for each of the Borsa Italiana Divestment Commitments, the Initial Information Services Commitments, and the Initial OTC IRD Commitments.

(2802) The relevant provisions of the Initial Commitments pertaining to the Monitoring Trustee appointment and role do not depart from the Commission's model text for commitments, which serve as best practice guidelines for notifying parties submitting commitments under the Merger Regulation, and with precedents from past merger cases.

(2803) In addition, the Initial Information Services Commitments and the Initial OTC IRD Commitments each respectively provided that relevant third parties[3409] that have reason to believe that LSEG has failed to comply with the Initial Information Services Commitments or the Initial OTC IRD Commitments could have recourse to a fast-track dispute resolution procedure, which main features and modalities are described hereunder. [3410] For the avoidance of doubt, the Initial Commitments provided for two fully separate fast-track dispute resolution procedures for, on the one hand, the Initial OTC IRD Commitments, and for, on the other hand, the Initial information services Commitments. However, as (i) the fast-track dispute resolution procedure under the Initial OTC IRD Commitments and of (ii) the fast-track dispute resolution procedure under the Initial Information Services Commitments present the same features and modalities, these are described hereunder jointly. Complainant who wishes to avail itself of the fast-track dispute resolution procedure shall first send a written request to LSEG, and that the Complainant and LSEG shall use best

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3409 Namely, (i) Third Party Data Vendors and WM/R Customers regarding the Initial Information Services Commitments and (ii) Trading Venues and Middleware Providers regarding the Initial OTC IRD Commitments.

3410 For the avoidance of doubts, the fast-track dispute resolution procedure was an additional option, and not an obligation, to the benefit of the relevant third parties.

efforts to settle the disputes within a reasonable period of time, not exceeding 25 working days after receipt of a request. In this case, the Monitoring Trustee shall present its own proposal for resolving the dispute within 15 working days,[3411] and if the Complainant and LSEG fail to resolve their differences of opinion, the Complainant may initiate an arbitration procedure before an Arbitral Tribunal,[3412] which shall, as a rule, render its final award within six months. While the Initial Commitments provided that the Arbitral Tribunal's final award shall be binding on the Complainant and LSEG, they also clarified for the avoidance of doubt that nothing in the arbitration procedure shall affect the powers of the Commission's power to take decisions in relation to the Commitments in accordance with its powers under the Merger Regulation.

5.3.2. Results of the Market Test of the Initial Commitments

5.3.2.1. The Borsa Italiana Divestment Commitments

(2804) First, the vast majority of market participants that responded to the Market Test believe that the proposed sale of the Divestment Business to Euronext under the Initial Borsa Italiana Divestment Commitmentsresolves the horizontal competitive concerns raised by the Transaction with respect to the provision of electronic trading services for EGBs. More specifically, 83% of trading venues, 57% of clearing houses, and 48% of customers that responded to the Market Test consider that the Divestment of Borsa Italiana to Euronext will resolve the competitive concerns identified by the Commission in this market.[3413] Out of the 61 customers, 6 clearing houses, and 8 trading venues who responded, only one customer considers that the proposed divestment of Borsa Italiana is insufficient to resolve these competitive concerns.[3414] By way of example, MarketAxess, a trading venue competitor, indicates "*the concerns we had raised previously have been addressed by the divestment of MTS from LSE*" and BME, another trading venue competitor, explains: "*we believe that competitive concerns are fully addressed by the sale of the assets*".[3415] In the same vein, Barclays Bank PLC, a customer, indicates that "*It appears that the sale of the Divestment Business will remove the overlap between*

3411 Or within 10 working days under the Initial OTC IRD Commitments when LSEG's decision subject to the complain was made to ensure LCH Ltd's prudent risk management, in which case the Monitoring Trustee shall request a report from LCH's Risk Committee.

3412 The Initial Information Services Commitments and the Initial OTC IRD Commitments however provided that the Monitoring Trustee would also have the ability to declare a complaint vexatious, frivolous or insufficiently substantiated.

3413 Question 2 Questionnaire R1 to trading and clearing customers, Doc ID 8364; Question 2, Questionnaire R2 to trading competitors, Doc ID 8365; Question 2 of Questionnaire R3 to clearing competitors, Doc ID 8366.

3414 Ibid. The Commission notes that the reasons put forward by this customer, namely DZ Bank, to justify its answer do not corroborate its statement and seems to refer to potential out-sourcing, which are not contemplated in the Borsa Italiana Divestment Commitments. DZ Bank indeed explains its view as follows: "*Using electronic trading services relies on a number of different activities. By outsourcing specific parts to third parties, may lead to a dominating role by an in-sourcing company. Therefore it is important to maintain competition along the different service levels by companies independent of LSEG and Euronext"* (see Question 2.1, Questionnaire R1 to trading and clearing customers, response of DZ Bank, Doc ID 8364). For the sake of completeness, one trading venue, representing 17% of the respondents, 43% of the clearing houses, and 48% of customers answered "I don't know".

3415 Question 2.1 of Questionnaire R2 to trading competitors, responses of Market Axess Holdings and BME, Doc ID 8366.

LSEG and Refinitiv's EGB electronic trading services businesses, and therefore address the competitive concerns identified by the Commission". [3416]

(2805) Second, the vast majority of market participants that responded to the Market Test believe that the proposed sale of the Divestment Business to Euronext will ensure the viability and competitiveness of the Divestment Business. More specifically, 83% of trading venues, 57% of clearing houses, and 48% of customers that responded to the Market Test consider that the Divestment of Borsa Italiana to Euronext will not alter the viability and competitiveness of the Divestment Business.[3417] As above, out of the 61 customers, 6 clearing houses, and 8 trading venues who responded, only one customer considers that the proposed divestment of Borsa Italiana does not ensure the viability and competitiveness of the Divestment Business.[3418] By way of example, TP ICAP, a trading venue competitor, indicates that "*Maintaining the integrity of the divested assets and management structure provide sufficient guarantees of viability and competitiveness even in the new acquiring structure*"[3419] and BME, another trading competitor mentions that the purchaser "*will acquir[e] all EGB business of LSE (MTS, Monte Titoli, CC&G) and together they can continue as a viable competitor"*.[3420] With regard to customers, for instance, BANCA SELLA HOLDING SPA mentions that "*The perimeter subject to potential sale includes the assets necessary to guarantee competition between trading venues*".[3421]

(2806) Third, the respondents to the Market Test consider unanimously that Euronext is a suitable purchaser for the Divestment Business, which will be able to successfully maintain and develop the Divestment Business as a viable and active competitive force in competition with Tradeweb, Bloomberg, and other competitors.[3422] More specifically, none of the 61 customers, 6 clearing houses, and 8 trading venues who responded consider that Euronext would not be a suitable purchaser, or would not be able to successfully maintain and develop the Divestment Business as a viable and active competitive force in competition with Tradeweb, Bloomberg, and other competitors.[3423] By way of example, TP ICAP, a trading venue competitor, explains that Euronext is a suitable purchaser because "*Not only is Euronext one of the largest exchange conglomerates in the world but it was also the previous owner of the MTS*

3416 Question 2.1 of Questionnaire R1 to trading customer, responses of Barclays Bank PL, Doc ID 8364.

3417 Question 2 Questionnaire R1 to trading and clearing customers, Doc ID 8364; Question 2, Questionnaire R2 to trading competitors, Doc ID 8365; Question 2 of Questionnaire R3 to clearing competitors, Doc ID 8366.

3418 Ibid. The Commission notes, for the same reasons as those explained in footnote 3414, that the reasons put forward by this customer to justify its answer do not corroborate its statement and seems to refer to potential out-sourcing, which are not contemplated in the Borsa Italiana Divestment Commitments. DZ Bank indeed explains its view as follows: "*Using electronic trading services relies on a number of different activities. By outsourcing specific parts to third parties, may lead to a dominating role by an in-sourcing company. Therefore it is important to maintain competition along the different service levels by companies independent of LSEG and Euronext"* (see Question 2.1, Questionnaire R1 to trading and clearing customers, response of DZ Bank, Doc ID 8364). For the sake of completeness, one trading venue, representing 17% of the respondents, 43% of the clearing houses, and 48% of customers answered "I don't know".

3419 Question 2.1 of Questionnaire R2 to trading competitors, response of TP ICAP, Doc ID 8366.

3420 Question 2.1 of Questionnaire R3 to clearing competitors, response of BME, Doc ID 8366.

3421 Question 2.1 of Questionnaire R1 to trading and clearing customers, response of BANCA SELLA HOLDING SPA, Doc ID 8364.

3422 Question 3 Questionnaire R1 to trading and clearing customers, Doc ID 8364; Question 3, Questionnaire R2 to trading competitors, Doc ID 8365; Question 3 of Questionnaire R3 to clearing competitors, Doc ID 8366.

3423 Ibid.

group. The continuity of the management structure, the backing of the government-owned Italian CDP and the experience built over 25 years in the EGB market offer a degree of certainty for the future of the divested assets".[3424] Similarly, with regard to customers, Aviva Group plc for instance states: "*Given Euronext's current market share and history, they would appear to be a suitable purchaser for the divestment business and we have no concerns*",[3425] and Citadel Group adds: "*As one of the leading EU operators of exchanges and other trading venues across numerous asset classes, we believe that Euronext is a suitable purchaser for the Divestment Business, including Borsa Italiana and MTS. Euronext has a credible history of being a viable and competitive force as a trading venue operator*".[3426]

(2807) Fourth, the respondents to the Market Test unanimously considered that there are no considerable obstacles for the transfer of the Divestment Business to Euronext, which could call into question whether LSEG will manage to transfer the Divestment Business to Euronext (e.g. regulatory approvals).[3427]

(2808) Fifth and last, the results of the Commission's Market Test did not evidence that amendments to the text of the Initial Commitments were required regarding the Divestment of the Borsa Italiana to Euronext.

5.3.2.2. The Initial Information Services Commitments

(2809) The results of the Market Test on the Initial Information Services Commitments were overall positive, particularly among end-customer respondents.[3428] At the same time, market participants offered a number of suggestions to improve the viability and effectiveness of the Initial Commitments. The market feedback for each of the Commitments is summarised in sections A-E below.

A. Initial Commitments regarding LSE real-time venue data

(2810) In general, end-customers were satisfied with the scope and suitability of the Initial Commitments. 74% of informative end-customer respondents indicated that the Initial Commitments are suitable to prevent the combined entity from limiting the distribution of LSE real-time venue data among Third Party Data Vendors,[3429] while 61% of informative end-customer respondents also submitted that the Initial Commitments are suitable to prevent a *De Facto* Failure to supply through excessive pricing.[3430] 64% of informative end-customer respondents considered that the Initial Commitments are suitable to address all concerns raised by the Commission in the SO.[3431]

(2811) On the other hand, only a minority of data vendors expressed the view that the Initial Commitments are sufficiently clear and that they can address the competition concerns of the Commission. 63.5% of informative data vendor respondents indicated that the Initial Commitments are not suitable to prevent the combined

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3424 Question 2.1 of Questionnaire R2 to trading competitors, response of TP ICAP, Doc ID 8366.

3425 Question 2.1 of Questionnaire R1 to trading competitors, response of Aviva group plc, Doc ID 8364.

3426 Question 2.1 of Questionnaire R1 to trading and clearing customers, response of Citadel Group, Doc ID 8364.

3427 Question 4 Questionnaire R1 to trading and clearing customers, Doc ID 8364; Question 4, Questionnaire R2 to trading competitors, Doc ID 8365; Question 4 of Questionnaire R3 to clearing competitors, Doc ID 8366.

3428 Questionnaire R4 to information services end-customers, Doc ID 8367.

3429 Question 2, Questionnaire R4 to information services end-customers, Doc ID 8367.

3430 Question 3, Questionnaire R4 to information services end-customers, Doc ID 8367.

3431 Question 5, Questionnaire R4 to information services end-customers, Doc ID 8367.

entity from engaging in total foreclosure in the markets for CRTDs and desktop services by restricting access to LSE real-time venue data.[3432] 57% of informative data vendor respondents considered that the Initial Commitments would not prevent price increases of LSE real-time venue data, amounting to a *De Facto* Failure to supply these data to Third Party Data Vendors.[3433] 80% of informative data vendor respondents added that the Initial Commitments do not address all concerns raised by the Commission in the SO.[3434]

(2812) Market participants including data vendors and end-customers identified the following shortcomings regarding the Initial Information Services Commitments.

(2813) *First*, several respondents highlighted that the Initial Commitments should be expanded to cover non-real time LSE venue data. As data vendor Bloomberg explained, "[e]*xcluding non-real time data from the scope of the remedy fails to address the input foreclosure concerns identified in the SO. This is in particular because, as recognised in the SO, desktop users rely on non-real time data in addition to real time data*."[3435] End-customer respondents (e.g., B. Metzler and BNP Paribas) confirmed that non-real time LSE venue data should be included in the scope of the Commitments.[3436] A small number of respondents called for extending the scope of the Commitments to include venue data from LSEG venues other than LSE (e.g., Turquoise or CurveGlobal).[3437] Market Test respondents also submitted that access to LSE venue data should be guaranteed not only to CRTD and desktop service providers but also to the suppliers of other packaged solutions (e.g., non-real time datafeeds).[3438]

(2814) *Second*, a large number of respondents also questioned the suitability of the definition of the *"De Facto Failure*" clause in the Initial Commitments regarding LSE real-time venue data pricing. Market respondents submitted that this clause was too vague and difficult to enforce. For example, end-customer ABN Amro submitted: "[t]*he term "de facto'' is not completely clear to us. What is an excessive change of pricing? We need it to be a bit more specific and measurable. For example, a percentual change in price*".[3439] Data vendor Bloomberg proposed alternative standards to measure whether an excessive change has been charged to Third Party Data Vendors, such as FRAND pricing terms or a price cap[3440] or the RCB standard set out in Article 13 MiFIR.[3441] End-customer respondents (e.g., Virtu ITG Europe Limited, Schroders) also referred to the RCB standard and ESMA's guidance in this

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3432 Question 2, Questionnaire R5 to data vendors, Doc ID 8368.
3433 Question 3, Questionnaire R5 to data vendors, Doc ID 8368.
3434 Question 5, Questionnaire R5 to data vendors, Doc ID 8368.
3435 Bloomberg's response to Question 1, Questionnaire R5 to data vendors, Doc ID 8368.
3436 B. Metzler's and BNP Paribas' responses to Question 2.1, Questionnaire R5 to end-customers, Doc ID 8367.
3437 Bloomberg's response to Question 1, Questionnaire R5 to data vendors, Doc ID 8368 and Societe Generale's and Credit Agricole's responses to Question 2, Questionnaire R4 to information services end-customers, Doc ID 8367.
3438 Bloomberg's response to Question 1, Questionnaire R5 to data vendors, Doc ID 8368 and Societe Generale's and Credit Agricole's responses to Question 2, Questionnaire R4 to information services end-customers, Doc ID 8367.
3439 ABN Amro's response to Question 1, Questionnaire R4 to information services end-customers, Doc ID 8367.
3440 Namely, fair, reasonable, and non-discriminatory terms.
3441 Bloomberg's response to Question 2.1, Questionnaire R5 to data vendors, Doc ID 8368.

respect.[3442] Finally, data vendor FactSet suggested that *De Facto* Failure should not be limited to pricing terms and it should cover all licensing terms in the agreements concerning LSE venue data.[3443]

(2815) *Third*, market participants highlighted that the combined entity might be able to circumvent the Initial Commitments in some cases. Data vendor Bloomberg expressed concern that the combined entity could reclassify LSE venue data in new packages to avoid providing access to rival data vendors.[3444] Data vendor FactSet expected that the combined entity could limit the availability of LSE venue data only to some use cases.[3445]

(2816) *Fourth*, end-customer respondents submitted that the Initial Commitments (and in particular the clause on *De Facto* Failure) should protect not only data vendors but also end-customers.[3446] As Société Générale put it, "[i]*t must also be ensured that the clauses preventing the combined entity will not engage in a de facto refusal to supply the data (by imposing excessive prices or any kind of discriminatory practices) are also extended to protect End Customer... If End Customers are not protected by the Commitment, there is a risk that combined entity creates commercial models were Third Party distributors are not discriminated but were End Customer are, for instance with a pricing by band designed to be favorable to Refinitiv".*[3447] In light of this, some end-customers indicated that LSEG should commit to ensure price parity across end-customers regarding LSE venue data, regardless of whether the data is accessed through Refinitiv or through a Third Party Data Vendor.[3448]

(2817) *Fifth*, concerning partial technical foreclosure, the majority of informative respondents[3449] indicated that the Initial Commitments are suitable to address the Commission's concerns.[3450] Data vendor McKay, however, submitted that the terms "*Connectivity Products*" and "*Data Dissemination Infrastructure*" should be defined more broadly and also that data vendors should be informed at the same time as Refinitiv of any data centre relocation that could affect the dissemination of LSE real-time venue data.[3451] McKay also raised the concern that LSEG could circumvent its commitments by maintaining the latency of the data delivered to the data vendor but ultimately degrading the latency of the data delivered to the end-customer.[3452] End-customer BNP Paribas added that "*LSE should commit to the same support/incident and resolution management for all* [data] *vendors including Refinitiv*".[3453]

3442 Virtu ITG Europe Ltd's and Schroder's response to Question 16, Questionnaire R4 to information services end-customers, Doc ID 8367.

3443 FactSet's response to Question 2.1, Questionnaire R5 to data vendors, Doc ID 8368.

3444 Bloomberg's response to Question 5.1.2, Questionnaire R5 to data vendors, Doc ID 8368.

3445 FactSet's response to Question 6.1, Questionnaire R5 to data vendors, Doc ID 8368.

3446 Questions 3 and 5.1.2, Questionnaire R4 to information services end-customers, Doc ID 8367.

3447 Societe Generale's response to Question 5.1.2, Questionnaire R4 to information services end-customers, Doc ID 8367.

3448 Questions 2, 3.1, and 5.1.1, Questionnaire R4 to information services end-customers, Doc ID 8367.

3449 Including 82% of informative end-customers and 57% of informative data vendors (Question 4, Questionnaire R4 to information services end-customers, Doc ID 8367, and Question 4, Questionnaire R5 to data vendors, Doc ID 8368).

3450 Question 4, Questionnaire R4 to information services end-customers, Doc ID 8367, and Question 4, Questionnaire R5 to data vendors, Doc ID 8368.

3451 McKay's responses to Questions 1.1, 3.1, and 4.1, Questionnaire R5 to data vendors, Doc ID 8368.

3452 McKay's responses to Question 4.1, Questionnaire R5 to data vendors, Doc ID 8368.

3453 BNP Paribas' response to Question 4.1, Questionnaire R4 to information services end-customers, Doc ID 8367.

B. Initial Commitments regarding the FTSE Russell UK Equity Indices

(2818) Most end-customers were satisfied with the scope and suitability of the Initial Commitments regarding the FTSE Russell UK Equity Indices. 75% of informative end-customer respondents indicated that the Initial Commitments are suitable to prevent the combined entity from limiting the distribution of FTSE Russell UK Equity Indices among Third Party Data Vendors,[3454] while 63% of informative end-customer respondents also expressed the view that the Initial Commitments are suitable to prevent a *De Facto* Failure through excessive pricing.[3455] 68% of informative end-customer respondents considered that the Initial Commitments are suitable to address all concerns raised by the Commission in the SO.[3456]

(2819) Additionally, a significant share of data vendors were supportive of the Initial Commitments. While 50% of informative data vendor respondents indicated that the Initial Commitments are suitable to prevent full foreclosure,[3457] 60% expressed the same view concerning a *De Facto* Failure.[3458] 50% of informative data vendor respondents indicated that the Initial Commitments address all concerns raised by the Commission in the SO.[3459]

(2820) Respondents to the Market Test generally, and in particular those who were less supportive of the Initial Commitments, expressed the view that some definitions should be clarified. In particular, it was indicated that the FTSE Russell licensing agreement should include the Agreements governing the FTSE real-time index values, as well as those governing the membership data and EoD indices. Moreover, the definition of FTSE Russell UK Equity Indices should not be limited to real-time and EoD indices, but should also include the membership constituent data, i.e. the transaction data from LSEG's venues as used by FTSE Russell for the creation of its indices.[3460]

(2821) In addition, a significant number of respondents questioned the suitability of the definition of the *De Facto* Failure clause in the Initial Commitments. The same comments covered in recital (2879)above in the context of venue data apply to the workability of this commitment regarding FTSE Russell UK Equities Indices.[3461]

(2822) Market participants highlighted that under certain circumstances the combined entity might be able to circumvent the Initial Commitments. End-customer Close Brothers Group indicated that the Initial Commitments were not specific enough and not measurable, and proposed linking them to existing legislation or common legal principles.[3462] Some data vendors suggested adding a good faith or anti-circumvention commitment to not engage in any conduct that would undermine the purpose of the Commitments. They also suggested that the combined entity should be transparent in its pricing practices, including discounts and other commercial incentives.[3463]

3454 Question 6, Questionnaire R4 to information services end-customers, Doc ID 8367.
3455 Question 7, Questionnaire R4 to information services end-customers, Doc ID 8367.
3456 Question 9, Questionnaire R4 to information services end-customers, Doc ID 8367.
3457 Question 6, Questionnaire R5 to data vendors, Doc ID 8368.
3458 Question 7, Questionnaire R5 to data vendors, Doc ID 8368.
3459 Question 9, Questionnaire R5 to data vendors, Doc ID 8368.
3460 Bloomberg's response to Question 1, Questionnaire R5 to data vendors, Doc ID 8368.
3461 Question 6, Questionnaire R4 to information services end-customers, Doc ID 8367, and Question 6, Questionnaire R5 to data vendors, Doc ID 8368.
3462 Question 9, Questionnaire R4 to information services end-customers, Doc ID 8367.
3463 Question 9.1.2., Questionnaire R5 to data vendors, Doc ID 8368.

(2823) Finally, concerning partial foreclosure, the majority of informative respondents indicated that the Initial Commitments are suitable to address the Commission's concerns regarding partial foreclosure through technical degradation, with 85% of informative end-customer respondents and 75% of informative data vendor respondents supporting this view.[3464]

C. Initial Commitments regarding LSEG Customer Information

(2824) A large majority (74%) of informative end-customer respondents considered that the Initial Commitments are sufficient to ensure that no Customer Information is passed to Refinitiv.[3465] From the data vendors' perspective, 50% of informative respondents indicated that the Initial Commitments are sufficient to ensure that no Customer information is passed to Refinitiv.[3466] Market investigation respondents had certain recommendations for clarifying or strengthening the Initial Commitments; for instance, they indicated that end-customers should be added to the definition of "complainant"; that monitoring of the commitments should be "*part of* [the combined entity's] *internal audit requirements*"; that "*the level of anonymization and aggregation guarantees that no reverse engineering or interpretation can be made"*; that "*there must be an express prohibition on the use of* [Customer Information] *in the context of sales and marketing efforts";* and that "*personnel of the Combined Entity with access to* [Customer Information] *may only use such information for the limited purpose of ensuring compliance by the Third Party Data Vendor and End Customers*".[3467]

D. Initial Commitments regarding WM/R FX Benchmarks

(2825) A majority (66%) of informative end-customer respondents considered the Initial Commitments sufficient to address all competition concerns concerning the link and in particular a large majority (70%) of informative end-customer respondents considered the Initial Commitments sufficiently clear to ensure that the combined entity will not engage in a *de facto refusal* to supply FX rates to index providers by imposing excessive prices.[3468] However, two thirds of informative index provider respondents considered the Initial Commitments insufficiently clear on the latter point, and therefore overall insufficient to address all competition concerns concerning the link.[3469] In particular, respondents questioned the suitability of the definition of the "*De Facto Failure*" clause in the Initial Commitments; index provider Solactive said it "*lacks clarity and detail*" and index provider IHS expressed that "*there are no comparable products to the WM/R FX Benchmarks*" and therefore it is not clear how this clause would be enforced.

E. Common considerations for the Initial Information Services Commitments

(2826) The majority of informative end-customer respondents (62%) and data vendors (62%) considered the duration of the Initial Commitments, namely 10 years, to be

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3464 Question 8, Questionnaire R4 to information services end-customers, Doc ID 8367, and Question 8, Questionnaire R5 to data vendors, Doc ID 8368.

3465 Question 10, Questionnaire R4 to information services end-customers, Doc ID 8367.

3466 Question 10, Questionnaire R5 to data vendors, Doc ID 8368.

3467 Question 10, Questionnaire R4 to information services end-customers, Doc ID 8367, Question 10, Questionnaire R5 to data vendors, Doc ID 8368.

3468 Questions 11 and 12, Questionnaire R4 to information services end-customers, Doc ID 8367.

3469 Questions 11 and 12, Questionnaire R6 to index providers, Doc ID 8369.

appropriate to remedy the competition concerns identified by the Commission.[3470] On the other hand, the majority of informative index provider respondents (63%) did not consider the duration to be appropriate; two index providers, Solactive and IHS, proposed that a "*market consultation*" should take place after the 10-year period; another, Morningstar, proposed a duration of 15 years; and another, MarketAxess, proposed an unspecified duration of "*as long as needed*".[3471]

(2827) With regard to the fast track dispute resolution mechanism, a large majority (79%) of informative end-customers (79%), data vendors (71%), and index providers (67%) considered the provisions adequate to ensure that Third Party Data Vendors and WM/R Customers can enforce the Initial Commitments effectively.[3472] Moreover, a large majority of informative end-customers (87%), data vendors (80%) and index providers (67%) considered the deadlines in the fast-track dispute resolution mechanism sufficient to ensure the effectiveness of the Initial Commitments and to be in line with market practice.[3473] One index provider specified that the combined entity should not be allowed suspend access to the critical input while the dispute resolution is ongoing.[3474]

5.3.2.3. The Initial OTC IRD Commitments

A. Suitability of the Initial OTC IRD Commitments to address the Commission's competition concerns

(2828) *First*, as regards the definitions (Section A) contained in the Initial OTC IRD Commitments, the feedback of the Market Test was positive overall. Only a very small minority of end-customers (7%) consider that some of the definitions contained in the Initial OTC IRD Commitments are not sufficiently clear or should be improved.[3475] However, a larger proportion of trading competitors (40%, representing two trading venues) consider that some of the definitions contained in the Initial OTC IRD Commitments are not sufficiently clear.[3476] Similarly, 50% of clearing competitors, representing four CCPs, are of the opinion that some of the definitions contained in the Initial OTC IRD Commitments are not sufficiently clear.[3477] More specifically, the Market Test therefore yielded the following improvement of the Initial OTC IRD Commitments.

(2829) Firstly, regarding the definition of "Clearing Fees", the Commission received several comments suggesting that the definition contained in the Initial Commitments should

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3470 Question 13, Questionnaire R4 to information services end-customers, Doc ID 8367, Question 13, Questionnaire R5 to data vendors, Doc ID 8368.

3471 Question 13, Questionnaire R6 to index providers, Doc ID 8369.

3472 Question 14, Questionnaire R4 to information services end-customers, Doc ID 8367, Question 14, Questionnaire R5 to data vendors, Doc ID 8368, Question 14, Questionnaire R6 to index providers, Doc ID 8369.

3473 Question 15, Questionnaire R4 to information services end-customers, Doc ID 8367, Question 15, Questionnaire R5 to data vendors, Doc ID 8368, Question 15, Questionnaire R6 to index providers, Doc ID 8369.

3474 Question 15, Questionnaire R4 to information services end-customers, Doc ID 8367, Question 15, Questionnaire R5 to data vendors, Doc ID 8368, Question 15, Questionnaire R6 to index providers, Doc ID 8369.

3475 Question 7, Questionnaire R1 to trading and clearing customers, Doc ID 8364.

3476 Question 7, Questionnaire R2 to trading competitors, Doc ID 8365.

3477 Question 7, Questionnaire R3 to clearing competitors, Doc ID 8366.

be broadened, in order to *"cover all fees payable by Trading Venues and/or Middleware Providers, e.g., access fees"*[3478]

(2830) Secondly, the Commission received a comment from Bloomberg, a competing trading venue, suggesting that the definition of "EMIR" should specify, for the sake of completeness, that it also covers any new legislation that could replace EMIR in the future.[3479]

(2831) Thirdly, Bloomberg suggests that it should be specified for the sake of completeness that the definition of "LCH SwapClear" also includes any new legal entity to which LCH SwapClear business or activities would be transferred in whole or in part.[3480]

(2832) Fourthly, the Commission received suggestions to amend the definition of "Middleware Providers", in particular so that it refers to companies submitting "*confirmed*" OTC IRD transactions, rather than companies submitting OTC IRD transactions.[3481]

(2833) Fifthly, several comments suggest that the definition of "OTC IRD Clearing Services" should be broader, so as to also encompass products that are intrinsically correlated to OTC IRDs (e.g. inflation swaps) and/or that have an element tied to interest rates (e.g. cross-currency swaps).[3482]

(2834) Sixthly, Bloomberg comments that the definition of "Trading venue" should not be limited to D2C and D2D trading venues, but should also account for emerging business models such as the recent development of so-called "All-to-All" trading platforms, and should therefore encompass customer-to-customer ("C2C") trading venues (in addition to D2D and D2C).[3483] The Commission also received a comment from Eurex, a competing CCP, suggesting that the definition of "Trading Venue" should also include regulated markets "*given the prospect of OTC instruments such as swaps shifting into the exchange-traded environment*".[3484]

(2835) <u>*Second*</u>, as regards the general effectiveness of the Initial Commitments to resolve the Commission's concerns in relation to potential customer foreclosure strategies in OTC IRDs, the feedback from end-customers iss overwhelmingly positive, with only 8% of respondents considering that the Initial OTC IRD Commitments do not effectively resolve the competitive concerns raised by the Transaction in the trading and clearing of OTC IRDs.[3485]

(2836) Regarding the view of trading venues on the general effectiveness of the Initial OTC IRD Commitments,[3486] a majority (60%) of trading venue competitors also agree that

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3478 Question 7, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365. See also BME's response to Question 12 of Questionnaire R3 to clearing competitors, Doc ID 8366.

3479 Question 7, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

3480 Question 7, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

3481 Question 7, Questionnaire R7 to middleware providers, response of HIS Markit, Doc ID 8317.

3482 Question 7, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365. Question 7, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.

3483 Question 7, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

3484 Question 7.1, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.

3485 Question 8, Questionnaire R1 to trading and clearing customers, Doc ID 8364.

3486 The Commission, in its assessment of the Initial Commitments, paid specific attention to the opinion of trading venue competitors, as they would be the main targets of a potential customer foreclosure strategy in OTC IRDs. More specifically, in the event of a customer foreclosure strategy against Tradeweb's rivals for the provision of D2C trading services (as specifically envisaged in Section 4.5.36.1 above), Bloomberg, as the main rival of Tradeweb in the D2C OTC IRD trading space, would

these commitments would effectively resolve the competition concerns in OTC IRD, while 40% do not, namely Bloomberg and another trading venue competitor that requested anonymityt.[3487] In this respect, the Commission notes that while the other trading venue competitor that requested anonymity claims confidentiality over the entirety of its responses to the Commission's Market Test of the Initial OTC IRD Commitments, Bloomberg provides suggestions for the improvement of the Initial OTC IRD Commitments.[3488] ,For instance, Bloomberg made the general suggestion that the application of the Initial OTC IRD Commitments should not be subject to the fact that LCH SwapClear remains an authorised or recognised CCP in the EU.[3489]

(2837) Regarding the view of clearing houses on the general effectiveness of the Initial OTC IRD Commitments, 38% of clearing competitors disagree that these commitments would effectively resolve the Competition concerns, while 25% agree and 38% reply "*I don't know*".[3490]

(2838) Finally, IHS Markit, a middleware provider, disagrees that the Initial Commitments would effectively resolve the Competition concerns, but, like Bloomberg, made several suggestions of improvement.[3491] As a general comment, IHS Markit, suggests that LCH SwapClear's non-discriminatory obligations should take the form of a FRAND standard (instead of being subject to non-discriminatory obligations only).[3492] IHS Markit also considers that the Initial OTC IRD Commitments should apply to Tradeweb in addition to LCH SwapClear.[3493]

(2839) <u>*Third*</u>, as regards more specifically the Initial OTC IRD Commitments' suitability and effectiveness in preventing the combined entity from refusing access for clearing to OTC IRD trades that are not executed on Tradeweb's venues (*i.e.* in preventing a refusal to clear), the Initial OTC IRD Commitments were well received by end-customers, as illustrated by the following comment from Bluecrest Capital Management: "*The Commitments appear to provide an effective structure to resolve the competition concern*".[3494] However, the Parties' upstream and downstream rivals made a number of suggestions and comments. Specifically, Bloomberg suggests *inter alia* that "*existing EMIR provisions relating to open access are the minimum standard by which open access shall be guaranteed by LSEG pursuant to the commitments.*"[3495]

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be the main company suffering damage. The other competitor of Tradeweb in the D2C OTC IRD trading space, TureEx, did not respond to the market test.

3487 Question 8, Questionnaire R2 to trading competitors, Doc ID 8365.

3488 The Commission, in its assessment of the Initial Commitments, took a special interest in the opinion of trading competitors, as they would be the main targets of a potential customer foreclosure strategy in OTC IRDs. More specifically, in the event of a customer foreclosure strategy against Tradeweb's rivals for the provision of D2C trading services (as specifically envisaged in Section 4.5.36.1 above), Bloomberg, as the main (and almost only) rival of Tradeweb in the D2C OTC IRD trading space, would be the main company suffering damage. The other competitor of Tradeweb in the D2C OTC IRD trading space, TureEx, did not respond to the market test of remedies.

3489 Question 12, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

3490 Question 8, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.

3491 IHS Markit was the only addressee and respondent to Questionnaire R7 to middleware providers, Doc ID 8317.

3492 Question 8.1, Questionnaire R7 to middleware providers, response of HIS Markit, Doc ID 8317.

3493 Question 8.2, Questionnaire R7 to middleware providers, response of IHS Markit, Doc ID 8317.

3494 Question 8.1, Questionnaire R1 to trading and clearing customers, response of Bluecrest Capital Management, Doc ID 8364.

3495 Question 8.1, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

(2840) In addition, Eurex expresses its general opinion that *"access and non-discrimination commitments cannot address the Commission's foreclosure concerns"*, in particular because "*it is not possible: (i) for market participants to design 'complete contracts' to capture all of the ways in which LCH could foreclose Tradeweb's rivals (i.e. it is impossible to define an ex ante bright line test); and (ii) for third parties to identify any breaches of the commitments (i.e. detect ex post anti-competitive foreclosure in many cases, to the extent that the Commitments are based on general principles)."*[3496]

(2841) <u>*Fourth*</u>, as regards more specifically the Initial Commitments' suitability and effectiveness in preventing the combined entity from engaging in potential price-based foreclosure strategies, the vast majority of the comments made by end-customers were either positive or neutral.[3497] One end-customer, KBC, is however concerned that the Initial Commitments do not prevent "*extraordinary high clearing fee for everyone, but on LCH level compensating with possibility to undercut prices on tradeweb up to even loss making business line*",[3498] in the same vein as IHS Markit's suggestion that the commitments should also apply to Tradeweb in addition to LCH SwapClear.[3499]

(2842) In addition, regarding the feedback received from trading venues, Bloomber believes that the Initial OTC IRD Commitments should include FRAND obligations,[3500] similarly to the general feedback provided by IHS Markit mentioned above.

(2843) With regard to CCPs, JSCC considers that, while the Initial OTC IRD Commitments only refer to the fact that LCH SwapClear would be prevented to apply discriminatory clearing fees, LCH SwapClear should be prevented from discriminating against Trading Venues and Middleware Providers based on clearing costs,[3501] which, the Commission notes, may include clearing fees, as well as compression fees (if the clearing member uses a compression service of LSEG), and margin requirement costs (reflecting the risk associated with the trade).

(2844) Eurex, another CCP, disagrees that the Initial OTC IRD Commitments could effectively prevent the combined entity from engaging in potential price-based foreclosure strategies, in particular because Eurex considers the scope of the Initial Commitments to be too narrow, since the Initial Commitments "*do not, for example, prevent the introduction of fees for functionality and services. Indeed, Section B.3(c) ii (iii) and Section B.3(c) iii (iii) both refer to the provision of functionality and new products on 'commercial terms' (emphasis added), implying that LCH may be contemplating the introduction of fees for the provision of functionality and new products contrary to the predominant practice at present). In a similar vein, Section B.3(c) i does not appear to capture pricing policies with equivalent effect to discrimination. For example, LCH could adopt volume-based discounts which are ostensibly non-discriminatory but favour Tradeweb's customers (or Tradeweb itself)."*[3502]

3496 Question 8.1, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.
3497 Question 8.2, Questionnaire R1 to trading and clearing customers, Doc ID 8364.
3498 Question 8.1, Questionnaire R1 to trading and clearing customers, response of KBC, Doc ID 8364.
3499 Question 8.2, Questionnaire R7 to middleware providers, response of IHS Markit , Doc ID 8317.
3500 Question 8.2, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.
3501 Question 8.2, Questionnaire R3 to clearing competitors, response of JSCC, Doc ID 8366.
3502 Question 8.2, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.

(2845) *Fifth*, as regards more specifically the Initial Commitment's suitability and effectiveness in preventing LCH SwapClear from discriminating against Tradeweb's rivals by degrading the quality or imposing disadvantageous technical/operational requirements for trades executed on Tradeweb's rivals' venues or through middleware providers, again, end-customers were unanimously either positive or neutral.[3503]

(2846) Bloomberg considers that the same obligation imposed on LCH SwapClear *"should be expanded to require LCH to offer all existing and future key workflow functionalities to all Trading Venues and Middleware Providers at the same time and not make available to Tradeweb in advance."* Bloomberg also considers that *"As currently drafted, there is the possibility for LCH to work with Tradeweb in advance of making the workflows available, so Tradeweb could launch on "Day 1", whilst other Trading Venues and Middleware Providers would only receive notice at that time and be late to market."*[3504]

(2847) Eurex considers that the Initial OTC IRD Commitments would fail to prevent LCH SwapClear from foreclosing trading venues of Tradeweb's rivals through a variety of foreclosure mechanisms, essentially because the Initial Commitments "*would not address the potential for LCH to design new functionalities to benefit Tradeweb over its rivals (e.g. by imposing high costs for implementation on Tradeweb's rivals).",* and because *"LCH could also circumvent the non-discrimination provisions in relation to new functionality by joint developing new functionality with Tradeweb so that such functionality could be integrated into their workflow immediately on release. LCH would have complied with its obligation to 'make available' all functionality simultaneously but, in such a scenario, Tradeweb would be ready to immediately go live whereas others would have to start implementing the functionality, which would give Tradeweb a significant advantage.*"[3505]

(2848) In relation to a potential technical foreclosure, IHS Markit considers that the Commitments should impose FRAND obligations on LCH SwapClear, instead of only transparency and non-discriminatory obligations.[3506]

(2849) More specifically in relation to the minimum one month advance notice with respect to any new processes or technical/operational requirements (with notice to all connected Trading Venues and Middleware Providers being served on the same day) provided by the Commitments, the majority of (i) end-customers, (ii) trading venue competitors, (iii) clearing competitors and (iv) middleware providers consider this minimum notice to be too short, at least with respect to some types/categories of technical changes, some of which might require much longer notice periods, up to one year.[3507]

(2850) *Sixth*, as regards the Initial Commitment's suitability and effectiveness in preventing LCH SwapClear from denying or degrading SwapClear's cooperation with Tradeweb's rival trading venues for the introduction of new products, once again, the

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3503 Question 8.3, Questionnaire R1 to trading and clearing customers, Doc ID 8364.

3504 Question 8.3, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

3505 Question 8.3, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.

3506 Question 8.3, Questionnaire R7 to middleware providers, response of IHS Markit , Doc ID 8317.

3507 See responses to Question 9, Questionnaire R1 to trading and clearing customers, Doc ID 8364; Question 9, Questionnaire R2 to trading competitors, Doc ID 8365; Question 9, Questionnaire R3 to clearing competitors, Doc ID 8366; and Question 9, Questionnaire R7 to middleware providers, Doc ID 8317.

reactions of end-customers are overwhelmingly positive or neutral.[3508] Bloomberg, however, suggests that LCH SwapClear should have the obligation to *"assess, in good faith, all new and enhanced products on the same basis, and using the same analytical framework, as if the new or enhanced product were advanced by Tradeweb"*.[3509] Bloomberg considers as well that when the cooperation is prevented by the existence of IP, confidentiality or other rights, LCH SwapClear should exercise its best efforts (instead of reasonable efforts) to obtain such rights.[3510]

(2851) Regarding the comments of rival CCPs, JSCC notes that *"cooperation in relation to the introduction of new products can take various forms, such as the voluntary exchange and sharing of non-public information and facilitating access to existing and potential customers, the relevant regulator, or industry associations. We believe these intangible forms of cooperation are not covered by the Commitment."*[3511] In the same vein, Eurex, another rival CCP, considers that the Initial Commitments would not be efficient to prevent LCH SwapClear from denying or degrading SwapClear's cooperation with trading venues of Tradeweb's rivals for the introduction of new products, essentially because *"(a) the commitments do not address any meaningful joint development of new cleared products, seemingly resting on a false model of CCPs developing products in isolation as the sole innovator; and (b) the commitments artificially distinguish between product and functionality innovation."*[3512]

B. Monitoring Trustee, arbitration and duration of the Initial OTC IRD Commitments

(2852) <u>*First*</u>, as regards the appointment procedure, and role, of the Monitoring Trustee in relation to the Initial OTC IRD Commitments, the Commission received very little comments. The Commission notes that the relevant provisions of the Initial OTC IRD Commitments (i.e. regarding the appointment procedure, and role, of the Monitoring Trustee) are in line with the Commission's model text for commitments, which serve as best practice guidelines for notifying parties submitting commitments under the Merger Regulation, and with precedents from past merger cases. The Commission notes however that JSCC, a CCP competitor, makes two comments which tend to question the impartiality of the Monitoring Trustee in general (*"whilst the Commitment proposes to maintain the Monitoring Trustee, with the costs borne by LSEG, it is possible that LSEG effectively maintains the ability to self-regulate, or self-certify the Commitment, with little or no oversight by an EU regulatory body in charge. Given the current business size of LCH SwapClear, we are afraid that the proposed scheme on the Monitoring Trustee may not be able to address the anti-competitive concern in relation to the merger."*[3513]), as well as in the context of the fast-track dispute resolution mechanism (*"We view the process is not transparent to the satisfaction of the parties involved in the dispute, not least because the Monitoring Trustee could be appointed solely by the discretion of LSEG."*[3514]).

3508 Question 8.4, Questionnaire R1 to trading and clearing customers, Doc ID 8364.
3509 Question 8.4, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.
3510 Question 8.4, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.
3511 Question 8.4, Questionnaire R3 to clearing competitors, response of JSCC, Doc ID 8366.
3512 Question 8.4, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.
3513 Question 6, Questionnaire R3 to clearing competitors, response of JSCC, Doc ID 8366.
3514 Question 11.1, Questionnaire R3 to clearing competitors, response of JSCC, Doc ID 8366.

(2853) <u>*Second*</u>, the Commission has asked market participants about the effectiveness of the fast-track dispute resolution mechanism and the arbitration procedure in allowing a proper enforcement of the Commitments.

(2854) *Firstly*, no end-customer disagrees on the fact that the fast track resolution procedure set out in the Initial OTC IRD Commitments is adequate to ensure the effectiveness of the Commitments (57% agree that it is adequate and 43% respond "I don't know").[3515] However, while 60% of trading venue competitors agree on the adequacy of the fast-track resolution procedure, 40% (representing two trading venues) disagree on this point.[3516] In particular, Bloomberg suggested: *"a) To limit the scope for bilateral negotiations between LSEG and the Complainant to two weeks. b) In the event the dispute is not resolved in those two weeks, the Monitoring Trustee be empowered to adopt a decision (not a proposal) which is binding for an interim period under an applicable standard that favours the Complainant. In other words, there should be a bias towards clearing the Complainant's instruments and trades or accepting its new products or enhancements. c) The decision of the Monitoring Trustee can be "appealed" through ICC Arbitration in the manner proposed but with an obligation to adopt an Award within 6 months of constitution of the Panel d) That the Commission should be specifically permitted to intervene at any stage (on request or of its own initiative) and reverse the Monitoring Trustee's decision or the Award. e) The Commitments make clear that the "fast track procedure" even if commenced has no impact on the Commission's enforcement powers under Regulation."*[3517]

(2855) In addition, clearing competitors provide mixed feedback on whether the fast track resolution procedure set out in the Commitments is adequate to ensure the effectiveness of the Commitments: 38% agree that the fast track resolution mechanism would be adequate, 38% disagree and 25% respond "I don't know".[3518] In particular, Eurex considers that the Initial Commitments rely disproportionately on the detection of potential breaches by third parties,[3519] and that the Monitoring Trustee might lack the appropriate qualifications to effectively monitor compliance with the Initial Commitments in a complex industry such as OTC IRD trading and clearing.[3520] A clearing competitor that requested anonymity also makes two suggestions, namely that paragraph 28 of the Initial Commitments do not allow for a period longer than 10 days (even if agreed by the Monitoring Trustee, while paragraph 28 of the Initial OTC IRD Commitments provide that "*The Risk Committee will report its findings to the Monitoring Trustee within 10 working days after receipt of the Monitoring Trustee's request (or such alternative period as agreed by the Monitoring Trustee*)") and that the Monitoring Trustee should not have

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3515 Question 11, Questionnaire R1 to trading and clearing customers, Doc ID 8364.

3516 Question 11, Questionnaire R2 to trading competitors, Doc ID 8365.

3517 Question 11, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.

3518 Question 11, Questionnaire R3 to clearing competitors, Doc ID 8366.

3519 To this respect, the Commission considers nonetheless that any foreclosure strategy consisting in an action undertaken by LCH SwapClear that would result in effects that would remain below the threshold of detectability by customers or trading competitors would likely fail its objective (and remain void of impact), because the point of an customer foreclosure strategy would be to prompt customers to switch trading venue (and go to Tradeweb) precisely because they see a material advantage to switching (be it under the form of better prices, better service levels, new products that are not available elsewhere, etc.)

3520 Question 11, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.

the liberty of declaring a complaint vexatious, frivolous or insufficiently substantiated.[3521]

(2856) JSCC expresses reservations with respect to the fast track dispute resolution procedure, raising concerns that it *"it effectively precludes the ability to take legal actions in the jurisdiction of the local laws of the Complainant, which includes OTC IRD Trading Venue and Middleware Provider but not CCP competing against LCH SwapClear. We believe only the legal court in the jurisdiction of where it is argued that LSEG is engaged in the anti-competitive activities, which could be the EU, would be more likely to provide a fair, transparent and impartial judgement on any dispute. We view the proposed procedure is rather restricting the complainant's opportunity to seek such judgement."*[3522]

(2857) Secondly, while only 3% of end-customers consider the timing of the fast-track dispute resolution mechanism to be inappropriate,[3523] 40% of trading customers (representing two trading venues) are of this opinion (while 60% of trading customers agree that the timing is appropriate),[3524] and clearing competitors provided a mixed feedback on the subject: 38% agreed that the timing of the fast track resolution mechanism is appropriate, 38% disagreed and 25% responded "I don't know".[3525] All negative comments in this respect suggest that the duration of the fast-track dispute resolution mechanism should be shorter, essentially because any foreclosure strategy, once implemented, can have long-lasting effects on the trading habits of customers by displacing liquidity in an irreversible way. For instance, Bloomberg, a trading venue competitor, considers that the "fast track" procedure proposed in the Initial OTC IRD Comitment does not achieve its objective because "*As drafted, it contemplates a process that would take months, perhaps years, before resolution. For a fast moving market, such as OTC IRD trading and clearing, this is simply too long to be effective. Trading Venues will have lost valuable time to market and opportunity and this is likely irreparable*"[3526] As an alternative, Bloomberg suggests an number of amendments to the fast-track resolution procedures described in recital (2919) above, in particular to limit the scope for bilateral negotiations between LSEG and the Complainant to two weeks, and to oblige the Arbitral tribunal to adopt an Award within 6 months of constitution of the Panel.[3527]

(2858) IHS Markit considers that both the fast track dispute resolution mechanism and its timing are adequate.[3528]

(2859) <u>*Third*</u>, the Commission asked for market participants' views on the 10-year duration of the Initial OTC IRD Commitments. As explained in more detail below, the feedback received was overall position.

(2860) A majority of customers indeed consider the 10-year duration of the Initial OTC IRD Commitments appropriate, while only 10% of customers consider this duration to be

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3521 Question 11, Questionnaire R3 to clearing competitors, anonymous response of a clearing competitor, Doc ID 8366.

3522 Question 11.1, Questionnaire R3 to clearing competitors, response of JSCC, Doc ID 8366.

3523 Question 11.2, Questionnaire R1 to trading and clearing customers, Doc ID 8364.

3524 Question 11.2, Questionnaire R2 to trading competitors, Doc ID 8365.

3525 Question 11.2, Questionnaire R3 to clearing competitors, Doc ID 8366.

3526 Question 11.2, Questionnaire R2 to trading competitors, response of Bloomberg Doc ID 8365.

3527 Question 11.2, Questionnaire R2 to trading competitors, response of Bloomberg Doc ID 8365.

3528 Questions 11 and 11.2, Questionnaire R7 to middleware providers, response of IHS Markit , Doc ID 8317.

inappropriate. In addition, several market participants' comments indicate that given the pace of evolution of this market, 10 years provides sufficient time for adaptation, as well as potential changes to the market structures (through new entrants/new technologies for instance). HSBC comments that *"the market will likely have evolved significantly in 10 years due to progressive electronification. This could give other providers the ability to adapt or develop sufficiently enough to make the end of any commitments deemed negligible."*[3529] Similarly, ING group is of the opinion that *"This is a substantial duration which allows time for competitor service providers (both execution platforms and clearing) to mature but also for clients of LSEG to diversify their execution and clearing away to alternative providers if preferred."*,[3530] while the Aviva group considers that *"Given the rapidly changing nature of market structure and technology driven new entrants, ten years would be considered more than long enough."*[3531]

(2861) In a similar manner, only one trading venue competitor (representing 20% of trading venue competitors) considers that a 10 year duration would not be sufficient for the OTC IRD commitments, while 60% consider that it would.[3532] Bloomberg responds "*I don't know*" and comments: *"10 years is the minimum period for Commitments of this type. But we do not exclude that a longer period will be required to ensure no detrimental market impact."*[3533] In addition, regarding CCPs, only one clearing competitor (Eurex, representing 12% of clearing competitors) considers that a 10 year duration would not be sufficient for the OTC IRD commitments, while 50% of CCP consider that the 10-year duration is appropriate.[3534] Eurex suggests that the Initial OTC IRD Commitments should be made permanent *"conditional on LSEG retaining the ability and incentive to engage in customer foreclosure"*, with regular review clauses every 3-5 years.[3535] Lastly, IHS Markit, a middleware provider, does not have a view on the duration of the Commitments.[3536]

5.4. The Final Commitments

5.4.1. Description of the Final Commitments

(2862) Following the results of the Market Test on the Initial Commitments, the Commission shared with the Notifying Party the observations made by the respondents of the Market Test (also described in Section 5.3.2 above), and in doing so identified elements of the Initial Information Services Commitments and the Initial OTC IRD Commitments that required further improvement to be acceptable, in accordance with the framework of the Remedies Notice. No such further improvements were identified with regard to the Borsa Italiana Divestment Commitments.

(2863) In order to address the comments and concerns raised by market participants during the Market Test, the Notifying Party submitted a revised set of commitments on 26 November 2020 (the "Final Commitments"). The Final Commitments consisted in a package of three sets of commitments: (i) one relating to access commitments regarding information services (the "Final Information Services Commitments"), (ii)

3529 Question 10, Questionnaire R1 to trading and clearing customers, response of HSBC, Doc ID 8364.
3530 Question 10, Questionnaire R1 to trading and clearing customers, response of ING, Doc ID 8364.
3531 Question 10, Questionnaire R1 to trading and clearing customers, response of Aviva, Doc ID 8364.
3532 Question 10, Questionnaire R2 to trading competitors, Doc ID 8365.
3533 Question 10, Questionnaire R2 to trading competitors, response of Bloomberg, Doc ID 8365.
3534 Question 10, Questionnaire R2 to trading competitors, Doc ID 8365.
3535 Question 10, Questionnaire R3 to clearing competitors, response of Eurex, Doc ID 8366.
3536 Question 10, Questionnaire R7 to middleware providers, response of IHS Markit , Doc ID 8317.

one aimed at providing fair, reasonable, and non-discriminatory access and treatment to Tradeweb's rival trading venues and middleware providers regarding the provision of clearing services for OTC IRDs (the "Final OTC IRD Commitments"), and (iii) the Borsa Italiana Divestment Commitments (which remained unchanged). The Final Information Services Commitments and the Final OTC IRD Commitments have taken as a basis the text of the Initial Commitments, introducing clarifications and improvements to address the Commission's observations following the Market Test of the Initial Commitments. The main changes introduced in the Final Commitments are summarised in the remainder of this Section Description of the Final Commitments5.4.1.

5.4.1.1. The Final Information Services Commitments

A. Final Commitments regarding LSE venue data

(2864) The Notifying Party made the following key modifications in the Final Commitments (as compared to the Initial Commitments), as regards LSE venue data.

(2865) *First*, the Notifying Party commits to make available to Third Party Vendors not just real-time LSE venue data but all LSE venue data (including non-real time LSE venue data).[3537] Third Party Data Vendors are existing and future providers of CRTDs and/or desktop services, other than Refinitiv.[3538]

(2866) *Second*, the Notifying Party added one additional parameter to determine whether a *De Facto* Failure exists, namely, relevant guidance provided by ESMA and/or the Courts of the European Union regarding RCB.[3539] The Notifying Party specified that *De Facto* Failure covers not only an excessive change in pricing terms but also excessive changes to other commercial terms of licensing LSE venue data.[3540] Any excessive change in pricing or other commercial terms to End Customers can also constitute a *De Facto* Failure to offer LSE venue data to Third Party Data Vendors.

(2867) *Third*, the Notifying Party added several clauses to ensure that the Final Commitments cannot be circumvented:

(a) The Final Commitments explicitly provide that LSE venue data will be made available to Third Party Data Vendors "*for all use cases for which [the data] are or will be made available*" to Refinitiv. This includes all the different use cases that the data might have when accessed through a CRTD or through a desktop service, e.g., used for portfolio analysis or risk management purposes;[3541]

(b) The Notifying Party commits not to "*reclassify or redefine LSE venue data in a manner that would undermine the efficacy of the Commitments*";[3542] and

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3537 Information Services Final Commitments, paragraph 1 (definition of "LSE Venue Data") and paragraph 2.

3538 This definition remained unchanged from the Initial Commitments.

3539 In an accompanying note explaining its proposed improvements, the Notifying Party explained that "*reference to De Facto Failure to supply in the IS Commitments does not rely on concepts of "excessive pricing" under Article 102... Rather, it draws on the well-established case law and precedent* [regarding refusal to supply and "constructive" refusal to supply]" (Explanatory Submission on improved IS Commitments, 18 November 2020, paragraphs 13 and 12(i)).

3540 Information Services Final Commitments, paragraph 1 (definition of "De Facto Failure").

3541 Information Services Final Commitments, paragraph 2.

3542 Information Services Final Commitments, paragraph 10(a).

(c) The Notifying Party commits to negotiate with Third Party Data Vendors in relation to any future contract regarding access to LSE Venue Data in good faith.[3543]

(2868) *Fourth*, the Final Commitments set out a mechanism for providing the Monitoring Trustee with visibility over all LSEG pricing and licensing terms for LSE venue data that could be relevant for the Monitoring Trustee's assessment of complaints regarding *De Facto* Failure.[3544]

(2869) *Fifth*, as regards partial technical foreclosure, the Notifying Party clarified the definitions of several technologies used to access LSE venue data and expanded the scope of the Commitments to reflect concerns raised by Market Test respondents:

(a) Connectivity Products include products *"which can be used by Third Party Data Vendors for the provision of Consolidated Real-Time Datafeeds and Desktop Services to End Customers...*";[3545]

(b) "*Data Dissemination Infrastructure*" includes "*all physical infrastructure owned or controlled by LSEG within or in the proximity of the LSE Data Centre through which LSE* [real-time venue data] *generated from the LSE Marching Engine is disseminated...*";[3546]

(c) The Notifying Party commits that "*any notification of a relocation concerning the LSE Data Centre will be made to all customers (including Third Party Data Vendors) at the same time as*" to Refinitiv;[3547] and

(d) The Notifying Party commits that it "shall not degrade the level of after-sales and incident resolution support that it offers to Third Party Data Vendors in any way that would negatively impact the quality of LSE Venue Data made available to Third Party Data Vendors relative to the quality provided by LSEG to" Refinitiv."[3548]

B. Final Commitments regarding the FTSE Russell UK Equity Indices

(2870) The Notifying Party modified the Initial Commitments regarding FTSE Russell UK equities indices in the following way.

(2871) *First*, the definition of *De Facto* Failure has been expanded to include changes in other commercial terms than pricing terms, including the introduction of new use cases.[3549]

(2872) *Second*, the Final Commitments add a procedural step to complaints levied by Third Party Data Vendors. In the revised procedure, the Monitoring Trustee shall verify any complaints with regards to LSEG's compliance with the Final Commitments regarding FTSE Russell UK equities indices, and LSEG will make available the relevant data to the Monitoring Trustee on a timely basis so that it can address the

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3543 Information Services Final Commitments, paragraph 10(b).
3544 Information Services Final Commitments, paragraph 2(b).
3545 Information Services Final Commitments, paragraph 1 (definition of "Connectivity Product").
3546 Information Services Final Commitments, paragraph 1 (definition of "Data Dissemination Infrastructure").
3547 Information Services Final Commitments, paragraph 7(b).
3548 Information Services Final Commitments, paragraph 9(c).
3549 Information Services Final Commitments, paragraph 1 (definition of "*De Facto* Failure").

data vendors' complaints within the 15 working days established in the fast-track procedure.[3550]

(2873) *Third*, concerning the definitions applicable to the commitments on UK equities indices, the Notifying Party made the following modifications as compared to the Initial Commitments:

(a) The Notifying Party clarified in the Final Commitments that the FTSE Russell Index Licensing Agreement also includes any applicable legacy redistribution agreement still in existence, including the FTSE International Limited Index Values Distribution Agreement and the FTSE International Limited Master Information Services Agreement.[3551]

(b) The Notifying Party expanded the scope of the FTSE Russell UK Equity Indices beyond real-time and end-of-day index data to also include related content, such as membership constituent data and historical data.[3552]

(2874) *Fourth*, the Final Commitments clarify that they apply for all use cases for which FTSE Russell UK equities indices are or will be made available to Refinitiv.[3553]

(2875) *Fifth*, the Notifying Party added several clauses to ensure that the Final Commitments cannot be circumvented:

(a) The Notifying Party commits not to reclassify or redefine FTSE Russell UK equities index data in a manner that would undermine the efficacy of the Final Commitments;[3554]

(b) The Notifying Party commits to negotiate with Third Party Data Vendors in relation to any future contract regarding access to FTSE Russell UK equity indices in good faith.[3555]

C. Final Commitments regarding LSEG Customer Information

(2876) The Notifying Party modified the Initial Commitments regarding LSEG Customer Information in order to address the comments raised by market participants, referred to in recital (2889). In particular, the definition of Customer Information was expanded to include requests received by the combined entity from a Third Party Data Vendor before the latter can provide LSE venue data or FTSE Russell UK equity indices to a new end-customer. Moreover, a clause was added to strengthen the definition of Customer Information so that end-customer identities cannot be discerned from the anonymised or aggregated data.

(2877) Further, the Final Commitments explicitly state that Customer Information can be bothaccessed and used by personnel that have signed non-disclosure agreements [3556] The Notifying Party added a commitment that compliance with the information barrier will be included in the combined entity's internal compliance framework.[3557]

3550 Information Services Final Commitments, paragraph 11.b.

3551 Information Services Final Commitments, paragraph 1 (definition of "FTSE Russell Index Licensing Agreement").

3552 Information Services Final Commitments, paragraph 1 (definition of "FTSE Russell UK Equity Indices").

3553 Information Services Final Commitments, paragraph 11.

3554 Information Services Final Commitments, paragraph 16.a.

3555 Information Services Final Commitments, paragraph 16.b.

3556 Information Services Final Commitments, paragraph 18.a.

3557 Information Services Final Commitments, paragraph 18.d.

(2878) Lastly, the Final Commitments clarify that even where Customer Information is provided to senior management of Refinitiv's CRTD or desktop services businessor any regulatory, legal, compliance or other corporate, non-business functions for the purpose of addressing, evaluating or responding to any regulatory or legal matter, this information can only be used for the purpose of the matter in question and in any event not for sales or marketing purposes of the downstream business.[3558]

D. Final Commitments regarding WM/R FX Benchmarks

(2879) The Notifying Party modified the Initial Commitments regarding WM/R FX Benchmarks. The changes to the definition of D*e Facto* Failure and the relevant procedural step have already been described above in recitals (2931) and (2933), as they are also applicable to the LSE Venue Data and FTSE Russell UK Equity Indices Commitments.

(2880) The Final Commitments also clarify that WM/R Customers capture all customers who license WM/R FX benchmarks for index licensing purposes, without the qualification that the combined entity considers them a rival in index licensing markets or not.

(2881) Finally, the Notifying Party added a commitment not to reclassify or redefine WM/R FX benchmarks in a manner that would undermine the efficacy of the commitment, and further committed to deal with WM/R Customers in relation to future contracts regarding WM/R FX Benchmarks for index licensing purposes in good faith.

E. Common considerations for the Final Information Services Commitments

(2882) First, regarding the fast-track dispute resolution mechanism, the Notifying Party has added a commitment not to suspend the provision of the relevant input (i.e. LSE Venue Data, FTSE Russell UK Equity Indices or WM/R FX Benchmarks) to the Complainant until the date of the final award of the Arbitral Tribunal or, in case a preliminary ruling is requested, until the date of this preliminary ruling, unless such suspension is necessary for legal, regulatory and/or risk management reasons or is otherwise permitted pursuant to a determination by the Monitoring Trustee.[3559]

(2883) In the Final Commitments, the Notifying Party shortened the timelines for the co-operation/consultation phase of the fast-track dispute resolution procedure. Under the Final Commitments, the Complainant and LSEG will use their best efforts to settle their disputes within 15 working days from LSEG's receipt of the Complainant's request for consultation, as opposed to the 25 working days in the Initial Commitments.[3560] Under the Final Commitments, the Monitoring Trustee has 8 working days from the submission of the request to prepare the Trustee Proposal on the dispute, instead of the 15 provided in the Initial Commitments.[3561]

5.4.1.2. The Final OTC IRD Commitments

(2884) The main changes introduced in the Final Commitments with regard to the access commitments regarding OTC IRD clearing services are as follows.

3558 Information Services Final Commitments, paragraph 19.a.
3559 Information Services Final Commitments, paragraph 41.
3560 Information Services Final Commitments, paragraph 42.
3561 Information Services Final Commitments, paragraph 43.

A. General provisions of the Final OTC IRD Commitments

(2885) *First*, the Final Commitments introduce a number of amendments to the definitions contained in Section A of the Initial Commitments.

(2886) Firstly, LSEG amended the definition of "Clearing Fees" and "OTC IRD" in the Final Commitments, which were thereupon substantially improved and broadened.

(2887) With regard to the definition of "Clearing Fees", the Final Commitments added within the scope of clearing fees "*any potential fees payable by Trading Venues and/or Middleware Providers, if applicable e.g., access fees*".[3562] While LCH SwapClear does not invoice such access fees currently, the purpose of this amendment is to ensure that the non-discriminatory provisions set out in the Final Commitments may not be circumvented by the introduction of access fees. Additionally, the Notifying Party added the terms "*and compression fees*" along with "*Clearing fees*" throughout the text of the Final Commitments, which has the same effect as if compression fees were included within the scope of the definition for "*Clearing fees*" in the Final Commitments.

(2888) With regard to the definition of "*OTC IRD*", LSEG clarified in the Final Commitments that OTC IRD means "*any derivative contract, which is a financial instrument based on a future exposure to an underlying benchmark rate, composite index, or reference basket of securities whose value is affected by changes in interest rates*" (emphasis added). Following Eurex's comments, LSEG also added in this definition the following non-exhaustive list of OTC IRD contracts: interest rate swaps, overnight index swaps, forward rate agreements and inflation swaps.[3563]

(2889) Secondly, to ensure that the commitments could not be circumvented by corporate transfers, the Final Commitments clarify that the definition of the LSEG group comprises new legal entities directly or indirectly controlled by LSEG to whom LCH SwapClear's clearing business is transferred in whole or in part.[3564] The Final Commitments also introduce a definition of "*Tradeweb*", which was a term used in the Initial Commitments but not defined.[3565] This definition also comprises new legal entities controlled by LSEG to whom Tradeweb's trading business is transferred. In the same vein, to ensure that the Final Commitments could not be circumvented in the event of legislative changes, the definition of EMIR was amended to include any new potential legislation that could replace EMIR in the future.

(2890) Thirdly, LSEG amended the definition of "*Middleware Provider*" to clarify that it includes trade "*confirmation*" or affirmation system, and refers to entities that are able to submit "*confirmed*" OTC IRD transactions for Clearing.[3566]

(2891) Fourthly, LSEG amended in the Final Commitments the definition of "*Trading venue*" so that such definition does not distinguish between D2C and D2D trading, and encompasses venues that would opt in the future for alternative models, such as the emerging so-called "*customer-to-customer*" or "*C2C*" model.[3567]

(2892) *Second*, the Final Commitments introduce three main amendments to the general operative part of the OTC IRD commitments, primarily aimed at improving the

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3562 Final OTC IRD Commitments, Section A
3563 Final OTC IRD Commitments, Section A
3564 Final OTC IRD Commitments, Section A
3565 Final OTC IRD Commitments, Section A
3566 Final OTC IRD Commitments, Section A
3567 Final OTC IRD Commitments, Section A

general effectiveness of the Initial Commitments to resolve the Commission's concerns in relation to potential customer foreclosure strategies in OTC IRDs.

(2893) Firstly, the Final Commitments contain a general provision clarifying that LSEG commits that "*it will not engage in commercial strategies that would have the object or effect of discriminating*" based on the source of the OTC IRD trade submitted to LSEG for clearing (and in particular to LCH SwapClear).[3568] The purpose and impact of this amendment is to clarify that, while the remainder of the Sections B and C of the OTC IRD Commitments provide examples of commercial strategies that would discriminate based on the source of the OTC IRD trade submitted to LSEG for clearing (and thus examples of commercial strategies that would breach the commitments), the list of these examples is not exhaustive – and the Final OTC IRD Commitments prohibit any commercial strategies that would have the object or effect of discriminating based on the source of the OTC IRD trade submitted to LSEG for clearing. In addition, LSEG clarified that compliance with the Final Commitments would not prevent LCH SwapClear from providing a different treatment to Middleware Providers (as opposed to Trading Venues), as well as Middleware Providers (*inter se*) and Trading Venues (*inter se*) if the technical specificities, in particular of MiddleWare Providers, require it.[3569]

(2894) Secondly, while under the Initial Commitments, LSEG committed that LCH SwapClear would offer its global OTC IRD clearing on an open access and non-discriminatory basis, under the Final Commitments, LSEG commits that it will comply with the undertakings taken including, but not exclusively through the intermediary of LCH SwapClear.[3570] This amendment clarifies that any commercial strategy of an entity controlled by LSEG that would have the object of effect of discriminating against rival Trading Venues or MiddleWare Providers based on the source of the trade is prohibited under the Final Commitments, including if such a strategy is applied by another entity of LSEG than LCH SwapClear, and in particular Tradeweb. This means, by way of example, that while Tradeweb is not a signatory to the Final Commitments, LSEG would breach the Final Commitments if Tradeweb engaged in a commercial strategy that has the object or effect of discriminating against trades executed on rival Trading Venues or MiddleWare Providers for the purposes of clearing OTC IRDs.

(2895) Thirdly, the Final Commitments further strengthened the ring-fencing provisions and firewalls between LSEG's OTC IRD trading and clearing activities, by committing that LSEG will also ensure that any third party suppliers that it works with in relation to OTC IRD Clearing Services are made aware of, and required to comply with, these ring-fencing and firewall obligations.[3571]

(2896) *Third*, the Final Commitments introduce some amendments to the examples of price-based foreclosure strategies that are prohibited. As mentioned above in recital (2952), the Final Commitments clarify that LSEG's non-discrimination commitments in this respect also apply to compression fees. In addition, the Final Commitments broaden the scope of LSEG's obligation not to coordinate its pricing of OTC IRD clearing pricing with other entities of its group. Firstly, while the Initial Commitments forbade LCH SwapClear from coordinating its pricing with Tradeweb,

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3568 Final OTC IRD Commitments, paragraph 2.
3569 Final OTC IRD Commitments, paragraph 2
3570 Final OTC IRD Commitments, paragraph 3
3571 Final OTC IRD Commitments, paragraph 5

the Final Commitments explicitly extend this obligation to forbid LSEG to coordinate its pricing with any entity controlled by LSEG. Secondly, the Final Commitments cite cross-subsidisation and bundling as examples of forbidden strategies, and explicitly mention indirect "*costs*" discrimination (instead of only "*price*" discrimination) as examples of forbidden strategies.[3572]

(2897) *Fourth*, the Final Commitments contain some amendments aimed at preventing potential technical foreclosure strategies. In this regard, the Final Commitments extend the minimum notice period in respect of the nature and timing of any upcoming changes to technical and operational requirements from one month to three months, and require LSEG to communicate such notice as early as practicable under a best efforts obligation. In the same vein, the Final Commitments create an obligation for LSEG to communicate technical changes as early as possible under a best efforts obligation (while maintaining that such communication cannot be later than one month before such changes take effect unless otherwise agreed with the Monitoring Trustee). Moreover, the Final Commitments clarify in paragraph 2(c)(ii) that the meaning of *"service levels"* includes (but is not limited to) *"the time period within which LCH SwapClear will accept or not accept the OTC IRD trade for Clearing"*.[3573]

(2898) *Fifth*, the Final Commitments also include clauses aimed at preventing innovation-based foreclosure strategies. The Final Commitments specify that with respect to cooperation with upstream players for the introduction of new products, LSEG commits to assess "*in good faith, under a best efforts obligation, and on a non-discriminatory basis, proposals from Trading Venues and Middleware Providers regarding new and enhanced products for Clearing, in particular by using the same analytical framework as applied to any proposals from Tradeweb*" (emphasis added).[3574]

(2899) In addition, it was clarified that the obligation to cooperate with all Trading Venues on a non-discriminatory basis in relation to the introduction of new products shall apply *"unless this is prevented by the existence of third-party IP, confidentiality or other rights and, having used best efforts to obtain consent from the holder of such rights, consent to disclose this information is refused"* (emphasis added), where the Initial Commitments only mentioned "*reasonable efforts*".[3575]

B. Fast-track dispute resolution procedure under the Final OTC IRD Commitments

(2900) The Final OTC IRD Commitments introduce several amendments to the fast-track dispute resolution procedure under the Final OTC IRD Commitments. These amendments address concerns raised during the Market Test by participants active in the OTC IRD space, in particular with regards to the importance to shorten the dispute resolution procedure for the OTC IRD commitments (see recitals (2919) and (2922) above) in light of the strong network effects characterising the OTC IRD trading and clearing markets.

(2901) *First*, the Final OTC IRD Commitments add that LSEG is forbidden from "*suspend*[ing] *the access to its global OTC IRD Clearing Services to the*

3572 Final OTC IRD Commitments, paragraph 3(c)i.
3573 Final OTC IRD Commitments, paragraph 3(c)ii.
3574 Final OTC IRD Commitments, paragraph 3(c)iii.
3575 Final OTC IRD Commitments, paragraph 3(c)iii.

Complainant until the date of the final award of the Arbitral Tribunal or, in case a preliminary ruling is requested, until the date of this preliminary ruling", unless such access suspension is necessary for regulatory and/or risk management reasons.[3576]

(2902) With the same purpose, the date by which the Arbitral Tribunal shall make a preliminary ruling if requested was halved (thus shortened from one month to ten working days). In addition, because the Final OTC IRD Commitments forbids LSEG from suspending access to its global OTC IRD clearing services under the conditions mentioned in the above recital, the Final Commitments allow LSEG to request a preliminary ruling from the Arbitral Tribunal.[3577]

(2903) *Second*, with the intention of shortening the duration of the fast-track arbitration procedure given the strong network effects in trading of OTC IRD, as a result of which even a temporary breach of the commitments can have significant detrimental effects for upstream rivals, the Final OTC IRD Commitments provide for a significantly shorter timeframe for the so-called "consultation phase" (i.e. the phase whereby LSEG and the complainant shall use best efforts to resolve the issue raised in the complaint).[3578] Under the Final OTC IRD Commitments, the maximum duration of the consultation phase is shortened to 10 working (instead of 25 working days), unless the complaint relates to a decision made by LSEG to ensure LCH Ltd's prudent risk management.[3579] Accordingly, the maximum period granted to the Monitoring Trustee to present its own proposal for resolving the dispute was decreased from 15 to 5 working days for instances where the complaint does not relate to from the day that the Complainant sent the written request to a decision made by LSEG to ensure LCH Ltd's prudent risk management.

(2904) *Third*, the Final OTC IRD Commitments made clear that the Complainant's notice produced at the beginning of the dispute resolution mechanism is "*without prejudice to the possibility for the Complainant to submit additional evidence and documents during the course of the Arbitration Procedure.*"[3580]

5.4.2. Commission's assessment of the Final Commitments

(2905) The Commission assessed the appropriateness of the Final Commitments in light of the principles set out in section 5.2 above and the results of the Market Test.

(2906) For the reasons set out below, the Commission concludes that the Final Commitments are capable of eliminating the competition concerns entirely, are comprehensive and effective from all points of view, proportionate, and capable of being implemented effectively within a short period of time.

5.4.2.1. The Borsa Italiana Divestment Commitments

(2907) *First*, the Commission concludes that the proposed divestment of Borsa Italiana (as set out in the Final Commitments, which are unchanged as compared to the Initial

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3576 Final OTC IRD Commitments, paragraph 27.

3577 Final OTC IRD Commitments, paragraph 50.

3578 According to paragraph 28 of the Final OTC IRD Commitments, when a complainant wishes to avail itself of the fast-track dispute resolution procedure and sent the pre-requisite written request to LSEG, the Complainant and LSEG will use best efforts to resolve all differences of opinion and to settle all disputes that may arise through co-operation and consultation within a reasonable period of time not exceeding 10 working days after receipt of the request, except where a complaint relates to a decision made by LSEG to ensure LCH Ltd's prudent risk management (in accordance with paragraph 29 below), in which case this period shall not exceed 25 working days (the "Consultation Phase").

3579 Final OTC IRD Commitments, paragraph 28.

3580 Final OTC IRD Commitments, paragraph 33.

Commitments) would, once implemented, eliminate the horizontal unilateral competition concerns identified by the Commission regarding the market for the provision of electronic trading services for EGBs in the EEA (in Section 4.4.1 of this Decision). As mentioned in Section 5.3.1.1 above, the divestment of Borsa Italiana includes the divestment of MTS and, post-Transaction, LSEG will be active in the provision of electronic trading services for EGBs only through Tradeweb. As such, the proposed divestment entirely removes the overlap between LSEG and Refinitiv in this market. This is confirmed by the results of the Market Test since, as explained in greater detail in Section 5.3.2.1, all respondents expect that, once confirmed, the proposed commitments would resolve the competition concerns identified by the Commission.

(2908) *Second*, the Commission considers that the proposed divestment of Borsa Italiana to Euronext is capable of being implemented effectively within a short period of time, especially given (i) the clear-cut nature of this commitment, which is a structural remedy that includes a largely standalone entity, and (ii) the fact that LSEG signed a purchase sale agreement with Euronext on 13 October 2020. While the Commission notes that the divestment of Borsa Italiana is subject to a number of regulatory (financial, merger control, and foreign investment) approvals, the Commission's investigation indicates that such required approvals do not threaten the effective implementation within a short period of time of the proposed divestment of Borsa Italiana to Euronext. Regarding merger control approvals, the German Bundeskartellamt approved the proposed sale of Borsa Italiana to Euronext on 11 November 2020, and no more merger control approvals are required. In addition, the evidence collected by the Commission during its in-depth investigation evidence that the Italian government's golden power to approve Euronext as buyer of Borsa Italian does not threaten the implementation of the proposed divestment. This is in particular confirmed by the feedback from respondents to the Market Test, as well as by the fact that Cassa Depositi e Prestiti ("CDP"), an Italian investment bank controlled by the Italian government, financially supports Euronext's acquisition of Borsa Italian.[3581]

(2909) *Third*, the Divestment Business consists of a viable business that, if operated by a suitable purchaser, can compete effectively with the merged entity on a lasting basis and that is divested as a going concern. Moreover, the results of the Market Test indicate that, as explained in greater detail in Section 5.3.2.1, the proposed sale of the Divestment Business to Euronext will ensure the viability and competitiveness of the Divestment Business. In this regard, LSEG commits to divest all the assets of Borsa Italiana, which already operates as a largely standalone financial market infrastructure group, with all regulated entities holding their own regulatory authorisations, save for certain limited shared corporate support services. The viability of the Divestment Business will be preserved by the provision of transitional services by LSEG to the purchaser, for a period of up to two years (subject to possible extensions for up to 9 months in total), on terms and conditions equivalent to those presently afforded to the Divestment Business, as agreed with Euronext on 13 October 2020.

(2910) In addition, as explained in greater detail in recital (2871) of this Decision, the respondents to the Market Test consider unanimously that Euronext is a suitable

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[3581] As part of its financial support, CDP will acquiring a stake of c.7.3% in Euronext. See https://www.euronext.com/en/about/media/euronext-press-releases/euronext-acquire-borsa-italiana-group (last accessed on 24 November 2020).

purchaser for the Divestment Business.[3582] Without prejudice to the outcome of the Commission's subsequent assessment the Commission notes the positive results of the market test with respect to Euronext's suitability as a purchaser of the Divestment Business. The Commission will formally assess the suitability of Euronext as a purchaser in a separate decision (see further recital (2843) above).

(2911) In view of the elements discussed in this Section, the Commission concludes that the Final Commitments are suitable to remove the competition concerns identified in Section 4.4.1 with regards to the provision of electronic trading services for EGBs in the EEA.

5.4.2.2. The Final Information Services Commitments

A. Final Commitments regarding LSE venue data

(2912) The Commission concludes that the Final Commitments regarding LSE venue data (the "LSE Venue Data Commitments") are capable of eliminating the competition concerns entirely; they are comprehensive and effective from all points of view; they can be implemented effectively within a short period of time; and they are proportionate.

(2913) *First*, the Commission considers that the LSE Venue Data Commitments are capable of eliminating entirely the input foreclosure concerns that the Commission raised in Sections 4.5.1 and 4.5.2. above. The Commission's input foreclosure concerns in these Sections are based on the importance of LSE venue data as an input for rival CRTD and desktop services providers.

(a) The LSE Venue Data Commitments ensure that the Notifying Party will continue to make LSE venue data available to all rival CRTD and desktop service providers for all existing and future use cases for which the data is or will be made available to Refinitiv. In addition, the Notifying Party committed to avoid any excessive change in pricing or other commercial terms that would amount to a *De Facto* Failure to offer LSE venue data.[3583] Taken together, these two undertakings eliminate the Commission's concerns regarding full foreclosure in the downstream markets for CRTDs and desktop services;[3584]

(b) The Notifying Party also commits not to degrade its connection technology in a way that would negatively impact the quality of LSE venue data made available to Third Party Data Vendors compared to the quality provided to Refinitiv. The Notifying Party also commits to notify Third Party Data Vendors and Refinitiv at the same time for any technological change or update regarding LSE venue data.[3585] Taken together, these two undertakings eliminate the Commission's concerns regarding partial technical foreclosure in the downstream markets for CRTDs and desktop services.

(2914) *Second*, the Commission considers that the LSE Venue Data Commitments are comprehensive in their scope and as such, they are adequate to address the

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3582 Question 3 Questionnaire R1 to trading and clearing customers, Doc ID 8364; Question 3, Questionnaire R2 to trading competitors, Doc ID 8365; Question 3 of Questionnaire R3 to clearing competitors, Doc ID 8366.

3583 As summarised in Section 5.4.1.1.A above.

3584 As summarised in Section 5.4.1.1.A above.

3585 For the Matching Engine, this specifically applies to notifications of changes or updates that would impact the way LSE real-time venue data is generated (see Information Services Final Commitments, paragraph 4(b)).

Commission's competitive concerns. In this respect, the Commission took into account the following:

(a) The LSE Venue Data Commitments cover *all* the data that belong to the upstream market for LSE venue data and can be an input for the downstream markets for CRTDs and/or desktop services. This includes both real-time and non-real time LSE venue data. Moreover, the Commitments cover not only existing LSE venue data products but also future LSE venue data products;[3586]

(b) As regards technical degradation, the LSE Venue Data Commitments cover *all* types of connection technology that are needed for the generation, dissemination, and transmission of LSE venue data, namely, the Matching Engine; the Data Dissemination Infrastructure; and the various Connectivity Products;

(c) The Notifying Party commits to make the LSE Venue Data available to rival CRTD and/or desktop service providers for *all* use cases for which LSE Venue Data are or will be made available to Refinitiv. This covers all possible use cases that the LSE venue data might have when accessed through a CRTD and/or a desktop service. It includes not only existing use cases (e.g., portfolio analysis or risk management) but also novel use cases that might be developed going forward; and

(d) The LSE Venue Data Commitments are effective worldwide.[3587]

(2915) *Third*, the Commission considers that the LSE Venue Data Commitments are effective in addressing the competition concerns that the Commission raised in relation to input foreclosure in CRTDs and desktop services:

(a) The LSE Venue Data Commitments do not just prevent outright refusal to supply of LSE venue data but also a *De Facto Failure* to supply. This prohibits excessive pricing or other commercial terms that could be imposed to Third Party Data Vendors for LSE venue data rendering the Commitments ineffective. This prevents LSEG from circumventing the content of the Commitments, by constructively refusing access to LSE venue data; and

(b) The LSE Venue Data Commitments include other clauses preventing the Notifying Party from circumventing the content of the Commitments. For example, the Notifying Party is prohibited from reclassifying or redefining LSE venue data in a manner that would undermine the efficacy of the Commitments. This clause prevents LSEG from taking content that today falls within the definition of LSE venue data and repackaging it in such a way as to exclude it from the scope of the Commitments.

(2916) *Fourth*, the Commission considers that the LSE Venue Data Commitments can be implemented effectively within a short period of time as they will become effective on or shortly after the adoption of this Decision.[3588]

3586 For non-real time venue data, the Notifying Party included in the Commitments "*existing and future LSE non-real time venue data products*". For real-time venue data, the Notifying Party included in the Commitments all the products that are covered by today's Real Time Market Data Agreement or any equivalent or successor agreement.

3587 See Information Services Commitments, paragraph 67.

3588 See Information Services Commitments, paragraph 67.

(2917) *Fifth*, the Commission considers that the LSE Venue Data Commitments are proportionate to the competition problems raised in Sections 4.5.1 and 4.5.2 above.[3589]

(2918) The Commission notes that the Final Commitments constitute an improvement to the Initial Commitments and fully address the shortcomings identified during the Commission's Market Test.

(2919) *First*, the Final Commitments address the concern that the concept of *De Facto* Failure is too vague.[3590] Based on the Final Commitments, the rules on RCB pricing (as interpreted by ESMA and the EU Courts) can be taken into account to determine whether LSEG's conduct amounts to a *De Facto* Failure to provide access to LSE venue data. This reflects the replies of several end-customer respondents during the Market Test, who emphasised the importance of RCB pricing and ESMA's guidance when considering possibly excessive pricing of LSE venue data.[3591]

(2920) During the Market Test of the Initial Commitments, certain respondents also submitted that LSE venue data should be licensed to Third Party Data Vendors and to end-customers on FRAND pricing terms.[3592] While non-discriminatory access to LSE venue data for both Third Party Data Vendors and Refinitiv is the central element of the Final Commitments, the Notifying Party did not commit to offer LSE venue data on FRAND pricing terms. The Notifying submitted that a FRAND pricing commitment would go beyond the competition problems raised by the Commission and that the *De Facto* Failure standard is at least as conceptually robust as FRAND.[3593]

(2921) In this respect, the Commission recalls that its input foreclosure concerns involving LSE venue data envisaged possible total foreclosure and/or partial foreclosure based on technical degradation of the input. The Commission did not raise concerns regarding a possible price-based partial foreclosure strategy (for the reasons explained in footnotes 1053 and 1412 above). As such, a commitment to license the LSE venue data on FRAND pricing terms would not be warranted or proportionate. The same is the case for a commitment that would introduce a price cap for LSE venue data.[3594] However, if the Notifying Party engaged in total foreclosure by excessively increasing the price of LSE venue data to Third Party Data Vendors or to End-Customers, this could amount to *De Facto* Failure to supply the LSE venue data within the meaning of the Final Commitments.

(2922) *Second*, the Final Commitments expand and clarify the concept of *De Facto* Failure to provide access to LSE venue data, which ensures that the Commitments will be effective in addressing the Commission's competition concerns.

(2923) Unlike in the Initial Commitments, the concept of *De Facto Failure* is not limited to pricing terms but includes all types of licensing terms. This broader definition addresses the concern that LSEG could effectively refuse to supply LSE venue data

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3589 Regarding the proportionality of the LSE Venue Data Commitments, see in more detail, recitals (2920), (2925) and (2929) below.

3590 See recital (2814) above.

3591 See recital (2814) above.

3592 See recital (2814) above.

3593 Because it can draw from the the "refusal to supply" case law of the EU Courts regarding Article 102 TFEU (Explanatory Submission on improved IS Commitments, 23 November 2020, paragraphs 10ff).

3594 Price caps were also considered by certain respondents to the market test. See Bloomberg's reply to Question 2.1, Questionnaire R5 to data vendors, Doc ID 8368.

to Third Party Data Vendors by imposing excessively burdensome licensing terms other than pricing (e.g., excessive reporting or auditing obligations).[3595]

(2924) In the context of *De Facto Failure*, the Final Commitments not only cover the pricing and licensing terms that LSEG applies vis-a-vis Third Party Data Vendors. Any excessive change in pricing terms or other commercial terms to End Customers can also constitute a *De Facto Failure* to offer LSE venue data to Third Party Data Vendors. This clause prevents a strategy whereby e.g., LSEG would increase excessively not only the redistribution fees (charged to data vendors) but also the licensing fees of end-customers who are purchasing LSE venue data through rivals of Refinitiv.

(2925) During the Commission's Market Test, a small number of respondents called for parity in pricing and/or licensing terms across all end-customers, regardless of whether they purchase LSE venue data through Refinitiv or through rival CRTDs and desktop services.[3596] The Final Commitments do not include a clause to that effect. In this respect, the Notifying Party submitted that such a commitment would not be proportionate to the competition concerns that the Commission identified. The Notifying Party added that such a commitment would amount to a rigid licensing model ultimately placing LSEG at a competitive disadvantage vis-a-vis its rivals.[3597]

(2926) In this respect, the Commission notes that its input foreclosure concerns involving LSE venue data envisaged possible total foreclosure and/or partial foreclosure based on technical degradation of the input. The Commission did not raise concerns regarding a possible partial foreclosure strategy based on the pricing or other licensing terms imposed on end-customers of rival data vendors. As such, a commitment to ensure parity across end-customers for pricing and other licensing terms would not be warranted or proportionate.

(2927) Notwithstanding this, the Commission notes that the Final Commitments take into account the pricing and licensing terms imposed on end-customers to determine whether there is a De Facto Failure to provide LSE venue data to Third Party Data Vendors. The Final Commitments also describe in detail the procedure that Third Party Data Vendors can follow to receive information on the changes of LSEG's pricing or licensing terms vis-a-vis end-customers.[3598] In any event, in the Market Test, the majority of informative end-customer respondents indicated that the Initial Commitments were suitable to prevent the combined entity from limiting the distribution of LSE venue data among Third Party Data Vendors[3599] and more broadly, that the Initial Commitments are suitable to address all the competition problems that the Commission had raised in the SO.[3600] These aspects of the Initial Commitments remain unchanged in the Final Commitments.

(2928) *Third*, unlike the Initial Commitments, the Final Commitments provide that the combined entity will make *all* LSE venue data available to Third Party Data Vendors for all use cases for which the data are or will be made available to Refinitiv. The term LSE venue data is now explicitly defined to include real-time *and* non-real time venue data products. While the Commission's competition concerns focused on real-

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3595 See paragraph (2814) above.
3596 See paragraph (2816) above.
3597 Explanatory Submission on improved IS Commitments, 23 November 2020, paragraph 17.
3598 Information Services Final Commitments, paragraph 2(b).
3599 Question 2, Questionnaire R4 to information services end-customers, Doc ID 8367.
3600 Question 5, Questionnaire R4 to information services end-customers, Doc ID 8367.

time venue data which represent more than [a very high percentage] of LSEG's total revenues from LSE venue data,[3601] non-real time LSE venue data also constitute an input for the downstream products of Third Party Data Vendors. The broader definition of LSE venue data in the Final Commitments addresses concerns by Market Test respondents[3602] and ensures the comprehensiveness of the Final Commitments.

(2929) During the Commission's Market Test, a small number of respondents called for extending the scope of the Commitments to include venue data from other LSEG venues (e.g., Turquoise or CurveGlobal).[3603] Market test respondents also submitted that access to LSE venue data should be guaranteed not only to CRTD and desktop service providers but also to the suppliers of other packaged solutions (e.g., non-real time datafeeds).[3604] The Commission notes that its input foreclosure concerns were specific to the relevant markets for LSE venue data (upstream) and CRTDs and desktop services (downstream). As such, an extension of the scope of the remedies to other trading venues or other data vendor products is not warranted or proportionate.

(2930) *Fourth*, under the Final Commitments, the Notifying Party also clarified the definitions of Data Dissemination Infrastructure and Connectivity Products, reflecting feedback from data vendors during the Market Test.[3605] The Final Commitments also clarify that the latency of LSE real-time venue data that determines whether LSEG degraded connection technology offered to Third Party Data Vendors is the latency of the data delivered to the end-customer.[3606] This addresses concerns raised during the Market Test that LSEG could circumvent its commitments by maintaining the latency of the data delivered to the data vendor but ultimately degrading the latency of the data delivered to the end-customer.[3607]

(2931) The Final Commitments also include two additional undertakings compared to the Initial Commitments to address concerns from Market Test respondents:[3608]

(a) LSEG shall not degrade the level of after-sales and incident resolution support that it offers to Third Party Data Vendors in any way that would negatively impact the quality of LSE Venue Data made available to Third Party Data Vendors relative to the quality provided by LSEG to Refinitiv; and

(b) Regarding a possible relocation of the LSE Data Centre, LSEG shall notify all customers (including data vendors) at the same time as Refinitiv.

(2932) As a result of these clarifications and additions, the Final Commitments effectively address the Commission's concerns regarding partial technical foreclosure in the downstream markets for CRTDs and desktop services.

(2933) The Commission therefore concludes that the LSE Venue Data Commitments are capable of eliminating the Commission's competition concerns, that they are comprehensive and effective and that they can be implemented effectively within a short period of time. Moreover, they are proportionate to the competition concerns identified by the Commission.

3601 Form CO, Information Services, Annex 12.
3602 See paragraph (2813) above.
3603 See paragraph (2813) above.
3604 See paragraph (2813) above.
3605 See paragraph (2817) above.
3606 Information Services Final Commitments, paragraphs 3, 5(a), and 7.
3607 See paragraph (2817) above.
3608 See paragraph (2817) above

B. Commitments regarding the FTSE Russell UK Equity Indices

(2934) As regards the general effectiveness to resolve the Commission's concerns in relation to the total or partial foreclosure of FTSE Russell UK Equity Indices to providers of CRTDs and desktop services, for the reasons set out below, the Commission considers that the Final Commitments are capable of eliminating the competition concerns entirely; they are comprehensive and effective from all points of view; they can be implemented effectively within a short period of time; and they are proportionate.

(2935) The Commission considers that the commitment to make FTSE Russell UK Equity Indices available to data vendors effectively addresses the Commission's concern that the combined entity could engage in total foreclosure of these indices regarding the downstream markets of CRTDs and desktop services. Given that the Commission's concern primarily relates to the decrease in quality of their offering that rivals in CRTDs and desktop services would experience in the event of a total foreclosure, the remedies effectively allow data vendors to continue having access to FTSE Russell UK Equities Indices, and therefore maintaining the quality of their products. This commitment therefore comprehensively addresses all concerns related to total foreclosure of FTSE Russell UK Equities Indices to CRTD and desktop services providers. Furthermore, as a result of the comments from market participants,[3609] the Notifying Party broadened the definitions of the FTSE Russell Index Licensing Agreement and the FTSE Russell UK Equity Indices so as to include the products that market respondents consider relevant to address the Commission's concerns. Given that all suggestions from market participants were incorporated into the Final Commitments, the Commission considers that the Commitments are therefore comprehensive in their scope.

(2936) Concerning the provisions in the Final Commitments designed to prevent the combined entity from circumventing its commitment to make its FTSE Russell Indices available to downstream rivals by engaging in a *De Facto* Foreclosure (e.g. through excessive pricing or changes to the commercial terms), the Commission considers the expanded definition of *De Facto* Failure and the procedural manner in which it can be monitored provided in the Final Commitments to be effective and enforceable. This is because data vendors are capable of raising concerns before the Monitoring Trustee, who will issue its opinion with full access to the relevant metrics within a reasonable period of 15 working days. While end-customers do not have access to the Monitoring Trustee, they can raise concerns with their data vendor, which can raise their concerns with the Montioring Trustee, and would have the incentive to do so to continue servicing such end-customers. Moreover, the comments raised by data vendors and end-customers in their feedback to the Initial Commitments were incorporated into the Final Commitments, in the form of an inclusion of not only excessive changes to the pricing, but also changes to the commercial terms of the licensing agreements. Market participants had raised concerns that it would be difficult for them to establish what "excessive pricing" would mean,[3610] and for this purpose the Monitoring Trustee will be provided with all the data necessary to ascertain whether the conditions of access provided to data vendors (or to end-customers via the data vendors) do not amount to a *De Facto* Failure to supply. This undertaking effectively addresses the potential ambiguity of

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3609 See recital (2820) above.

3610 See recital (2822) above.

the definition, and is proportionate, firstly because it is exercisable only by the data vendors (i.e. the foreclosed customers) and secondly because it does not require the combined entity to make its pricing arrangements public to determine whether excessive pricing has been charged, which is not common practice in the index licensing market according to the Notifying Party.

(2937) As regards the Commission's concern that the combined entity would engage in partial foreclosure through technical degradation, the Commission considers that the Final Commitments address the totality of the Commission's concerns in an effective manner. This is because the Final Commitments comprehensively cover all modalities through which partial foreclosure could take place, i.e. through the degradation of the data itself, or through the degradation of the infrastructure through which the indices are made available to customers. Moreover, the Final Commitments establish that the concept of quality is benchmarked to the quality provided to Refinitiv, which effectively ensures that Refinitiv does not benefit from access to better quality to FTSE Russell UK Equitiy Indices than other data vendors. The Commission did not request substantive modifications on the provisions concerning partial foreclosure through technical degradation in the Initial Commitments, as both end-customers and data vendors agreed during the Market Test that the Initial Commitments concerning partial foreclosure through technical degradation are suitable to comprehensively address the Commission's concerns in this regard.[3611]

(2938) Lastly, the Commission considers that the Final Commitments put in place effective measures to prevent circumvention by the combined entity. Notably, the Notifying Party's commitment to ensure that access is provided to rival CRTD and desktop services providers for all use cases for which FTSE Russell UK Equity Indices are provided to Refinitiv, and the commitment not to reclassify or redefine the indices in a manner that would undermine the efficacy of the Final Commitments jointly avoid a narrow interpretation of the Commitments which could allow for circumvention. In addition, the Notifying Party's commitment to negotiate with data vendors in good faith directly addresses the comments raised by some data vendors about the combined entity's ability to circumvent the Final Commitments.[3612]

(2939) Considering the above amendments to address market participants' concerns, together with the remainder of the neutral-to-positive market feedback to the Initial Commitments, the Commission considers that the Final Commitments regarding FTSE Russell UK Equity Indices effectively and comprehensively address the Commission's concerns. As they are circumscribed to the competition concerns raised by the Commission, and as they codify the practices that the Notifying Party already engages in, they are proportionate to the concerns raised.

(2940) Lastly, given that the Commitments will be effective immediately after the adoption of the current Decision, the Commitments can thus be effectively implemented in a timely manner.

C. Commitments regarding LSEG Customer Information

(2941) As regards the general effectiveness to resolve the Commission's concerns in relation to the use of commercially sensitive information to harm competitors in the markets of CRTDs and desktop services, the Commission considers that the Final

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3611 See recital (2818) above.

3612 See recital (2822) above.

Commitments are capable of eliminating the competition concerns entirely; they are comprehensive and effective from all points of view; they can be implemented effectively within a short period of time; and they are proportionate.

(2942) *First*, the Final Commitments are capable of eliminating the competition concerns entirely, as they are designed to prevent the use of Customer Information to the detriment of Third Party Data Vendors. Moreover, they are comprehensive enough to address the competition concerns since the definition of Customer Information covers the commercially sensitive information which gave rise to the Commission's concerns, and has been extended to address market participants' observations, in particular regarding the inclusion of requests relating new end-customers of Third Party Data Vendors.

(2943) *Second*, the Final Commitments are effective because they comprise sufficiently clear measures to make them operational; namely, the obligation for personnel with access to Restricted Customer Information to sign non-disclosure agreements and follow appropriate training, the storage of the relevant information on a separate IT space, and the inclusion of these measures in the combined entity's internal compliance framework. In this respect, the Final Commitments also address market participants' concerns given that the exclusions from Restricted Customer Information can only be in the form of anonymised or aggregated data from which customer identities cannot be discerned. Moreover, the Final Commitments are effective because the possible exception has been clearly circumscribed by referring to the purpose of addressing, evaluating or responding to any regulatory or legal matter, and it has been explicitly stated that Customer Information can only be used for the purpose of the matter in question and in any event cannot be used for sales or marketing purposes of the downstream business.[3613]

(2944) *Lastly*, the Final Commitments can be implemented in a timely manner as they take effect immediately and allow for monitoring and enforcement on a continuous basis by the concerned market participants themselves through the fast-track dispute resolution mechanism.

(2945) The Commission also considers that the Final Commitments are proportionate because they do not prescribe overly burdensome measures for the combined entity in terms of implementation or monitoring.

D. Commitments regarding WM/R FX Benchmarks

(2946) As regards the general effectiveness to resolve the Commission's concerns in relation to potential input foreclosure of WM/R FX Benchmarks to participants in the index licensing markets, for the reasons set out below, the Commission considers that the Final Commitments are capable of eliminating the competition concerns entirely; they are comprehensive and effective from all points of view; they can be implemented effectively within a short period of time; and they are proportionate.

(2947) First, the Final Commitments are capable of eliminating the competition concerns linked to input foreclosure entirely because they guarantee continued access to the

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3613 Regarding the request from a market participant that "*personnel of the Combined Entity with access to Restricted Customer Information may only use such information for the limited purpose of ensuring compliance by the Third Party Data Vendor and End Customers"* the Notifying Party did not change the Initial Commitments, submitting that such a restriction was not needed for the effectiveness of the commitments once the express prohibition to use Customer Information for sales or marketing purposes was included. The Commission accepts the latter clarification as sufficient for this commitment to be effective and proportionate.

input in question, WM/R FX Benchmarks, to current and future participants in the index licensing markets.

(2948) Second, the Final Commitments are comprehensive, because they cover all the relevant inputs and all the potential targets of foreclosure giving rise to the Commission's competition concerns. Moreover, in addition to an outright refusal to supply, the Commission considers the definition of "*de facto* failure" and the procedural manner in which it can be monitored provided in the Final Commitments to prevent the combined entity from circumventing the content of the Commitments, by a constructive refusal to supply equivalent to total input foreclosure of WM/R FX Benchmarks, which would have rendered the Commitments ineffective. This addresses the comments raised by index providers in their feedback to the Initial Commitments.

(2949) Third, the Final Commitments are effective from all points of view because they are sufficiently clear and moreover they strengthen the anti-circumvention provisions against reclassifying or redefining WM/R FX benchmarks in such a way as to render the Commitments ineffective.

(2950) Fourth, the Final Commitments are effective from all points of view because they provide comfort to the index providers with the inclusion of a commitment of the combined entity to deal with WM/R Customers in relation to future contracts regarding WM/R FX Benchmarks for index licensing purposes in good faith.

(2951) Lastly, the Final Commitments can be implemented in a timely manner as they take effect immediately and allow for monitoring and enforcement on a continuous basis by the concerned market participants themselves through the fast-track dispute resolution mechanism.

(2952) The Commission also considers that the Final Commitments are proportionate because they do not prescribe overly burdensome measures for the combined entity in terms of implementation or monitoring.

E. Common considerations for the Information Services Commitments

(2953) As regards the role of the Monitoring Trustee, the fast-track dispute resolution mechanism and the arbitration procedure, the Commission notes that the Final Commitments include further safeguards to ensure that the Information Services Commitments are capable of eliminating the competition concerns entirely; they are comprehensive and effective from all points of view; they can be implemented effectively within a short period of time; and they are proportionate.

(2954) In particular, the Final Commitments provide for an arbitration mechanism, including an option for a fast-track dispute resolution procedure, as a means of resolving disputes relating to the combined entity's compliance with the Final Commitments, thus rendering the latter enforceable by market participants themselves. The market feedback indicated that the timelines envisaged in this procedure are in line with market practice, and thus the Commission considers them suitable.

(2955) Moreover, the Final Commitments allow Third Party Data Vendors and index providers to benefit from the fast-track dispute resolution mechanism as they can directly lodge a Complaint with the combined entity and Monitoring Trustee about an apparent breach. Although certain market participants provided feedback requesting the inclusion of end-customers in the definition of "Complainant" so as to be able to benefit from the fast-track dispute resolution mechanism, the Commission considers that it is sufficient that the fast-track dispute resolution mechanism can be

used by players active on the markets where there would be a significant impediment to effective competition, namely the data vendors and index providers. In any event, any end-customers potentially impacted by a foreclosure strategy could raise their complaints with their data vendor and/or index providers, who would be motivated in turn to become a Complainant or risk losing those end-customers. Indeed, the market feedback gave no evidence that third party data vendors or index providers would be reluctant to make use of the fast-track dispute resolution mechanism. Therefore, the Commission considers that the fast-track dispute resolution procedure allows market participants themselves to monitor the Final Commitments on an ongoing basis and to enforce them in a timely manner, thus making them effective from all points of view.

(2956) The Final Commitments also include a commitment not to suspend the provision of the relevant input (i.e. LSE Venue Data, FTSE Russell UK Equity Indices or WM/R FX Benchmarks) to the Complainant until the date of the final award of the Arbitral Tribunal or, in the case that a preliminary ruling is requested, until the date of this preliminary ruling, unless such suspension is necessary for legal, regulatory and/or risk management reasons or is otherwise permitted pursuant to a determination by the Monitoring Trustee. The Commission considers that this dispels any concern that third parties would be discouraged from coming forward with a valid complaint for fear of interruption of access.

(2957) Lastly, taking into account the positive market feedback from the majority of end-customers and data vendors, and the characteristics of the markets under assessment, in particular the pace at which the information services markets evolve, the Commission considers that the 10-year duration provided by the Final Commitments in relation to Information Services is proportionate and sufficient. As for the alternatives proposed by the index providers who did not find the duration of the Initial Commitments regarding WM/R FX Benchmarks sufficient (see recital (2891)), the Commission notes that there was no substantiated reason as to why 15 years would be more appropriate than 10 years. Nor does the Commission find an indeterminate duration or a duration subject to a market consultation to be suitable or proportionate; indeed, paragraph 70 of the Remedies Notice states that "*the Commission may accept that non-divestiture remedies are limited in their duration*".

(2958) In particular, the Commission notes that while WM/R is currently the market standard, there are 2 other entities present in the market and 10 years is a sufficiently long time for either the market to evolve or for market participants, if they continue to have concerns regarding the provision of FX Benchmarks following the expiration of the commitments, to organise themselves such that these benchmarks become viable alternatives.

(2959) The Commission notes that the Final Information Services Commitments provide the Monitoring Trustee with genuine implementation powers in order to monitor the implementation of and compliance with the Commitments, to act as a contact point for any requests by third parties (and in particular potential Complainants) and to propose to the combined entity such measures as the Monitoring Trustee considers necessary to ensure the combined entity's compliance with the Commitments. The conditions imposed on the Monitoring Trustee as well as the appointment procedure for the Monitoring Trustee ensure that the Monitoring Trustee possesses the required independence from LSEG and is not exposed to any Conflict of Interest in the course of his mandate (as well as for one year after the Commitment Period ends). As a result, the Commission considers that the Monitoring Trustee's mandate is appropriate from all points of view in order to ensure the smooth and effective implementation of the commitments.

(2960) In conclusion, for the reasons above, the Commission considers that the provisions of the Final Commitments in relation to the appointment and role of the Monitoring Trustee, the arbitration procedure and the duration of the Final Information Services Commitments improve the Initial Commitments and ensure that the Final Commitments address the Commission's competition concerns. *Lastly*, the provisions of the Final Commitments in relation to the appointment and role of the Monitoring Trustee and the arbitration procedure can be implemented in a timely manner as they take effect immediately.

5.4.2.3. The Final OTC IRD Commitments

A. General provisions of the Final OTC IRD Commitments

(2961) The Commission concludes that the Final OTC IRD Commitments are capable of eliminating the competition concerns entirely; they are comprehensive and effective from all points of view; they can be implemented effectively within a short period of time; and they are proportionate.

(2962) *First*, the Commission considers that the Final OTC IRD Commitments are capable of eliminating entirely the concerns raised by the Commission in Section 4.5.36.1 above arising from the combined entity's ability and incentives to engage in customer foreclosure strategies that would foreclose rival trading venues of Tradeweb and middleware providers such as IHS Markit.

(2963) Firstly, LSEG commits under the Final OTC IRD Commitments to offer its global OTC IRD Clearing Services on an open access basis and to not engage in commercial strategies that would have the object or effect of discriminating based on the source of the OTC IRD trade submitted to LSEG for Clearing (and in particular to LCH SwapClear).[3614] This broad and general commitment prohibits any discriminatory commercial behaviour from LSEG, which would favour its OTC IRD trading activities, under any form whatsoever, for the clearing of OTC IRDs. In addition, the Final OTC IRD Commitments oblige LSEG to establish appropriate ring-fencing and firewalls between its trading and clearing activities for OTC IRDs in order to ensure that any LSEG entities active in OTC IRD Clearing Services do not provide to LSEG's entities active in OTC IRD trading (and in particular Tradeweb for as long as LSEG holds a controlling shareholding in Tradeweb) any OTC IRD Clearing Services information about current and future prices, technical, operational or service quality requirements, or innovation or new product launches, which other Trading Venues and Middleware Providers would not otherwise obtain at the same time.[3615]

3614 The Final OTC IRD Commitments apply to all OTC IRD Trading Venues and Middleware Providers, including for the avoidance of doubt any Trading Venues and Middleware Providers which request to be connected to LSEG (and in particular to LCH SwapClear) for OTC IRDs in the future, and irrespective of their location. By these commitments LSEG commits to not engage in commercial strategies in relation to OTC IRD Clearing Services (including via LCH SwapClear or by LSEG, including via LCH SwapClear, coordinating its activities or strategies with Tradeweb) that have the object or the effect of foreclosing Trading Venues and Middleware Providers by applying discriminatory conditions to, on the one hand, trades executed on or from Tradeweb, and on the other hand, trades executed on or from other Trading Venues than Tradeweb and/or Middleware Providers, including in terms of price (e.g. Clearing Fees), service level and service offering, technical, operational or service quality requirements, cooperation and innovation or new product launches.

3615 The Final OTC IRD Commitments further ensure that, if Tradeweb obtains such information, LSEG will have to communicate the information to other Trading Venues and Middleware Providers

(2964) Secondly, the Final OTC IRD Commitments are capable of eliminating entirely the risks that LSEG engages post-Transaction in a total foreclosure strategy whereby it would refuse to clear trades that are not executed on through Tradeweb. Indeed, according to paragraph 3 of the Final OTC IRD Commitments, LSEG commits that LSEG (and in particular LCH SwapClear) will continue to comply with all regulatory requirements set out in EMIR (as may be amended from time to time) to the extent applicable to the non-discriminatory and transparent Clearing of OTC IRDs, including the Article 7 EMIR provisions that would otherwise apply to EU-recognised CCPs only, irrespective of the nature and scope of any future trade agreement concluded between the European Union and the United Kingdom (or the absence thereof).[3616] As such, and in accordance with Article 7 EMIR, LSEG committed in particular under the Final OTC IRD Commitments that it shall "*accept clearing [OTC IRD] contracts on a non-discriminatory and transparent basis, regardless of the trading venue*" and "*accede to or refuse a formal request for access by a trading venue within three months of such a request*".[3617]

(2965) Thirdly, the Final OTC IRD Commitments are capable of eliminating entirely the risks that LSEG, post-Transaction, increases SwapClear's clearing charges for rival trades. Paragraph 3 of the Final OTC IRD Commitments prevents LSEG from engaging in such price-based foreclosure as it provides that LSEG shall ensure that all current and future Clearing Fees and compression fees (if the Clearing Member uses a compression service of LSEG) will be set in a transparent manner and will be non-discriminatory between Trading Venues and Middleware Providers. In addition, in order to prevent circumvention strategies, LSEG commis that it shall not coordinate its pricing, including with Tradeweb, *e.g.* by way of cross-subsidization or bundling in relation to OTC IRD products cleared by LSEG (and in particular LCH SwapClear) and/or offered for trading by Tradeweb – in a way that could result in LSEG (and in particular LCH SwapClear) engaging in indirect price or cost discrimination between Tradeweb and other Trading Venues and Middleware Providers or otherwise based on a trade's route to Clearing.

(2966) Fourthly, the Final OTC IRD Commitments are capable of eliminating entirely the risks that LSEG, post-Transaction, degrades the quality or imposes disadvantageous technical/operational requirements for SwapClear's clearing of rival trades (technical foreclosure). In particular, LSEG commits under the Final OTC IRD Commitments to guarantee non-discriminatory treatment in respect of service levels (including but not limited to the time period within which LCH SwapClear will accept or not accept the OTC IRD trade for Clearing), technical specifications and operational standards (including interoperability requirements) that must be met by Trading Venues and Middleware Providers to maintain connectivity to LCH SwapClear, and functionalities offered by LCH SwapClear.

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simultaneously, in the same format, and with the same degree of substance and the same level of cooperation.

3616 To prevent LSEG from (totally) foreclosing middleware providers, the Final OTC IRD Commitments apply all regulatory requirements set out in EMIR (as may be amended from time to time) to the extent applicable to the non-discriminatory and transparent Clearing of OTC IRDs to any Middleware Provider in the same manner as they are applicable to Trading Venues, again irrespective of the nature and scope of any future trade agreement concluded between the European Union and the United Kingdom (or the absence thereof).

3617 Article 7 EMIR also provides that the competent authority of the trading venue and that of the CCP may refuse access to the CCP following a formal request by the trading venue only where such access would threaten the smooth and orderly functioning of the markets or would adversely affect systemic risk.

(2967) Fifthly, the Final OTC IRD Commitments are capable of eliminating entirely the risks that LSEG, post-Transaction, denies or degrades SwapClear's cooperation with Tradeweb's rival trading venues for the introduction of new products (innovation foreclosure). In particular, LSEG commits under the Final OTC IRD Commitments to cooperate on a non-discriminatory basis in relation to OTC IRD Clearing Services with Trading Venues that want to introduce new OTC IRD products for Clearing,

(2968) *Second*, for the reasons set out below the Commission considers that, following the improvements made to the Initial Commitments, the Final Commitments are capable of eliminating the competition concerns relating to OTC IRDs entirely, are comprehensive and effective, proportionate, and capable of being implemented effectively within a short period of time.

(2969) *Firstly*, as regards the definitions (Section A) contained in the Initial Commitments, the Final Commitments introduce several substantial changes to the relevant definitions to ensure that market practice is appropriately reflected. These clarifications were necessary in order either (i) to make the Commitments effective with an increased certainty, by broadening the scope of certain definitions or (ii) to ensure that the Commitments remain effective over a long period of time (10 years), by making some definitions more resilient to changes in the market structure or regulation. The broadening of the scope of the definition of "*Clearing Fees*" and "*OTC IRD*" fall under this first category, while the amendments regarding the definitions of "*LSEG*" (as well as the new definition for "*Tradeweb"*, which was absent from the Initial Commitments*)*, "*EMIR*" and "*Trading venue*" fall under the second category. The Commission considers that all of these modifications are appropriate and effective in addressing the corresponding remarks made by customers and competitors of the Parties in the course of the Market Test of the Initial Commitments.

(2970) *Secondly*, as regards the general effectiveness of the Initial Commitments to resolve the Commission's concerns in relation to potential customer foreclosure strategies in OTC IRDs, as mentioned in Section 5.4.1.3.A above, in order to address certain shortcomings of the Initial OTC IRD Commitments identified in the course of the Market Test by Eurex, as well as other respondents, the Notifying Party has introduced a new anti-circumvention clause explicitly setting a very broad requirement that LSEG will not engage in any commercial strategies that have the object or effect of foreclosing Trading Venues and MiddleWare Providers. The Commission considers that the Final Commitments will be effective in preventing the risk of circumvention and capturing any potential discriminatory behaviour of the Parties which would not already be explicitly covered under the text of the Initial Commitments.[3618]

(2971) The Commission considers as well that the clarification that the Final Commitments should apply to LSEG (instead of LCH SwapClear only – so that while Tradeweb is not a signatory to the Commitments and so is not bound by them, they do apply to LSEG in its capacity as a majority shareholder of Tradeweb) add clarity to the wording of the Final Commitments and broaden their scope.

(2972) The Commission also considers that the specification that LSEG will also ensure that any third party suppliers it works with in relation to OTC IRD Clearing Services are made aware of, and required to comply with, the ring-fencing and firewall

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3618 Paragraphs 3 to 5 of the Final OTC IRD Commitments therefore provide non-exhaustive examples of behaviours that would breach its obligations under the Final OTC IRD Commitments.

obligations, make the ring-fencing measures set out in the Final OTC IRD Commitments more effective.

(2973) The Commission considers that the Initial OTC IRD Commitments, as well as the Final OTC IRD Commitments, are proportionate to the concerns raised by the Commission in relation to OTC IRD trading and celaring, because they limit themselves to the prevention of the specific potential foreclosure behaviour identified by the Commission and they do not prescribe overly burdensome measures for the combined entity in terms of implementation or monitoring.

(2974) *Thirdly*, as regards more specifically the Initial OTC IRD Commitments' suitability and effectiveness to prevent the combined entity from engaging in potential price-based foreclosure strategies, the Commission considers that the Final OTC IRD commitments would be effective in their concept in preventing the combined entity from engaging in the potential price-based foreclosure strategies identified by the Commission (namely strategies whereby LCH SwapClear would increasing clearing charges for D2C OTC IRD trades executed on trading venues of Tradeweb's rivals), because the Final OTC IRD Commitments would precisely have the effect to forbid any price-discrimination between Trading Venues and Middleware Providers.

(2975) In addition, the Commission considers that the clarification that LSEG's non-discrimination commitments in this respect also apply to compression fees strengthens the Final Commitments and broadens their scope in such a way that addresses the concerns expressed by certain respondents to the Market Test. The Commission considers that no price components other that compression fees would need to be covered by the commitments with respect to OTC IRDs in order to address the Commission's competition concerns in their entirety. As observed in recital (2908) above, price components other than clearing fees within the *"clearing costs"* refered to by some respondents could only include (i) compression fees and (ii) margin requirements. The Commission nonetheless does not consider it necessary to extend this clarification to margin requirements, as suggested by some respondents to the Market Test asking to extend the Initial Commitments to clearing costs more broadly, because (i) none of the respondents to the Market Test (either customer or competitor) raised any need for the inclusion of margin requirements specifically within the scope of the relevant provision of the Commitments, (ii) the way margin requirements are calculated and the corresponding risk models are already under the scrutiny of the financial supervisors, thus making any price-discrimination in relation to margin requirements very challenging to apply in practice, (iii) margin requirements are not set on a by-product or by-trading venue manner, but rather depend on the overall risk profile of each customer across its whole portfolio of products, so that it would be inadequate to require that margin requirements should be the same for trades performed on different trading venues and (iv) any step taken by LCH SwapClear to skew its margin requirement calculations (on a customer by customer basis) by introducing factors which have the visible effect of disadvantaging certain trading venues would constitute a severe breach of the anti-circumvention clause that has been introduced in paragraph 3 of the Final Commitments (in addition to being within the competence of the relevant financial regulator).

(2976) The Final OTC IRD Commitments do not include a requirement for the merged entity to offer OTC IRD clearing services on FRAND terms. The Commission considers that introducing such requirement is not necessary, because the theories of harm envisaged by the Commission in relation to the trading and clearing of OTC IRDs relate to customer strategies whose object would be to put LCH SwapClear in a position to offer enhanced or cheaper clearing services to customers of Tradeweb

(thus causing customers to switch away from the trading venues of Tradeweb's rivals). As such, the price-based theory of harm raised in this Decision in relation to the trading and clearing of OTC IRDs hinges on the possibility for LCH SwapClear to apply a discriminatory/preferential treatment to Tradeweb, and, ultimately its customers. A commitment to behave in a non-discriminatory fashion, in particular with respect to pricing, therefore appears sufficient to address this concern.

(2977) *Fourthly*, as regards more specifically the Initial Commitments' suitability and effectiveness in preventing LCH SwapClear from discriminating against Tradeweb's rivals by degrading the quality or imposing disadvantageous technical/operational requirements for trades executed on Tradeweb's rival venues or through middleware providers, the Commission considers that the extension of the minimum notice period in respect of the nature and timing of any upcoming changes to technical and operational requirements from one to three months, as well as the fact that the Final Commitments introduce an explicit obligation for LCH SwapClear to use its "*best efforts*" to provide these elements as early as possible (and at in any event no later than three months before such changes take effect), constitute significant improvements to the Initial Commitments, which are appropriate to address the concerns expressed by certain respondents to the Market Test. The Commission notes in this respect that (i) the duration of advance notice mentioned in the Final Commitments constitutes a minimum duration (with the Final Commitments now imposing a best effort obligation to provide these elements as early as possible) and (ii) these elements shall in any event be provided to all connected Trading Venues and MiddleWare Providers on the same day in the same format, and with the same degree of substance and the same level of cooperation, so that even if LCH SwapClear provided these elements with an unreasonably short notice (*e.g.* in view of the scope and complexity of the changes that need to be implemented), this would prove detrimental to all connected Trading Venues and MiddleWare Providers to the same extent, and would not provide Tradeweb with any undue advantage of any sort (compared to Tradeweb's rivals).

(2978) The Commission considers as well that the clarification that *"service levels"* includes (but is not limited to) *"the time period within which LCH SwapClear will accept or not accept the OTC IRD trade for Clearing"* adds clarity and specificity to the wording of the Final Commitments by ensuring that market practice is appropriately reflected.

(2979) *Fifthly*, as regards more specifically the Initial Commitment's suitability and effectiveness in preventing LCH SwapClear from denying or degrading SwapClear's cooperation with trading venues of Tradeweb's rivals for the introduction of new products, the Commission considers that the additional wording[3619] constitutes a substantial improvement of the Final Commitments, which broadens their scope and prevents circumvention strategies, by setting a common standard in order to ensure that all Trading Venues and Middleware providers are treated on a non-discriminatory basis in respect of their propositions of new products when these require cooperation from LCH SwapClear.

[3619] That LCH SwapClear would commit to assess "*in good faith, under a best efforts obligation, and on a non-discriminatory basis, proposals from Trading Venues and Middleware Providers regarding new and enhanced products for Clearing, in particular by using the same analytical framework as applied to any proposals from Tradeweb*"

(2980) Moreover, requiring LCH SwapClear to use "*best efforts*" (instead of "*reasonable efforts*") to obtain consent from the holder of IP, confidentiality or other rights when such rights might prevent LCH SwapClear from cooperating with all Trading Venues on a non-discriminatory basis in relation to the introduction of new products constitutes a reinforcement of the scope of the Final Commitments and a strengthening of the conditions imposed on LSEG in this context.

(2981) With respect to innovation, the Commission assessed the comments by Bloomberg and Eurex reported in Section The Initial OTC IRD Commitments 5.3.2.3 above mentioning that LCH SwapClear could cooperate secretly for the introduction of new products, ahead of the day when rival Trading Venues are updated on the planned inovations or new product launches. The Commission nonetheless considers that the ring-fencing measures provided by the Initial Commitments should be sufficient to prevent such type of behaviour, because such behaviour would necessarily require the sharing of information between Tradeweb and LCH SwapClear, which would constitute a breach of the ring-fencing and firewall measures.[3620] At any rate, the ring-fencing measures provided by the Commitments have been substantially reinforced in the text of the Final Commitments. In a similar fashion, the "*volontary sharing of information*" between Tradeweb and LCH SwapClear refered to by JSCC is already prevented by the ring-fencing measures provided under the Initial OTC IRD Commitments.

(2982) As a result, the substantive sections of the Final OTC IRD Commitments reflect all comments raised by market participants in the course of the Market Test, except for the ones described in the recital above, where the Commission considers that no changes were required in view of the provisions already present in the Initial OTC IRD Commitments. As mentioned in recital (3038) above, the Commission considers that the Initial OTC IRD Commitments were already proportionate in their concept and the changes brought by the Final OTC IRD Commitments do not alter this analysis. The Commission has analysed in recitals (3026) to (3046) above the different improvements which were made to the Initial OTC IRD Commitments, and how these changes are appropriate to address the Commission's competition concerns in their entirety, to render the Final OTC IRD Commitments comprehensive from all points of view, and ensure a smooth and effective implementation of these commitments.

(2983) In conclusion, for the reasons above, the Commission considers that the Final Commitments with respect to OTC IRDs improve the Initial Commitments and address the Commission's competition concerns in their entirety, that they are comprehensive and effective from all points of view as well as proportionate to address the Commission's competition concerns.

3620 Paragraph 5 of the Initial Commitments provides that *"LSEG commits to establish appropriate ring-fencing and firewalls to ensure that Tradeweb does not obtain from LCH SwapClear any OTC IRD Clearing Services information about current and future (i) prices, (ii) technical, operational or service quality requirements, or (iii) innovation or new product launches, which other Trading Venues and Middleware Providers would not otherwise obtain at the same time. If Tradeweb obtains such information, it will be communicated to other Trading Venues and Middleware Providers simultaneously with the same level of cooperation."*

B. Monitoring trustee, arbitration and duration of the Final OTC IRD Commitments

(2984) As regards the role of the monitoring trustee, the fast-track dispute resolution mechanism and the arbitration procedure, the Commission considers that the provisions of the Final Commitments are capable of ensuring that the Final OTC IRD Commitments effectively eliminate the competition concerns relating to OTC IRDs entirely, are comprehensive and effective, proportionate, and capable of being implemented effectively within a short period of time. In particular, the Final OTC IRD Commitments introduces several improvements to the provisions relating to the Monitoring Trustee and the fast-track dispute resolution procedure of the Initial OTC IRD Commitments, which proved necessary in view of the comments received during the Market Test.

(2985) First, regarding the fast-track resolution mechanism, the Commission considers that the fast-track dispute resolution mechanism and the associated arbitration procedure provide sufficient safeguards for appropriate and timely resolution of disputes, thus ensuring that potential Complainant have access to a timely procedure for resolving any issue that may arise in relation to the implementation of the commitments. This is all the more necessary for OTC IRD tradind venues, in light of the potential irreversible damages that can be inflicted on their business in the event of a disruption of the market.

(2986) In addition the Notifying Party has significantly reduced its timeframe compared to the Initial OTC IRD, in line with what the market feedback deemed necessary. For instance, the date by which the Arbitral Tribunal should make a preliminary ruling if requested was brought forward by 2 weeks (ten working days instead of one month). With the same goal to prevent irreversible effects on competition and competitors in case of a potential breach of the OTC IRD commitments, LSEG has committed additionally to not "*suspend the access to its global OTC IRD Clearing Services to the Complainant until the date of the final award of the Arbitral Tribunal or, in case a preliminary ruling is requested, until the date of this preliminary ruling*", unless such access suspension is necessary for regulatory and/or risk management reasons. All these elements are intended to provide safeguards against disruptions to the market and irreversible damage being suffered by Complainants until the settlement of a dispute. To this effect, the improvements included in the Final Commitments are adequate in order to (i) make the settlement process as timely as possible and (ii) allow for interim measure to be taken so as to preserve the access to LCH SwapClear's clearing services for the duration of the dispute.

(2987) Moreover, the Final Commitments clarified that the Complainant's notice produced at the beginning of the dispute resolution mechanism is "*without prejudice to the possibility for the Complainant to submit additional evidence and documents during the course of the Arbitration Procedure.*", which aims at further protecting the Complainants' ability to argue and present evidence in the course of the Arbitration procedure. In this respect, the Final Commitments ensure a smooth implementation and further strengthen the effectiveness of the commitments.

(2988) The Commission also assessed JSCC's concern, reported in Section 5.3.2.3 above, that the fast-track dispute resolution mechanism, would prevent Complainants from taking legal actions in the jurisdiction of the local laws of the Complainant. The Commission however considers that, contrary to JSCC's understanding, the fast-track dispute resolution mechanism does not preclude Complainants from taking legal actions against LSEG. First of all, it can be recalled that the fast track dispute resolution mechanism's goal is to provide any Complainant with the possibility to

resolve any issue with LSEG's commercial strategies in a timely manner, before the potential impact of such commercial strategy has become irreversible (such as could be the case if LSEG would disrupt its connectivity between a Trading Venue where trade flows might not return to their original pattern if the disruption lasted for an material time given the important network effects characterising OTC IRD trading). Second, the Commission notes that the fast track dispute resolution mechanism is *"an additional option to the benefit of the Complainant and not an obligation for it"*.[3621] Third, the fact that the Arbitral Tribunal has reached a decision in a direction or the other does not prevent the Commission from taking action in the event of an established breach of the Final OTC IRD Commitments. Fourth, even when a final award has been delivered by the Arbitral Tribunal, Complainant's right to bring legal action against LSEG for another or additional breach of law remain unchanged. The arbitration procedure does not preclude the possibility of a litigation before local jurisdictions.

(2989) Second, regarding the provisions relating to the Monitoring Trustee, the Commission assessed the comment made by JSCC reported in Section 5.3.2.3 above regarding the independence of the Monitoring Trustee. The Commission notes first that it is incorrect that the Monitoring Trustee "*could be appointed solely by the discretion of LSEG*", given that (i) in all circumstances, the Monitoring Trustee has to be approved by the Commission and (ii) if the Commission rejects twice all of the Monitoring Trustees proposed by LSEG, the Commission shall nominate a Monitoring Trustee whom LSEG shall appoint. Moreover, given the Commission's long-standing experience of relying on independent Monitoring Trustees to monitor the parties' effective compliance with the commitments submitted to remedy competition concerns raised by the Commission, the issues raised by JSCC in that regard appear unfounded.

(2990) The Commission notes that the Final OTC IRD Commitments provide the Monitoring Trustee with genuine implementation powers in order to monitor the implementation of and compliance with the Commitments, to act as a contact point for any requests by third parties (and in particular potential Complainants) and to propose to LSEG such measures as the Monitoring Trustee considers necessary to ensure LSEG's compliance with the Commitments. The conditions imposed on the Monitoring Trustee as well as the appointment procedure for the Monitoring Trustee ensure that the Monitoring Trustee possesses the required independence from LSEG and is not exposed to any Conflict of Interest in the course of his mandate (as well as for one year after the Commitment Period ends). As a result, the Commission considers that the Monitoring Trustee's mandate is appropriate from all points of view in order to ensure the smooth and effective implementation of the commitments.

(2991) In view of the above, the Commission considers that conditions set out in the Final Commitments as regards the role of the monitoring trustee and the dispute resolution mechanism are sufficient to address the concerns identified in the results to the Market Test and will thus ensure the effective implementation and compliance with the Final Commitments.

(2992) Third, in view of the above and in line with the Market Test feedback, the Commission considers that the 10-year duration provided by the Initial Commitments in relation to OTC IRDs is appropriate and sufficient. As explained

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3621 OTC IRD Commitments, paragraph 26

more in details in Section 5.3.2.3.B above, market participants consider this duration to be sufficient, suggesting that in view of the pace of evolution of this market, ten years provides sufficient time for adaptation (including under the form of an adaptation of the clearing flows and clearing preferences of customers), as well as potential changes to the market structures (including under the form of innovation-driven changes and new entries).

(2993) The Commission considers that the Final Commitments are capable of being implemented effectively within a short period of time as they will become effective either immediately or shortly[3622] after the adoption of the Commission Decision.

(2994) In conclusion, for the reasons above, the Commission considers that the provisions of the Final Commitments in relation to the appointment and role of the Monitoring Trustee, the arbitration procedure and the duration of the Final Commitments with respect to OTC IRDs improve the Initial Commitments and ensure that the Final OTC IRD Commitments address the Commission's competition concerns.

5.4.2.4. Conclusion

(2995) In view of the above, the Commission concludes that the Final Commitments are capable of eliminating the Commission's competition concerns in their entirety, are comprehensive and proportionate and are capable of being implemented effectively within a short period of time. Moreover, they are proportionate to the competition concerns identified by the Commission.

6. CONCLUSION

(2996) In the light of the above, the Commission considers the Final Commitments capable of rendering the Transaction compatible with the internal market and the EEA Agreement as it will not create a significant impediment to effective competition in all relevant markets in which competition concerns were identified.

7. CONDITIONS AND OBLIGATIONS

(2997) Pursuant to the second subparagraph of Article 8(2) of the Merger Regulation, the Commission may attach to its decision conditions and obligations intended to ensure that the undertakings concerned comply with the commitments they have entered into vis-à-vis the Commission with a view to rendering the concentration compatible with the internal market.

(2998) The fulfilment of the measure that gives rise to the structural change of the market is a condition, whereas the implementing steps which are necessary to achieve this result are generally obligations on the parties. Where a condition is not fulfilled, the Commission's decision declaring the concentration compatible with the internal market is no longer applicable. Where the undertakings concerned commit a breach of an obligation, the Commission may revoke the clearance decision in accordance with Article 8(6) of the Merger Regulation. The undertakings concerned may also be subject to fines and periodic penalty payments under Articles 14(2) and 15(1) of the Merger Regulation.

(2999) In accordance with the basic distinction described in Recital (3063) as regards conditions and obligations, this Decision should be made conditional on the full compliance by the Notifying Party with Section B of the Borsa Italiana Divestment

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3622 In view of the short time frame allowed for the designation of the Monitoring Trustee.

Commitments (including the Schedule), whereas all other Sections of the Borsa Italiana Divestment Commitments, all the Sections of the Final OTC IRD Commitments and all the Sections of the Final Information Services Commitments should be obligations within the meaning of Article 8(2) of the Merger Regulation. The full text of the Final Commitments is attached as Annexes I (the Borsa Italiana Divestment Commitments), II (the Final OTC IRD Commitments) and III (the Final Information Services Commitments) to this Decision and forms an integral part thereof.

HAS ADOPTED THIS DECISION:

Article 1

The notified operation whereby London Stock Exchange Group plc acquires sole control of Refinitiv Business within the meaning of Article 3(1)(b) of the Merger Regulation is hereby declared compatible with the internal market and the EEA Agreement.

Article 2

Article 1 of this Decision is subject to compliance with the conditions set out in Section B of Annex I (including the Schedule of Annex I).

Article 3

London Stock Exchange Group plc shall comply with the obligations set out in Sections A, C, D, E, F, and G of Annex I, and all of the obligations set out in Annex II, and Annex III.

Article 4

This Decision is addressed to:

London Stock Exchange Group plc
10 Paternoster Square
EC4M 7LS – London
United Kingdom

Done at Brussels, 13.1.2021

For the Commission

(Signed)
Margrethe VESTAGER
Executive Vice-President

London Stock Exchange Group PLC

Proposed acquisition of

Refinitiv

COMMITMENTS TO THE EUROPEAN COMMISSION SUBMITTED PURSUANT TO COUNCIL REGULATION (EC) NO. 139/2004

Commitments in relation to the divestment of Borsa Italiana S.p.A.

submitted by

London Stock Exchange Group plc

on

4 November 2020

COMP / M.9564

LSEG / REFINITIV BUSINESS

Pursuant to Article 8(2) of Council Regulation (EC) No 139/2004 (the "***Merger Regulation***"), London Stock Exchange Group plc ("***LSEG***" or the "***Notifying Party***") hereby enters into the following Commitments (the "***Commitments***") vis-à-vis the European Commission (the "***Commission***") with a view to rendering the acquisition by LSEG of sole control over the Refinitiv business ("***Refinitiv***", together with LSEG, the "***Parties***") (the "***Concentration***") compatible with the internal market and the functioning of the EEA Agreement.

This text shall be interpreted in light of the Commission's decision pursuant to Article 8(2) of the Merger Regulation to declare the Concentration compatible with the internal market and the functioning of the EEA Agreement (the "***Decision***"), in the general framework of European Union law, in particular in light of the Merger Regulation, and by reference to the Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (the "***Remedies Notice***").

Section A. Definitions

1. For the purpose of the Commitments, the following terms shall have the following meaning:

Affiliated Undertakings: undertakings controlled by the Parties, whereby the notion of control shall be interpreted pursuant to Article 3 of the Merger Regulation and in light of the Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings (the "***Consolidated Jurisdictional Notice***").

Assets: the assets that contribute to the current operation or are necessary to ensure the viability and competitiveness of the Divestment Business as indicated in Section B, paragraph 5 (a), (b) and (c) and described more in detail in the Schedule.

BIt Market Services: BIt Market Services S.p.A., incorporated under the laws of Italy with its registered office at Piazza degli Affari 6, 20123, Milan, Lombardia, Italy and registered with the Italian Business Register under number 06695270964.

Borsa Italiana: Borsa Italiana S.p.A., incorporated under the laws of Italy with its registered office at Piazza degli Affari 6, 20123, Milan, Lombardia, Italy and registered with the Italian Business Register under number 12066470159.

Borsa Italiana Group: Borsa Italiana and its subsidiaries.

Closing: the transfer of the legal title to the Divestment Business to the Purchaser.

Closing Period: […], and no later than [duration] months from the approval of the Purchaser and the terms of sale by the Commission.

Confidential Information: any business secrets, know-how, commercial information, or any other competitively sensitive information of a proprietary nature that is not in the public domain.

Conflict of Interest: any conflict of interest that impairs the Monitoring Trustee's objectivity and independence in discharging its duties under the Commitments.

Divestment Business: the business or businesses as defined in Section B and in the Schedule which the Notifying Party commits to divest.

Effective Date: the date of adoption of the Decision.

Euronext: Euronext N.V., incorporated under the laws of the Netherlands with its registered office at Beursplein 5, 1012 JW Amsterdam, the Netherlands and registered at the Dutch Chamber of Commerce under number 60234520.

GATElab: Gatelab S.r.l., incorporated under the laws of Italy with its registered office at Via dei Pentri, 161, 86170, Isernia, Italy and registered with the Italian Business Register under number 00333030948.

Hold Separate Manager: the person appointed by LSEG for the Divestment Business to manage the day-to-day business under the supervision of the Monitoring Trustee.

Key Personnel: all personnel necessary to maintain the viability and competitiveness of the Divestment Business, as listed in the Schedule, including the Hold Separate Manager.

LSEG: London Stock Exchange Group plc, incorporated under the laws of England and Wales with its registered office at 10 Paternoster Square, London, EC4M 7LS, United Kingdom and registered with the Commercial/Company Register at Companies House under number 05369106.

LSEG Italia: London Stock Exchange Group Holdings Italia S.p.A., incorporated under the laws of Italy with its registered office at Piazza degli Affari 6, 20123, Milan, Lombardia, Italy and registered with the Italian Business Register under number 0818226096.

Monitoring Trustee: one or more natural or legal person(s) who is/are approved by the Commission and appointed by LSEG, and who has/have the duty to monitor LSEG's compliance with the conditions and obligations attached to the Decision.

Parties: the Notifying Party and the undertaking that is the target of the concentration.

Personnel: all staff currently employed by or wholly or mainly assigned to the Divestment Business, including staff seconded to the Divestment Business and shared personnel.

Purchaser: the entity approved by the Commission as acquirer of the Divestment Business in accordance with the criteria set out in Section D.

Purchaser Criteria: the criteria laid down in paragraph 12 of these Commitments that the Purchaser must fulfil in order to be approved by the Commission.

Schedule: the schedule to these Commitments describing more in detail the Divestment Business.

Section B. The commitment to divest and the Divestment Business

Commitment to divest

2. In order to maintain effective competition, LSEG commits to divest the Divestment Business to Euronext pursuant to the final binding sale and purchase agreement for the sale of the Divestment Business between LSEG and Euronext dated 9 October 2020 (the "***SPA***").

3. The Notifying Party shall be deemed to have complied with this commitment if the Closing of the sale of the Divestment Business to Euronext takes place within the Closing Period.

4. In order to maintain the structural effect of the Commitments, the Notifying Party shall, for a period of 10 years after Closing, not acquire, whether directly or indirectly, the possibility of exercising influence (as defined in paragraph 43 of the Remedies Notice, footnote 3) over the whole or part of the Divestment Business, unless, following the submission of a reasoned request from the Notifying Party showing good cause and accompanied by a report from the Monitoring Trustee (as provided in paragraph 34 of these Commitments), the Commission finds that the structure of the market has changed to such an extent that the absence of influence over the Divestment Business is no longer necessary to render the Concentration compatible with the internal market.

Structure and definition of the Divestment Business

5. The Divestment Business consists of the Borsa Italiana Group, as well as the BIt Market Services and GATELab businesses. The legal and functional structure of the Divestment Business as operated to date is described in the Schedule. The Divestment Business, described in more detail in the Schedule, includes all assets and staff that contribute to the current operation or are necessary to ensure the viability and competitiveness of the Divestment Business, in particular:

   (a) all tangible and intangible assets (including intellectual property rights);

   (b) all licences, permits and authorisations issued by any governmental organisation for the benefit of the Divestment Business;

   (c) all contracts, leases, commitments and customer orders of the Divestment Business; all customer, credit and other records of the Divestment Business; and

   (d) the Personnel.

6. In addition, the Divestment Business includes the benefit, for a transitional period of up to two years (subject to possible extensions in respect of certain services at Euronext's request for up to 9 months in total) after Closing and on terms and conditions equivalent to those at present afforded to the Divestment Business, of current arrangements under which LSEG or its Affiliated Undertakings supply services to the Divestment Business, as detailed in the Schedule, and agreed with Euronext in the separation framework agreement between SSC Global Business Services Limited ("***SSC***"), a LSEG subsidiary, and Borsa Italiana dated 13 October 2020 (the "***Separation Framework Agreement***"). Strict firewall procedures will be adopted so as to ensure that any confidential or competitively sensitive information related to the Divestment Business, or arising

from the supply arrangements set out in the Separation Framework Agreement will not be shared with, or passed on to, anyone outside the operations of SSC (and any other Affiliated Undertaking of LSEG providing services to the Divestment Business).

Section C. Related commitments

Preservation of viability, marketability and competitiveness

7. From the Effective Date until Closing, the Notifying Party shall preserve or procure the preservation of the economic viability, marketability and competitiveness of the Divestment Business, in accordance with good business practice, the terms of the SPA and the Separation Framework Agreement, and shall minimise as far as possible any risk of loss of competitive potential of the Divestment Business. In particular LSEG undertakes:

   (a) not to carry out any action that might have a significant adverse impact on the value, management or competitiveness of the Divestment Business or that might alter the nature and scope of activity, or the industrial or commercial strategy or the investment policy of the Divestment Business;

   (b) to make available, or procure to make available, sufficient resources for the development of the Divestment Business, on the basis and continuation of the existing business plans;

   (c) to take all reasonable steps, or procure that all reasonable steps are being taken, including appropriate incentive schemes (based on industry practice and consistent with past practice), to encourage all Key Personnel to remain with the Divestment Business, and, save as described in paragraph 3(b) of the Schedule, not to solicit or move any Personnel to LSEG's remaining businesses. Where, nevertheless, individual members of the Key Personnel exceptionally leave the Divestment Business, LSEG shall provide a reasoned proposal to replace the person or persons concerned to the Commission and the Monitoring Trustee. LSEG must be able to demonstrate to the Commission that the replacement is well suited to carry out the functions exercised by those individual members of the Key Personnel. The replacement shall take place under the supervision of the Monitoring Trustee, who shall report to the Commission.

Hold-separate obligations

8. Unless explicitly permitted under these Commitments, and subject to: (i) the undertakings set out in Schedule 1 of the SPA; (ii) SSC's and Borsa Italiana's contractual obligations under the Separation Framework Agreement (including in relation to the provision of transitional services and the separation of the Divestment Business to Euronext); (iii) the need for management or staff involvement to provide intra-group and transitional services required for the Divestment Business' current operations and ongoing viability;[1] and (iv) the limited number of Personnel that will be transferred to LSEG pre-Closing and *vice versa*,[2] the Notifying Party commits, from the Effective

[1] See Section 5.5 of the Form RM for a description of these services.

[2] See paragraph 3(b) of the Schedule for the limited number of Personnel who are employed by the Divestment Business but who are solely dedicated to the retained LSEG business and accordingly, will be

Date until Closing, to keep the Divestment Business separate from the businesses it is retaining and to ensure that: (i) management and staff of the businesses retained by LSEG have no involvement in the Divestment Business; and (ii) the Key Personnel and Personnel of the Divestment Business have no involvement in any business retained by LSEG and do not report to any individual outside the Divestment Business.

9. Until Closing, LSEG shall assist the Monitoring Trustee in ensuring that the Divestment Business is managed in accordance with the terms of these Commitments as a distinct and saleable entity separate from the businesses which LSEG is retaining. Immediately after the adoption of the Decision, LSEG shall appoint a Hold Separate Manager. The Hold Separate Manager, who shall be part of the Key Personnel, shall manage the Divestment Business independently and in the best interest of the business with a view to ensuring its continued economic viability, marketability and competitiveness and its independence from the businesses retained by LSEG. The Hold Separate Manager shall closely cooperate with and report to the Monitoring Trustee. Any replacement of the Hold Separate Manager shall be subject to the procedure laid down in paragraph 7(c) of these Commitments. The Commission may, after having heard LSEG, require LSEG to replace the Hold Separate Manager.

Ring-fencing

10. The Notifying Party shall implement, or procure to implement, all necessary measures to ensure that it does not, after the Effective Date, obtain any Confidential Information relating to the Divestment Business and that any such Confidential Information obtained by LSEG before the Effective Date will be eliminated as soon as reasonably practicable and no longer than six weeks after the Effective Date and not be used by LSEG. This includes measures vis-à-vis LSEG's appointees on the supervisory board and/or board of directors of the Divestment Business. In particular, the participation of the Divestment Business in any central information technology network shall be severed to the extent possible, without compromising the viability of the Divestment Business. LSEG may obtain or keep information relating to the Divestment Business which is (i) reasonably necessary for the divestiture of the Divestment Business (including in accordance with the transitional arrangements under the Separation Framework Agreement); (ii) reasonably required to maintain the viability of the Divestment Business; or (iii) the disclosure of which to LSEG is required by law.

Non-solicitation clause

11. The Notifying Party undertakes, subject to customary limitations, not to solicit, and to procure that Affiliated Undertakings do not solicit, the Key Personnel transferred with the Divestment Business for a period of 24 months after Closing.

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transferred to LSEG pre-Closing so that they can continue their existing roles/responsibilities. In addition, a limited number of Personnel will be technically employed by LSEG as at the Effective Date, but their employment will be transferred to the Divestment Business pre-Closing. They will thus not be retained by LSEG.

Section D. The Purchaser

12. In order to be approved by the Commission, the Purchaser must fulfil the following criteria:
    (a) The Purchaser shall be independent of and unconnected to the Parties and their Affiliated Undertakings (this being assessed having regard to the situation following the divestiture).
    (b) The Purchaser shall have the financial resources, proven expertise and incentive to maintain and develop the Divestment Business as a viable and active competitive force in competition with the Parties and other competitors;
    (c) The acquisition of the Divestment Business by the Purchaser must neither be likely to create, in light of the information available to the Commission, *prima facie* competition concerns nor give rise to a risk that the implementation of the Commitments will be delayed. In particular, the Purchaser must reasonably be expected to obtain all necessary approvals from the relevant regulatory authorities for the acquisition of the Divestment Business.

13. The SPA relating to the divestment of the Divestment Business is conditional on the Commission's approval. LSEG shall submit a fully documented and reasoned proposal, including a copy of the final agreement(s), to the Commission and the Monitoring Trustee. LSEG must be able to demonstrate to the Commission that the purchaser fulfils the Purchaser Criteria and that the Divestment Business is being sold in a manner consistent with the Commission's Decision and the Commitments. For the approval, the Commission shall verify that the purchaser fulfils the Purchaser Criteria and that the Divestment Business is being sold in a manner consistent with the Commitments including their objective to bring about a lasting structural change in the market. The Commission may approve the sale of the Divestment Business without one or more Assets or parts of the Personnel, or by substituting one or more Assets or parts of the Personnel with one or more different assets or different personnel, if this does not affect the viability and competitiveness of the Divestment Business after the sale, taking account of the proposed purchaser.

Section E. Monitoring Trustee

I. Appointment procedure

14. LSEG shall appoint a Monitoring Trustee to carry out the functions specified in these Commitments for a Monitoring Trustee. The Notifying Party commits not to close the Concentration before the appointment of a Monitoring Trustee.

15. The Monitoring Trustee shall:
    (i) at the time of appointment, be independent of the Notifying Party and its Affiliated Undertakings;
    (ii) possess the necessary qualifications to carry out its mandate, for example have sufficient relevant experience as an investment banker or consultant or auditor; and
    (iii) neither have nor become exposed to a Conflict of Interest.

16. The Monitoring Trustee shall be remunerated by the Notifying Party in a way that does not impede the independent and effective fulfilment of its mandate.

Proposal by LSEG

17. No later than two weeks after the Effective Date, LSEG shall submit the name or names of one or more natural or legal persons whom LSEG proposes to appoint as the Monitoring Trustee to the Commission for approval. The proposal shall contain sufficient information for the Commission to verify that the person or persons proposed as Monitoring Trustee fulfil the requirements set out in paragraph 15 and shall include:

    (a) the full terms of the proposed mandate, which shall include all provisions necessary to enable the Monitoring Trustee to fulfil its duties under these Commitments; and

    (b) the outline of a work plan which describes how the Monitoring Trustee intends to carry out its assigned tasks.

Approval or rejection by the Commission

18. The Commission shall have the discretion to approve or reject the proposed Monitoring Trustee(s) and to approve the proposed mandate subject to any modifications it deems necessary for the Monitoring Trustee to fulfil its obligations. If only one name is approved, LSEG shall appoint or cause to be appointed the person or persons concerned as Monitoring Trustee, in accordance with the mandate approved by the Commission. If more than one name is approved, LSEG shall be free to choose the Monitoring Trustee to be appointed from among the names approved. The Monitoring Trustee shall be appointed within one week of the Commission's approval, in accordance with the mandate approved by the Commission.

New proposal by LSEG

19. If all the proposed Monitoring Trustees are rejected, LSEG shall submit the names of at least two more natural or legal persons within one week of being informed of the rejection, in accordance with paragraphs 14 and 18 of these Commitments.

Monitoring Trustee nominated by the Commission

20. If all further proposed Monitoring Trustees are rejected by the Commission, the Commission shall nominate a Monitoring Trustee, whom LSEG shall appoint, or cause to be appointed, in accordance with a trustee mandate approved by the Commission.

II. Functions of the Monitoring Trustee

21. The Monitoring Trustee shall assume its specified duties and obligations in order to ensure compliance with the Commitments. The Commission may, on its own initiative or at the request of the Monitoring Trustee or LSEG, give any orders or instructions to the Monitoring Trustee in order to ensure compliance with the conditions and obligations attached to the Decision.

Duties and obligations of the Monitoring Trustee

22. The Monitoring Trustee shall:

(i) propose in its first report to the Commission a detailed work plan describing how it intends to monitor compliance with the obligations and conditions attached to the Decision.

(ii) oversee, in close co-operation with the Hold Separate Manager, the on-going management of the Divestment Business with a view to ensuring its continued economic viability, marketability and competitiveness and monitor compliance by the Notifying Party with the conditions and obligations attached to the Decision. To that end the Monitoring Trustee shall:

(a) monitor the preservation of the economic viability, marketability and competitiveness of the Divestment Business, and the keeping separate of the Divestment Business from the businesses retained by the Notifying Party, in accordance with paragraphs 7 and 8 of these Commitments;

(b) supervise the management of the Divestment Business as a distinct and saleable entity, in accordance with paragraph 9 of these Commitments;

(c) with respect to Confidential Information:

- determine all necessary measures to ensure that LSEG does not after the Effective Date obtain any Confidential Information relating to the Divestment Business,
- in particular, strive for the severing of the Divestment Business' participation in a central information technology network to the extent possible, without compromising the viability of the Divestment Business,
- make sure that any Confidential Information relating to the Divestment Business obtained by LSEG before the Effective Date is eliminated and will not be used by LSEG and
- decide whether such information may be disclosed to or kept by LSEG as the disclosure is reasonably necessary to allow LSEG to carry out the divestiture or as the disclosure is required by a legal or regulatory obligation or as otherwise agreed with the Monitoring Trustee;

(d) monitor the splitting of assets and the allocation of Personnel between the Divestment Business and LSEG or Affiliated Undertakings;

(iii) propose to the Notifying Party such measures as the Monitoring Trustee considers necessary to ensure the Notifying Party's compliance with the conditions and obligations attached to the Decision, in particular the maintenance of the full economic viability, marketability or competitiveness of the Divestment Business, the holding separate of the Divestment Business and the non-disclosure of competitively sensitive information;

(iv) provide to the Commission, sending the Notifying Party a non-confidential copy at the same time, a written report within 15 days after the end of every month that shall cover the operation and management of the Divestment Business as well as the splitting of assets

and the allocation of Personnel so that the Commission can assess whether the business is held in a manner consistent with the Commitments;

(v) promptly report in writing to the Commission, sending the Notifying Party a non-confidential copy at the same time, if it concludes on reasonable grounds that the Notifying Party is failing to comply with these Commitments;

(vi) within one week after receipt of the documented proposal referred to in paragraph 13 of these Commitments, submit to the Commission, sending the Notifying Party a non-confidential copy at the same time, a reasoned opinion as to the suitability and independence of the proposed purchaser and the viability of the Divestment Business after the Sale and as to whether the Divestment Business is sold in a manner consistent with the conditions and obligations attached to the Decision, in particular, if relevant, whether the Sale of the Divestment Business without one or more Assets or not all of the Personnel affects the viability of the Divestment Business after the sale, taking account of the proposed purchaser;

(vii) assume the other functions assigned to the Monitoring Trustee under the conditions and obligations attached to the Decision.

III. Duties and obligations of the Notifying Party

23. The Notifying Party shall provide and shall cause its advisors to provide the Monitoring Trustee with all such co-operation, assistance and information as the Monitoring Trustee may reasonably require to perform its tasks. The Monitoring Trustee shall have full and complete access to any of LSEG's or the Divestment Business' books, records, documents, management or other personnel, facilities, sites and technical information necessary for fulfilling its duties under the Commitments and the Notifying Party and the Divestment Business shall provide the Monitoring Trustee upon request with copies of any document. The Notifying Party and the Divestment Business shall make available to the Monitoring Trustee one or more offices on their premises and shall be available for meetings in order to provide the Monitoring Trustee with all information necessary for the performance of its tasks.

24. The Notifying Party shall provide the Monitoring Trustee with all managerial and administrative support that it may reasonably request on behalf of the management of the Divestment Business. This shall include all administrative support functions relating to the Divestment Business which are currently carried out at headquarters level. The Notifying Party shall provide and shall cause its advisors to provide the Monitoring Trustee, on request, with the information submitted to Euronext, in particular give the Monitoring Trustee access to the data room documentation and all other information granted to Euronext in the due diligence procedure.

25. The Notifying Party shall indemnify the Monitoring Trustee and its employees and agents (each an "***Indemnified Party***") and hold each Indemnified Party harmless against, and hereby agrees that an Indemnified Party shall have no liability to the Notifying Party for, any liabilities arising out of the performance of the Monitoring Trustee's duties under the Commitments, except to the extent that such liabilities result from the wilful default, recklessness, gross negligence or bad faith of the Monitoring Trustee, its employees, agents or advisors.

26. At the expense of the Notifying Party, the Monitoring Trustee may appoint advisors (in particular for corporate finance or legal advice), subject to the Notifying Party's approval (this approval not to be unreasonably withheld or delayed) if the Monitoring Trustee considers the appointment of such advisors necessary or appropriate for the performance of its duties and obligations under the Mandate, provided that any fees and other expenses incurred by the Monitoring Trustee are reasonable. Should the Notifying Party refuse to approve the advisors proposed by the Monitoring Trustee the Commission may approve the appointment of such advisors instead, after having heard the Notifying Party. Only the Monitoring Trustee shall be entitled to issue instructions to the advisors. Paragraph 25 of these Commitments shall apply *mutatis mutandis*.

27. The Notifying Party agrees that the Commission may share Confidential Information proprietary to the Notifying Party with the Monitoring Trustee. The Monitoring Trustee shall not disclose such information and the principles contained in Article 17 (1) and (2) of the Merger Regulation apply *mutatis mutandis*.

28. The Notifying Party agrees that the contact details of the Monitoring Trustee are published on the website of the Commission's Directorate-General for Competition and it shall inform interested third parties of the identity and the tasks of the Monitoring Trustee.

29. For a period of 10 years from the Effective Date the Commission may request all information from the Notifying Party that is reasonably necessary to monitor the effective implementation of these Commitments.

IV. Replacement, discharge and reappointment of the Monitoring Trustee

30. If the Monitoring Trustee ceases to perform its functions under the Commitments or for any other good cause, including the exposure of the Monitoring Trustee to a Conflict of Interest:

    (a) the Commission may, after hearing the Monitoring Trustee and the Notifying Party, require the Notifying Party to replace the Monitoring Trustee; or

    (b) The Notifying Party may, with the prior approval of the Commission, replace the Monitoring Trustee.

31. If the Monitoring Trustee is removed according to paragraph 30 of these Commitments, the Monitoring Trustee may be required to continue in its function until a new Monitoring Trustee is in place to whom the Monitoring Trustee has effected a full hand over of all relevant information. The new Monitoring Trustee shall be appointed in accordance with the procedure referred to in paragraphs 14-20 of these Commitments.

32. Unless removed according to paragraph 30 of these Commitments, the Monitoring Trustee shall cease to act as Monitoring Trustee only after the Commission has discharged it from its duties after all the Commitments with which the Monitoring Trustee has been entrusted have been implemented. However, the Commission may at any time require the reappointment of the Monitoring Trustee if it subsequently appears that the relevant remedies might not have been fully and properly implemented.

Section F. The review clause

33. The Commission may extend the time periods foreseen in the Commitments in response to a request from the Notifying Party or, in appropriate cases, on its own initiative. Where the Notifying Party requests an extension of a time period, it shall submit a reasoned request to the Commission no later than one month before the expiry of that period, showing good cause**.** This request shall be accompanied by a report from the Monitoring Trustee, who shall, at the same time send a non-confidential copy of the report to the Notifying Party. Only in exceptional circumstances shall the Notifying Party be entitled to request an extension within the last month of any period.

34. The Commission may further, in response to a reasoned request from the Notifying Party showing good cause waive, modify or substitute, in exceptional circumstances, one or more of the undertakings in these Commitments. This request shall be accompanied by a report from the Monitoring Trustee, who shall, at the same time send a non-confidential copy of the report to the Notifying Party. The request shall not have the effect of suspending the application of the undertakings and, in particular, of suspending the expiry of any time period in which the undertakings have to be complied with.

Section G. Entry into force

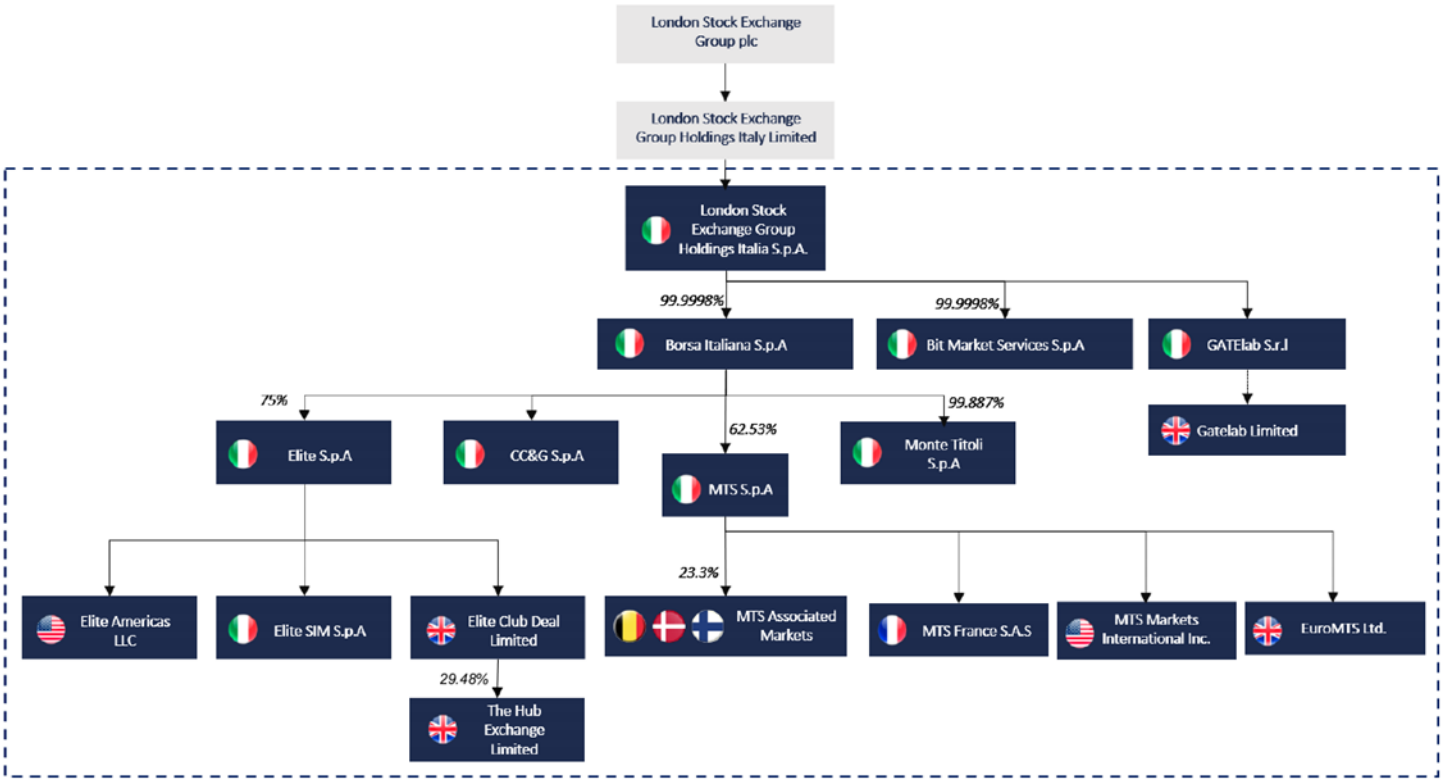
35. The Commitments shall take effect upon the date of adoption of the Decision.

SCHEDULE

1. The Divestment Business as operated to date has the following legal and functional structure:

- Borsa Italiana S.p.A. is incorporated in Italy, with its registered with its registered office at Piazza degli Affari 6, 20123, Milan, Lombardia.
- LSEG Italia holds 99.998% of the shares in Borsa Italiana. The remaining shares in Borsa Italiana are held by […]. These legacy minority shareholders have no pre-emption rights or tag-along rights in relation to the proposed sale, nor do they have any involvement in the operation of the Borsa Italiana Group.
- BIt Market Services S.p.A. is incorporated in Italy, with its registered office at Piazza degli Affari 6, 20123, Milan, Lombardia. LSEG Italia holds 99.998% of the shares in BIt Market Services.
- GATElab S.r.l. is incorporated in Italy, with its registered office at Via dei Pentri, 161, 86170, Isernia, Italy. GATElab is 100% owned by LSEG Italia.
- LSEG is the ultimate parent of the Divestment Business and owns 100% of the shares in LSEG Italia.
- The Divestment Business employs approximately 750 full-time employees, with the majority based in Italy.

The Divestment Business is structured as follows:



= *Divestment Business perimeter. Entities are 100% owned unless otherwise stated.*

2. In accordance with paragraph 5 of these Commitments, the Divestment Business (consisting of the Borsa Italiana Group, as well as the BIt Market Services and GATELab businesses) includes all assets that contribute to the current operation or are necessary to ensure the viability and competitiveness of the Divestment Business (with the exception of the exhaustive list of non-essential items provided at paragraph 3 below). This includes, but is not limited to:

(a) all main tangible assets, including IT hardware and office equipment;

(b) the following main intangible assets:

- the 'Borsa Italiana', 'MTS', 'EuroMTS', 'BondVision' 'CC&G', 'Monte Titoli S.p.A.', 'ETFplus', 'IDEM', 'MIB', 'X-TRM', 'GateLab' and 'ELITE' brands;
- domain names for the Divestment Business' websites, including the 'borsaitaliana.it', 'ccg.it', 'montetitoli.it', 'mtsmarkets.com', 'elite-network.com' and 'bitmarketservices.com' domain names;
- copies of instances of certain platform software currently owned by LSEG or its Affiliated Undertakings that is used by both LSEG and the Divestment Business, including LSEG's Master Data Management System and […] platform;

(c) the following main licences, permits and authorisations:

- all necessary regulatory authorisations to operate CC&G, Monte Titoli, all regulated markets and trading venues operated by the Divestment Business;
- the following perpetual, royalty-free licences of intellectual property rights that are or will be granted by LSEG or its relevant Affiliated Undertaking to Borsa Italiana pursuant to the Separation Framework Agreement:

  (i) a licence to use copyright owned by LSEG or its Affiliated Undertakings in websites hosted at the domain names that transfer to Borsa Italiana under the Separation Framework Agreement (as described at paragraph 2(b) above);
  (ii) a licence to use LSEG's Master Data Management System and […] platform (subject to, in relation to the licence relating to the […] platform, the Divestment Business entering into a new licence with […] for the relevant software (as described at paragraph 2(d) below);
  (iii) a licence to use intellectual property rights owned by LSEG or its Affiliated Undertakings in other software instances currently used by the Divestment Business, including LSEG's […] software, and any LSEG software application used regularly by the Divestment Business in its capital markets or other core businesses in the 12 months before the date of the Separation Framework Agreement;
  (iv) a licence to use intellectual property rights owned by LSEG or its Affiliated Undertakings in materials used in the Divestment Business' 'Academy' business;

(d) the following main contracts, agreements, leases, commitments and understandings:

- clearing contracts with [clearing houses/trading venues];
- all key customer agreements entered into between the Divestment Business and its members / customers, related customer records and existing market rules;
- all key supply agreements entered into between the Divestment Business and its suppliers, including in relation to the supply of key technology and related services;
- all leases for the offices used by the Borsa Italiana Group in Milan, Rome and Isernia;
- the following existing arm's length agreements between LSEG or its Affiliated Undertakings (on one hand) and the Divestment Business (on the other hand), which will remain in force following Closing under the Separation Framework Agreement:

(i) agreements under which [affiliate of LSEG's retained business] provides clearing services to [the Divestment Business];
(ii) an agreement under which [affiliate of LSEG's retained business] provides clearing services to [the Divestment Business];
(iii) an agreement under which receives access to [a platform belonging to the Divestment Business] from [affiliates of LSEG's retained business][…];
(iv) an agreement under which [affiliate of LSEG's retained business] receives access to […]from [the Divestment Business];
(v) an agreement under which [the Divestment Business] licenses software and data from [affiliate of LSEG's retained business];
(vi) transaction reporting services licence agreement between [affiliate of LSEG's retained business] and [the Divestment Business][…];
(vii) a derived data licence between [the Divestment Business] and [affiliate of LSEG's retained business] ; and
(viii) an interoperability agreement between CC&G and LCH SA;

- the following shared third-party agreements that will either be separated between LSEG and its Affiliated Undertakings (on one hand) and the Divestment Business (on the other hand), and third party agreements that will be novated to or entered into by the Divestment Business, under the Separation Framework Agreement:

(i) the […] relating to the […];
(ii) the […].;
(iii) the […];
(iv) any customer agreements to which both LSEG or an Affiliated Undertaking (on one hand) and the Divestment Business (on the other hand) are parties under which the customer is provided with exchange data; and
(v) a new agreement between the Divestment Business and […] (managed by […]) to replace the Divestment Business' reliance on […];

(e) all customer, credit and other records;

(f) all Personnel employed by or wholly or mainly assigned to the Divestment Business (with the exception of 10 non-essential employees referred to in paragraph 3(b) below);

(g) the following Key Personnel:

- [Name] – CEO (Borsa Italiana)
- [Name] – CFO, Capital Markets (Borsa Italiana) and Head of Finance Italy
- [Name] – Capital Markets Italy and CIO (Borsa Italiana)
- [Name] – Head of Legal Italy (Borsa Italiana)
- [Name] – Global Head of Fixed Income (Borsa Italiana)
- [Name] – Head of Italy Equity Markets (Borsa Italiana)
- [Name] – Head of Equity Primary Markets Italy (Borsa Italiana)
- [Name] – Head of Equity Market Listing (Borsa Italiana)
- [Name] – Head of Derivatives Markets and Commodities (Borsa Italiana)
- [Name] – Head of Real Time Data (Borsa Italiana)
- [Name] – Head of Global Buy-Side & Market Analysis and Italy Regulation (Borsa Italiana)

- [Name] – Head of Market Supervision (Borsa Italiana)
- [Name] – Head of Listed Companies Supervision (Borsa Italiana)
- [Name] – Head of Client Technology Services (Borsa Italiana)
- [Name] – Market Operations Italy Manager (Borsa Italiana)
- [Name] – Managing Director, HR, Capital Markets & Italy
- [Name] – CEO (MTS; EuroMTS)
- [Name] – CEO (Elite)
- [Name] – CEO and General Manager (CC&G)
- [Name] – CEO and General Manager (Monte Titoli)
- [Name] – CIO of Post Trade Italy and CTO (Monte Titoli); and

(h) the arrangements for the supply with the following services by or on behalf of SSC Global Business Services Limited for a transitional period of up to 24 months in respect of certain services (subject to possible extensions in respect of certain services at Euronext's request for up to 9 months in total) after Closing: intra-group services currently provided by LSEG or its Affiliated Undertakings to the Divestment Business. The Divestment Business will be provided with transitional services (including for general corporate technology services and IT support services) by or on behalf of SSC Global Business Services Limited, a LSEG subsidiary, under the Separation Framework Agreement.

3. The Divestment Business shall not include:

(a) the following LSEG brands currently used by the Divestment Business:

(i) 'LSEG';
(ii) 'AIM Italia'; and
(iii) 'NOMAD' and 'Nominated Adviser'.

These brands will remain with LSEG and, accordingly, the Divestment Business will cease using these brands after Closing, following a short run-off period of 6 months (subject, in respect of the[...] and […] brands only, to a possible extension of up to […] months where regulatory approval to rebrand has not been obtained by the end of the initial […] month run-off period) to enable Euronext to rebrand to its own brands.

(b) 10 employees who are as a technical and legal matter employed by the Divestment Business (for historical reasons), but have no responsibilities relating to the operation of any part of the Divestment Business and are solely dedicated to the retained LSEG business. Accordingly, their employment will be transferred to LSEG pre-Closing so that they can continue their existing roles/responsibilities, all of which are unrelated to the operation of the Divestment Business. The names and roles of these 10 employees are provided below:

- [Name] – Manager, CFD Product Development (R&D
- [Name] – CFD Product Development (R&D)
- [Name] – CFD Product Development (R&D)
- [Name] – CFD Product Development (R&D)
- [Name] – Product Manager, Capital Markets Technology (R&D)
- [Name] – UK Products (Corporate Data Warehouse)

- [Name] – Senior Developer, Software Development (Corporate Data Warehouse)
- [Name] – Analyst, Application Management (CRM)
- [Name] – Technical Relationship Manager, Business and Technical Analyst
- [Name] – Head of Global Business Development and Market Infrastructure Sales

4. If there is any asset or personnel which is not be covered by paragraph 2 of this Schedule but which is both used (exclusively or not) in the Divestment Business and necessary for the continued viability and competitiveness of the Divestment Business, that asset or adequate substitute will be offered to Euronext.

London Stock Exchange Group PLC

Proposed acquisition of

Refinitiv

COMMITMENTS TO THE EUROPEAN COMMISSION SUBMITTED PURSUANT TO COUNCIL REGULATION (EC) NO. 139/2004

Commitments in relation to
LSEG Real-time Venue Data, FTSE Russell UK Equity Indices,
WM/R FX Benchmarks

submitted by

London Stock Exchange Group plc and Refinitiv

on

26 November 2020

COMP / M.9564

LSEG / REFINITIV BUSINESS

Pursuant to Article 8(2) of Council Regulation (EC) No 139/2004 (the "***Merger Regulation***"), London Stock Exchange Group plc ("***LSEG***" or the "***Notifying Party***") – and, where applicable, the Refinitiv business ("***Refinitiv***") – hereby enter into the following Commitments (the "***IS Commitments***") vis-à-vis the European Commission (the "***Commission***") with a view to rendering the acquisition by LSEG of sole control over Refinitiv (together with LSEG the "***Parties***") (the "***Transaction***") compatible with the internal market and the functioning of the EEA Agreement.

This text shall be interpreted in light of the Commission's decision pursuant to Article 8(2) of the Merger Regulation to declare the Transaction compatible with the internal market and the functioning of the EEA Agreement (the "***Decision***"), in the general framework of European Union law, in particular in light of the Merger Regulation, and by reference to the Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (the "***Remedies Notice***").

Section A. Definitions

1. For the purpose of the Commitments, the following terms shall have the following meaning:

Affiliated Undertakings means undertakings controlled by the Parties and/or by the ultimate parents of the Parties, whereby the notion of control shall be interpreted pursuant to Article 3 of the Merger Regulation and in light of the Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings;

Best efforts obligations shall be interpreted in light of the Commission's decision pursuant to Article 8(2) of the Merger Regulation to declare the Concentration compatible with the internal market and the functioning of the EEA Agreement, the Merger Regulation and the general principles of EU law. Any interpretation that may be given to this term under the law of other jurisdictions is not relevant solely for the purpose of interpreting and/or implementing the Commitments;

Closing means closing of the Transaction whereby LSEG acquires sole control of Refinitiv;

Combined Entity means LSEG after Closing of the Transaction;

Complainant means any Third Party Data Vendor or WM/R Customer which has submitted a written complaint that LSEG is not complying with these IS Commitments;

Commitment Period means ten years from the date of the Decision;

Confidential Information means any business secrets, know-how, commercial information, or any other information of a proprietary nature that is not in the public domain;

Conflict of Interest means any conflict of interest that could impair the Monitoring Trustee's objectivity and independence in discharging its duties under the IS Commitments;

Connectivity Product means an LSEG connectivity product through which a Third Party Data Vendor may elect to receive LSE RTD from LSEG pursuant to a Connectivity Product Subscription Agreement (currently, exchange hosting or customer managed connectivity services) or any successor LSEG connectivity product providing substantially the same service in relation to LSE RTD which can be used by Third Party Data Vendors for the provision of Consolidated Real-Time Datafeeds and Desktop Services to End Customers (subject to appropriate licensing under the RTMDA);

Connectivity Product Subscription Agreement means the applicable subscription agreement (as amended from time to time) or any successor agreement covering substantially the same content pursuant to which LSEG offers a Connectivity Product through which a Third Party Data Vendor may elect to receive LSE RTD;

Consolidated Real-Time Datafeed means a real-time market datafeed aggregated from multiple sources, and which applies a level of data normalisation and a common data model and is often enhanced by the vendor with value-added derived information or supplemented by value-added content from sources other than the originating source (e.g. an exchange). This defined term does not include real-time direct datafeeds originating from the market data source;

Data Delivery Infrastructure means the applicable data distribution system and any successor system providing substantially the same service that is owned or controlled by LSEG through which real time FTSER UK Equity Indices or end-of-day FTSER UK Equity Indices are distributed;

Data Dissemination Infrastructure means all physical infrastructure owned or controlled by LSEG within or in the proximity of the LSE Data Centre through which LSE RTD generated from the LSE Matching Engine is disseminated (currently, the Group Ticker Plant). In this regard, Data Dissemination Infrastructure includes any successor system that is owned or controlled by LSEG which provides substantially the same service in relation to LSE RTD;

***De Facto* Failure** means an excessive change in pricing terms or other change in commercial terms (including the introduction of new use cases) which amounts to a failure by the Combined Entity to supply LSE Venue Data, FTSER UK Equity Indices or WM/R FX Benchmarks to Third Party Data Vendors or WM/R Customers, as applicable in paragraphs 2, 11, and 20, respectively. In determining whether there has been an excessive change in pricing terms or other commercial terms (including the introduction of new use cases) such as to amount to such a failure to supply LSE Venue Data, FTSER UK Equity Indices or WM/R FX Benchmarks, all relevant factors shall be taken into account, which shall include (to the extent relevant in any given case):

(i) the price or terms (or change in price or terms) offered by LSEG to Third Party Data Vendors or End Customers (as the case may be) and Refinitiv to WM/R Customers immediately prior to the Transaction (taking into account applicable measures of inflation since the Transaction); and/or

(ii) the price or terms (or change in price or terms) offered by the Combined Entity to other Third Party Data Vendors or End Customers (as the case may be) and WM/R Customers, at the relevant time; and/or

(iii) the prices and terms of comparable offerings by other providers in a comparable situation with respect to comparable customers at the relevant time, to the extent such comparators exist; having regard, in particular, to the quality and commercial proposition – in isolation or in combination with other products and services – and customer usage of such offerings; and/or

(iv) for LSE Venue Data, any relevant guidance provided by ESMA and/or the Courts of the European Union regarding pricing on a reasonable commercial basis to the extent applicable in any given case.

Decision means approval by the Commission of the Transaction under Council Regulation (EC) NO 139/2004;

Effective Date means the date of adoption of the Decision;

End Customer means an end customer of a Third Party Data Vendor;

European Union Courts means the Court of Justice of the European Union and the General Court of the European Union;

FTSE Russell means FTSE International Limited a company incorporated and registered in England with company number 03108236 whose registered address is at 10 Paternoster Square, London, EC4M 7LS, United Kingdom, and any successor who is the legal owner of intellectual property and other rights in and associated with the FTSER UK Equity Indices;

FTSE Russell Index Licensing Agreement means an agreement for the redistribution of FTSER UK Equity Indices or any successor agreement covering substantially the same content. For the avoidance of doubt, FTSE Russell Index Licensing Agreement also includes any applicable legacy redistribution agreements still in existence (which includes the FTSE International Limited Index Values Distribution Agreement and the FTSE International Limited Master Information Services Agreement);

FTSER UK Equity Indices means real-time and/or end-of-day FTSE Russell UK equity indices (including related content such as membership constituent data and historical data) that are either set out in the Appendix in the format(s) available via Third Party Data Vendors as at the Effective Date or any successor products that follow substantially the same methodology for the weighting and the selection of their components as one of the indices identified in the Appendix, in each case other than indices that have been prepared or tailored for a particular customer;

FTSER UK Equity Indices Commitment means the Commitment set out in Section B.II.;

IS Commitments means the LSE Venue Data Commitment, the FTSER UK Equity Indices Commitment, LSEG Restricted Customer Information Commitment and the WM/R FX Benchmarks Commitment;

LSE means the London Stock Exchange;

LSE Data Centre means the data centre facility operated by LSEG where the Data Dissemination Infrastructure is located and from where the Connectivity Products are operated;

LSE Matching Engine means Millennium Exchange, the LSEG owned and operated trading execution platform (and any successor platform providing substantially the same service);

LSE NRTD means existing and future LSE non-real time venue data products;

LSE RTD means existing and future LSE real-time venue data products included in the RTMDA;

LSE Venue Data means LSE RTD and LSE NRTD;

LSE Venue Data Commitment means the Commitment set out in Section B.I.;

LSEG means the London Stock Exchange Group plc.;

LSEG Indices Licensing Agreement means the applicable licensing agreement (as amended from time to time) or any equivalent or successor agreement pursuant to which LSEG makes available FTSE Russell index data (and includes the FTSE Russell Index Licensing Agreement);

LSEG Index Data means the FTSE Russell index data products licensed to a Third Party Data Vendor or End Customer pursuant to a LSEG Indices Licensing Agreement;

LSEG Restricted Customer Information Commitment means the Commitment set out in Section B.III.;

LSEG Venue Data means the venue data licensed to a Third Party Data Vendor or End Customer pursuant to a LSEG Venue Data Licensing Agreement;

LSEG Venue Data Licensing Agreement means the applicable licensing agreement (as amended from time to time) or any equivalent or successor agreement pursuant to which LSEG makes available venue data generated from LSE, CurveGlobal or Turquoise, so long as owned and operated by LSEG (and includes the RTMDA). For the avoidance of doubt, this excludes Connectivity Products;

Monitoring Trustee means one or more natural or legal person(s) who is/are approved by the Commission and appointed by LSEG, and who has/have the duty to monitor LSEG's compliance with the conditions and obligations attached to the Decision;

Packaged Desktop Service means any commercial offering which entitles a customer to individual use of market data content in addition to the use of an associated software package. In this context, a 'software package' is a collection of applications that perform tasks in support of human-led decisions in professional capital markets-related job roles, irrespective of delivery method;

Refinitiv means the Refinitiv business which, after Closing, shall be controlled by LSEG;

Relevant Business means Refinitiv's Consolidated Real-Time Datafeeds business and/or Refinitiv's Packaged Desktop Services business which, after Closing, shall be controlled by LSEG or any successor business of the Combined Entity that provides Consolidated Real-Time Datafeeds and/or Packaged Desktop Services;

Restricted Customer Information means data charge declarations from Third Party Data Vendors and data audit reports related to Third Party Data Vendors pursuant to the LSEG Venue Data Licensing Agreement and/or the LSEG Indices Licensing Agreement (and in each case, any successor arrangements providing for the provision of substantially similar information) which set out relevant End Customer information (***Data Charge and Data Audit Declarations***). Restricted Customer Information shall also include entitlement requests from Third Party Data Vendors relating to a new End Customer licence for LSE Venue Data or FTSER UK Equity Indices sent to the appropriate team as designated by FTSE Russell for such entitlements. For the avoidance of doubt, Restricted Customer Information in each such respect does not include information sourced from such Data Charge and Data Audit Declarations or entitlement requests that has been anonymised or aggregated so as to remove the identity of the End Customer and / or the identity of the Third Party Data Vendor through which the End Customer accesses LSEG Venue Data or LSEG Index Data, provided that one or other of the removed identity cannot be discerned by other means;

RTMDA means Real Time Market Data Agreement as published on LSEG's website as at the Effective Date (as amended from time to time) or any equivalent or successor agreement for the licensing of LSE RTD;

Technical Upgrades means, with respect to a Connectivity Product, changes that are made to the technology and infrastructure supporting the Connectivity Product;

Third Party Data Vendor means other than the Relevant Businesses, existing and future providers of: (i) Consolidated Real-Time Datafeeds and/or (ii) Packaged Desktop Services;

WM/R FX Benchmarks Commitment means the Commitment set out in Section B.IV.;

WM/R Customers means all existing and future customers that access or will in the future make a request to access WM/R FX Benchmarks for index licensing purposes;

WM/R FX Benchmarks means all existing WM/R FX benchmarks/rates offered by Refinitiv as set out in the WM/R Methodology, their successor products and WM/R FX benchmarks/rates of a similar nature offered by the Combined Entity in the future;

WM/R Methodology means the WM/Reuters FX Benchmarks methodology guide as published on Refinitiv's website and updated from time to time.

Section B. IS Commitments

I. LSE Venue Data Commitment

2. LSEG commits to make LSE Venue Data available to Third Party Data Vendors for all use cases for which LSE Venue Data are or will be made available to the Relevant Business. For the avoidance of doubt this commitment:

   (a) includes an undertaking to ensure that the pricing terms that are applied to LSE Venue Data in respect of either Third Party Data Vendors or End Customers shall not be changed in such a way as to constitute a *De Facto* Failure to make LSE Venue Data available to Third Party Data Vendors that currently access or in the future make a request to access LSE Venue Data; and

   (b) in order to ensure that the Monitoring Trustee is able to verify and address any complaints in respect of LSEG's compliance with this paragraph 2, LSEG shall provide to the Monitoring Trustee at his/her request (i) relevant evidence of any change to the price of LSE Venue Data or the terms on which LSE Venue Data is made available (including the addition of new use cases) and (ii) the reasons for any such change. If this information is required for the preparation of the Monitoring Trustee's proposal foreseen in paragraph 43, LSEG commits to provide the information without undue delay and in any event in such time as to allow the Monitoring Trustee to comply with the deadline of paragraph 43.

3. LSEG commits not to degrade the quality of LSE RTD generated from the LSE Matching Engine in any way that would negatively impact the quality of LSE RTD made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business. This shall include but is not limited to degradation by LSEG of the Matching Engine in such a manner as would negatively impact the latency or format of the LSE RTD delivered to End Customers (to the extent that such impact is solely caused by LSEG degrading the LSE Matching Engine). In this regard, LSEG commits that any notification of a change or update that would impact the way LSE RTD is generated from the LSE Matching Engine (or any instruction regarding the implementation of such a change or update) will be made to all customers (including Third Party Data Vendors) at the same time as the Relevant Business.

4. To the extent the existing LSE Matching Engine is upgraded or replaced with an alternative, LSEG further commits that this alternative will be made available to Third Party Data Vendors and the Relevant Business in accordance with paragraph 3 above. In this regard, LSEG commits that:

   (a) such alternative will not be developed or implemented in such a way as to negatively impact the quality of access to LSE RTD by Third Party Data Vendors as relative to the quality provided by LSEG to the Relevant Business; and

   (b) any notification of a change or update that would impact the way LSE RTD is generated from the LSE Matching Engine (or any instruction regarding the implementation of such a change or update) will be made in accordance with LSEG's existing practice of notifying such change or update (or any instruction regarding the implementation of such a change or update) to all customers (including Third Party Data Vendors) at the same time as the Relevant Business.

5. LSEG commits:

   (a) in respect of LSE RTD, not to degrade the Data Dissemination Infrastructure in any way that would negatively impact the quality of LSE RTD made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business. This shall include but is not limited to degradation by LSEG of the Data Dissemination Infrastructure in such a manner as would negatively impact the latency or format of the LSE RTD delivered to End Customers (to the extent that such impact is solely caused by LSEG degrading the Data Dissemination Infrastructure). In this regard, LSEG commits that any notification of a change or update to the Data Dissemination Infrastructure (or any instruction regarding the implementation of such a change or update) will be made to all customers (including Third Party Data Vendors) at the same time as the Relevant Business. For the avoidance of doubt, this Commitment includes an undertaking to ensure that applications required to operate the Data Dissemination Infrastructure are not degraded or altered in such a way that would negatively impact the quality of LSE RTD (by way of latency or content) made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business;

   (b) in respect of LSE NRTD, not to degrade the delivery of LSE NRTD in any way that would negatively impact the quality of LSE NRTD made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business. This shall include but is not limited to the timing of the delivery of LSE NRTD and any change to the format of LSE NRTD. In this regard, LSEG commits that any notification of a change or update to the delivery of LSE NRTD (or any instruction regarding the implementation of such a change or update) will be made to all customers (including Third Party Data Vendors) at the same time as the Relevant Business.

6. To the extent LSEG's existing Data Dissemination Infrastructure (in respect of LSE RTD) is upgraded or replaced with an alternative or the delivery of LSE NRTD is upgraded or replaced with an alternative, LSEG further commits that this alternative will be made available to Third Party Data Vendors and the Relevant Business in accordance with paragraph 5 above. In this regard, LSEG commits that:

   (a) such alternative will not be developed or implemented in such a way as to negatively impact the quality of access by Third Party Data Vendors as relative to the quality provided by LSEG to the Relevant Business; and

   (b) any notification of a change or update (or any instruction regarding the implementation of such a change or update) will be made, in accordance with LSEG's existing practice of notifying such change or update (or any instruction regarding the implementation of such a change or update) to all customers (including Third Party Data Vendors) at the same time as the Relevant Business.

   LSEG shall ensure that this provision will continue to apply *mutatis mutandis* in the event LSEG outsources the operations of the Data Dissemination Infrastructure (in respect of LSE RTD) or delivery of LSE NRTD to a third party.

7. LSEG commits to make available to Third Party Data Vendors all Connectivity Products used by the Relevant Business. LSEG commits not to degrade Connectivity Products in any way that would negatively impact the quality of LSE RTD made

available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business (including but not limited to Technical Upgrades), provided that the Third Party Data Vendor and the Relevant Business use the same Connectivity Product. This shall include but is not limited to degradation by LSEG of the Connectivity Product that it provides to Third Party Data Vendors (and is also used by the Relevant Business) in such a manner as would negatively impact the latency of the LSE RTD delivered to End Customers (to the extent that such impact is solely caused by LSEG degrading the relevant Connectivity Product). In this regard, LSEG commits that:

(a) any notification of a change or update to the Connectivity Products (or any instruction regarding the implementation of such a change or update) will be made to all customers (including Third Party Data Vendors) at the same time as the Relevant Business (provided that the Third Party Data Vendor and the Relevant Business use the same Connectivity Product); and

(b) any notification of a relocation concerning the LSE Data Centre will be made to all customers (including Third Party Data Vendors) at the same time as the Relevant Business (provided that the Third Party Data Vendor and the Relevant Business use the same Connectivity Product).

8. To the extent that existing Connectivity Products are upgraded or replaced with an alternative, LSEG further commits that this alternative will be made available to Third Party Data Vendors and the Relevant Business in accordance with paragraph 7 above. In this regard, LSEG commits that:

(a) such alternative will not be developed or implemented in such a way as to negatively impact the quality of LSE RTD made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business, provided that the Third Party Data Vendor and the Relevant Business use the same Connectivity Product; and

(b) any notification of a change or update to the Connectivity Products (or any instruction regarding the implementation of such a change or update) will be made, in accordance with LSEG's existing practice of notifying such change or update (or any instruction regarding the implementation of such a change or update) to all customers (including Third Party Data Vendors) at the same time as the Relevant Business (provided that the Third Party Data Vendor and the Relevant Business use the same Connectivity Product).

9. For the avoidance of doubt, paragraphs 3 to 8 shall apply to existing and new Third Party Data Vendors. In addition:

(a) LSEG shall ensure that a request or application by new Third Party Data Vendors for Connectivity Products pursuant to the Connectivity Product Subscription Agreement will be given the same level of priority offered to the Relevant Business (i.e. complied with within the minimum amount of time that is reasonably feasible) provided that the Relevant Business is also a customer of the same Connectivity Product and the requirements pursuant to the Connectivity Product Subscription Agreement are met (it being understood that any such requirements shall not be designed to favour the Relevant Business over other Third Party Data Vendors).

(b) Paragraph 9(a) shall apply *mutatis mutandis* for existing Third Party Data Vendors wishing to change their selected Connectivity Product.

(c) LSEG shall not degrade the level of after-sales and incident resolution support that it offers to Third Party Data Vendors in any way that would negatively impact the quality of LSE Venue Data made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business.

10. LSEG commits:

(a) not to reclassify or redefine LSE Venue Data in a manner that would undermine the efficacy of the LSE Venue Data Commitment; and

(b) to negotiate with Third Party Data Vendors in relation to any future contract regarding access to LSE Venue Data in good faith.

II FTSER UK Equity Indices Commitment

11. LSEG commits to make FTSER UK Equity Indices available to Third Party Data Vendors that currently access or in the future make a request to access FTSER UK Equity Indices pursuant to the FTSE Russell Index Licensing Agreement for all use cases for which FTSER UK Equity Indices are or will be made available to the Relevant Business. For the avoidance of doubt this commitment:

(a) includes an undertaking to ensure that the pricing terms that are applied to FTSER UK Equity Indices in respect of either Third Party Data Vendors or End Customers shall not be changed in such a way as to constitute a *De Facto* Failure to make FTSER UK Equity Indices available to Third Party Data Vendors that currently access or in the future make a request to access FTSER UK Equity Indices; and

(b) in order to ensure that the Monitoring Trustee is able to verify and address any complaints in respect of LSEG's compliance with this paragraph 11, LSEG shall provide to the Monitoring Trustee at his/her request (i) relevant evidence of any change to the price of FTSER UK Equity Indices or the terms on which FTSER UK Equity Indices is made available (including the addition of new use cases) and (ii) the reasons for any such change. If this information is required for the preparation of the Monitoring Trustee's proposal foreseen in paragraph 43, LSEG commits to provide the information without undue delay and in any event in such time as to allow the Monitoring Trustee to comply with the deadline of paragraph 43.

12. LSEG commits:

(a) in respect of real-time FTSER UK Equity Indices, not to degrade the quality of FTSER UK Equity Indices made available via the Data Delivery Infrastructure relative to the quality provided by LSEG to the Relevant Business. This shall include but is not limited to degradation by LSEG of the Data Delivery Infrastructure in such a manner as would negatively impact the latency or format of the real-time FTSER UK Equity Indices delivered to End Customers (to the extent that such impact is solely caused by LSEG degrading the Data Delivery Infrastructure). In this regard, LSEG commits that any notification of a change or update to the Data Delivery Infrastructure (or any instruction regarding the implementation of such a change or update) will be made to all

customers (including Third Party Data Vendors) at the same time as the Relevant Business;

(b) in respect of end-of-day FTSER UK Equity Indices, not to degrade the quality of FTSER UK Equity Indices made available via the Data Delivery Infrastructure relative to the quality provided by LSEG to the Relevant Business. This shall include but is not limited to the timing of the delivery of and any change to the format of end-of-day FTSER UK Equity Indices distributed via the Data Delivery Infrastructure. In this regard, LSEG commits that any notification of a change or update to the Data Delivery Infrastructure (or any instruction regarding the implementation of such a change or update) will be made to all customers (including Third Party Data Vendors) at the same time as the Relevant Business.

13. LSEG commits not to degrade the Data Delivery Infrastructure in any way that would negatively impact the quality of FTSER UK Equities Indices made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business. In this regard, LSEG commits that Third Party Data Vendors and the Relevant Business will have equivalent connection channels to receive FTSER UK Equity Indices distributed via the Data Delivery Infrastructure.

14. To the extent Data Delivery Infrastructure is upgraded or replaced with an alternative, LSEG commits that this alternative will be made available to Third Party Data Vendors and the Relevant Business in accordance with paragraphs 12 and 13 above. In this regard, LSEG commits that:

(a) such alternative will not be developed or implemented in such a way as to negatively impact the quality of access by Third Party Data Vendors relative to the quality offered to the Relevant Business; and

(b) any notification of a change or update to the Data Delivery Infrastructure (or any instruction regarding the implementation of such a change or update) will be made, in accordance with LSEG's existing practice of notifying such change or update (or any instruction regarding the implementation of such a change or update) to all customers (including Third Party Data Vendors) at the same time as the Relevant Business.

LSEG shall ensure that this provision will continue to apply *mutatis mutandis* in the event LSEG outsources the operations of the Data Delivery Infrastructure to a third party.

15. For the avoidance of doubt, paragraphs 12 to 14 shall apply to existing and new Third Party Data Vendors that access or request to access FTSER UK Equity Indices.

(a) LSEG shall ensure that a new Third Party Data Vendor will, subject to the positive outcome of applicable technical testing, be issued with relevant permissioning or credentials and be enabled to access FTSER UK Equity Indices at the same level of priority (i.e. complied with within the minimum amount of time that is reasonably feasible) as the service offered to the Relevant Businesses.

(b) This provision shall apply *mutatis mutandis* for existing Third Party Data Vendors wishing to obtain additional permissioning.

(c) LSEG shall not degrade the level of after-sales and incident resolution support that it offers to Third Party Data Vendors in any way that would negatively impact the quality of FTSER UK Equity Indices made available to Third Party Data Vendors relative to the quality provided by LSEG to the Relevant Business.

16. LSEG commits:

(a) not to reclassify or redefine FTSER UK Equity Indices in a manner that would undermine the efficacy of the FTSER UK Equity Indices Commitment; and

(b) to negotiate with Third Party Data Vendors in any future contract regarding access to FTSER UK Equity Indices in good faith.

III. LSEG Restricted Customer Information Commitment

17. Subject to paragraph 19 below, LSEG commits to maintain an information barrier between: (i) personnel within the Combined Entity with access to Restricted Customer Information; and (ii) the Relevant Business, to ensure that the Relevant Business is not able to access Restricted Customer Information.

18. For the purposes of discharging its obligations in paragraph 17 above, LSEG commits that it shall implement, or procure to implement, the measures listed below:

(a) the signing of non-disclosure agreements by personnel with access to Restricted Customer Information (such non-disclosure agreements to be in a form to be submitted to the Monitoring Trustee within 10 working days of the Effective Date). Restricted Customer Information shall be used only by personnel that have signed these non-disclosure agreements;

(b) personnel with access to Restricted Customer Information shall receive relevant information and training regarding the importance of the information barrier;

(c) ensuring Restricted Customer Information is separately stored on an IT workspace or network which prevents the accessing of Restricted Customer Information by the Relevant Business in breach of the LSEG Restricted Customer Information Commitment;

(d) incorporate compliance with the abovementioned measures into the LSEG compliance framework.

19. Where necessary for the purpose of addressing, evaluating or responding to any regulatory or legal matter – including contractual or other disputes with any Third Party Data Vendor or End Customer, as the case may be – Restricted Customer Information may be provided to senior management of the Relevant Business or any regulatory, legal, compliance or other corporate, non-business functions (or any equivalent team(s) assuming such a function in the future) of the Relevant Business, provided that:

(a) such Restricted Customer Information shall be used only for the purposes of such regulatory or legal matter and in any event not for the sales or marketing purposes in the Relevant Businesses; and

(b) the provisions set out in paragraph 18(a)-18(d) shall apply *mutatis mutandis* as between: (i) those accessing Restricted Customer Information pursuant to this paragraph 19; and (ii) other personnel of the Relevant Business.

IV. WM/R FX Benchmarks Commitment

20. LSEG – and, during the period between the Effective Date and the date of Closing, Refinitiv – commits to make WM/R FX Benchmarks available to WM/R Customers that currently access or in the future make a request to access WM/R FX Benchmarks for index licensing purposes. For the avoidance of doubt, this commitment:

(a) includes an undertaking to ensure that the pricing terms that are applied to WM/R FX Benchmarks shall not be changed in such a way as to constitute a *De Facto* Failure to make WM/R FX Benchmarks available to WM/R Customers that currently access or in the future make a request to access WM/R FX Benchmarks for index licensing purposes;

(b) in order to ensure that the Monitoring Trustee is able to verify and address any complaints in respect of LSEG's compliance with this paragraph 20, LSEG shall provide relevant evidence in accordance with the reporting periods under paragraph 30(e) to the Monitoring Trustee of any change to the price of WM/R FX Benchmarks made available to WM/R Customers for index licensing purposes or the terms on which WM/R FX Benchmarks are made available to WM/R Customers for index licensing purposes (including the addition of new use cases) and sets out the reasons for any such change.

21. LSEG – and, during the period between the Effective Date and the date of Closing, Refinitiv – commits:

(a) not to reclassify or redefine WM/R FX Benchmarks in a manner that would undermine the efficacy of the WM/R FX Benchmarks Commitment; and

(b) to deal with WM/R Customers in relation to any future contracts regarding access to WM/R FX Benchmarks for index licensing purposes in good faith.

Section C. Monitoring Trustee

I. Appointment procedure

22. LSEG shall appoint a Monitoring Trustee to carry out the functions specified in these Commitments for a Monitoring Trustee.

23. The Monitoring Trustee shall:

(a) at the time of appointment, be independent of the Parties and their Affiliated Undertakings;

(b) possess the necessary qualifications to carry out its mandate, for example have sufficient relevant experience; and

(c) neither have nor become exposed to a Conflict of Interest during the Commitment Period and for one year after the Commitment Period ends.

24. The Monitoring Trustee shall be remunerated by LSEG in a way that does not impede the independent and effective fulfilment of its mandate.

Proposal by LSEG

25. No later than two weeks after the Effective Date, LSEG shall submit the name or names of one or more natural or legal persons whom LSEG proposes to appoint as the Monitoring Trustee to the Commission for approval. The proposal shall contain sufficient information for the Commission to verify that the person or persons proposed as Monitoring Trustee fulfil the requirements set out in paragraph 23 and shall include:

    (a) the full terms of the proposed mandate, which shall include all provisions necessary to enable the Monitoring Trustee to fulfil its duties under these Commitments; and

    (b) the outline of a work plan which describes how the Monitoring Trustee intends to carry out its assigned tasks.

Approval or rejection by the Commission

26. The Commission shall have the discretion to approve or reject the proposed Monitoring Trustee and to approve the proposed mandate subject to any modifications it deems necessary for the Monitoring Trustee to fulfil its obligations. If only one name is approved, LSEG shall appoint or cause to be appointed the person or persons concerned as Monitoring Trustee, in accordance with the mandate approved by the Commission. If more than one name is approved, LSEG shall be free to choose the Monitoring Trustee to be appointed from among the names approved. The Monitoring Trustee shall be appointed within one week of the Commission's approval, in accordance with the mandate approved by the Commission.

New proposal by LSEG

27. If all the proposed Monitoring Trustees are rejected, LSEG shall submit the names of at least two more natural or legal persons within one week of being informed of the rejection, in accordance with paragraphs 22-26 of these Commitments.

Trustee nominated by the Commission

28. If all further proposed Trustees are rejected by the Commission, the Commission shall nominate a Monitoring Trustee, whom LSEG shall appoint, or cause to be appointed, in accordance with a trustee mandate approved by the Commission.

II. Functions of the Monitoring Trustee

29. The Monitoring Trustee shall assume its specified duties and obligations in order to ensure compliance with the IS Commitments. The Commission may, on its own initiative or at the request of the Monitoring Trustee or LSEG, give any orders or instructions to the Monitoring Trustee in order to ensure compliance with the conditions and obligations attached to the Decision.

30. The Monitoring Trustee shall:

    (a) propose in its first report to the Commission a detailed work plan describing how it intends to monitor compliance with the obligations and conditions attached to the Decision;

    (b) monitor the implementation of and compliance with the IS Commitments, by LSEG, as set out in Section B above;

(c) act as a contact point for any requests by third parties in relation to the IS Commitments;

(d) propose to LSEG such measures as the Monitoring Trustee considers necessary to ensure LSEG's compliance with the IS Commitments;

(e) provide to the Commission, sending LSEG a non-confidential copy at the same time, a written report regarding the compliance by LSEG with the IS Commitments within 15 days after the end of every reporting period, each period being: (i) one month for the first six months post-Closing; (ii) three months for the remainder of the first two years; (iii) six months in years three and four; and (iv) 12 months for the remainder of the Commitment Period. The Commission can amend the frequency of these reports after consulting with the Monitoring Trustee;

(f) promptly report in writing to the Commission, sending LSEG a non-confidential copy at the same time, if it concludes on reasonable grounds that LSEG is failing to comply with the IS Commitments; and

(g) assume the other functions assigned to the Monitoring Trustee under the conditions and obligations attached to the Decision.

III. Duties and obligations of LSEG

31. LSEG shall provide and shall cause its advisors to provide the Monitoring Trustee with all such co-operation, assistance and information as the Monitoring Trustee may reasonably require to perform its tasks.

32. The Monitoring Trustee shall have full and complete access to any of LSEG's books, records, documents, management or other personnel, facilities, sites and technical information necessary for fulfilling its duties under the Commitments, and LSEG shall provide the Monitoring Trustee upon request with copies of any document. LSEG shall make available to the Monitoring Trustee one or more offices on their premises and shall be available for meetings in order to provide the Monitoring Trustee with all information necessary for the performance of its tasks.

33. LSEG shall indemnify the Monitoring Trustee and its employees and agents (each an ***Indemnified Party***) and hold each Indemnified Party harmless against, and hereby agrees that an Indemnified Party shall have no liability to LSEG for, any liabilities arising out of the performance of the Monitoring Trustee's duties under the Commitments, except to the extent that such liabilities result from the wilful default, recklessness, gross negligence or bad faith of the Monitoring Trustee, its employees, agents or advisors.

34. At the expense of LSEG, the Monitoring Trustee may appoint advisors (in particular for corporate finance or legal advice), subject to LSEG's approval (this approval not to be unreasonably withheld or delayed) if the Monitoring Trustee considers the appointment of such advisors necessary or appropriate for the performance of its duties and obligations under the mandate, provided that any fees and other expenses incurred by the Monitoring Trustee are reasonable. Should LSEG refuse to approve the advisors proposed by the Monitoring Trustee the Commission may approve the appointment of such advisors instead, after having heard LSEG. Only the Monitoring Trustee shall be entitled to issue instructions to the advisors. Paragraph 33 of these Commitments shall apply *mutatis mutandis*.

35. LSEG agrees that the Commission may share Confidential Information proprietary to LSEG with the Monitoring Trustee. The Monitoring Trustee shall not disclose such information and the principles contained in Article 17(1) and (2) of the Merger Regulation apply *mutatis mutandis*.

36. LSEG agrees that the contact details of the Monitoring Trustee are published on the website of the Commission's Directorate-General for Competition and they shall inform interested third parties of the identity and the tasks of the Monitoring Trustee.

37. For a period of ten years from the Effective Date the Commission may request all information from LSEG that is reasonably necessary to monitor the effective implementation of these Commitments.

IV. Replacement, discharge and reappointment of the Monitoring Trustee

38. If the Monitoring Trustee ceases to perform its functions under the Commitments or for any other good cause, including the exposure of the Trustee to a Conflict of Interest:

    (a) the Commission may, after hearing the Monitoring Trustee and LSEG, require LSEG to replace the Monitoring Trustee; or

    (b) LSEG may, with the prior approval of the Commission, replace the Monitoring Trustee.

39. If the Monitoring Trustee is removed according to paragraph 38 of these Commitments, the Monitoring Trustee may be required to continue in its function until a new Monitoring Trustee is in place to whom the Monitoring Trustee has effected a full hand over of all relevant information. The new Monitoring Trustee shall be appointed in accordance with the procedure referred to in paragraphs 22-28 of these Commitments.

40. Unless removed according to paragraph 38 of these Commitments, the Monitoring Trustee shall cease to act as Monitoring Trustee only after the Commission has discharged it from its duties after all the Commitments with which the Monitoring Trustee has been entrusted have been implemented. However, the Commission may at any time require the reappointment of the Monitoring Trustee if it subsequently appears that the relevant remedies might not have been fully and properly implemented.

Section D. Fast-track dispute resolution procedure

41. In the event that a Complainant has reason to believe that LSEG has failed to comply with its obligations as set out in these Commitments, the fast-track dispute resolution procedure as described in this section will apply. Such fast-track dispute resolution mechanism will be an additional option to the benefit of the Complainant and not an obligation for it. LSEG commits not to suspend access to its LSE Venue Data, FTSER UK Equity Indices and/or WM/R FX Benchmarks to the Complainant until the date of the final award of the Arbitral Tribunal or, in case a preliminary ruling is requested, until the date of this preliminary ruling (unless in each case such access suspension is necessary for legal, regulatory and/or risk management reasons or is otherwise permitted pursuant to a determination by the Monitoring Trustee).

42. If the Complainant wishes to avail itself of the fast-track dispute resolution procedure, it shall send a written request to LSEG (with a copy to the Monitoring Trustee) setting out in detail the reasons leading that party to believe that LSEG is failing to comply with the requirements of these Commitments. The Complainant and LSEG will use best efforts to resolve all differences of opinion and to settle all disputes that may arise through co-operation and consultation within a reasonable period of time not exceeding 15 working days after receipt of the request.

43. The Monitoring Trustee shall be prepared, if requested, to facilitate the settlement of the dispute and shall present its own proposal (the ***Trustee Proposal***) for resolving the dispute, specifying in writing the action, if any, to be taken by LSEG in order to ensure compliance with the IS Commitments *vis-à-vis* the Complainant within eight working days from the day that the Complainant sent the written request to LSEG.

44. The Monitoring Trustee will also have the ability to declare a complaint vexatious, frivolous or insufficiently substantiated, in which case LSEG will not need to comply with the obligations set out in paragraphs 41 and 42, and the Arbitration process will not be available to the Complainant.

45. Without prejudice to paragraph 44, should the Complainant and LSEG (together the ***Parties to the Arbitration***) fail to resolve their differences of opinion in the consultation phase, the Complainant may serve a notice (the ***Notice***), in the sense of a request for arbitration, to the International Chamber of Commerce (the ***ICC***) (the ***Arbitral Institution***), with a copy of such Notice and request for arbitration to LSEG.

46. The Notice shall set out in detail the dispute, difference or claim (the ***Dispute***) and shall contain, inter alia, all issues of both fact and law, including any suggestions as to the procedure, and all documents relied upon shall be attached, e.g. documents, agreements, expert reports, and witness statements (without prejudice to the possibility for the Complainant to submit additional evidence and documents during the course of the Arbitration Procedure). The Notice shall also contain a detailed description of the action to be undertaken by LSEG (including, if appropriate, a draft contract comprising all relevant terms and conditions) and the Trustee Proposal, including a comment as to its appropriateness.

47. LSEG shall, within 10 working days from receipt of the Notice, submit its answer (the ***Answer***), which shall provide detailed reasons for its conduct and set out, inter alia, all issues of both fact and law, including any suggestions as to the procedure, and all documents relied upon, e.g. documents, agreements, expert reports, and witness statements. The Answer shall, if appropriate, contain a detailed description of the action which LSEG proposes to undertake vis-à-vis the Complainant (including, if appropriate, a draft contract comprising all relevant terms and conditions) and the Trustee Proposal (if not already submitted), including a comment as to its appropriateness.

I. Appointment of the Arbitrators

48. The Arbitral Tribunal shall consist of three persons. The Complainant shall nominate its arbitrator in the Notice; LSEG shall nominate its arbitrator in the Answer. The arbitrators nominated by the Complainant and by LSEG shall, within five working days of the nomination of the latter, nominate the chairman, making such nomination known to the parties and the Arbitral Institution which shall forthwith confirm the appointment of all three arbitrators.

49. Should the Complainant wish to have the Dispute decided by a sole arbitrator it shall indicate this in the Notice. In this case, the Complainant and LSEG shall agree on the nomination of a sole arbitrator within five working days from the communication of the Answer, communicating this to the Arbitral Institution.

50. Should (i) LSEG fail to nominate an arbitrator; (ii) the two arbitrators fail to agree on the chairman; or (iii) the Parties to the Arbitration fail to agree on a sole arbitrator, the default appointment(s) shall be made by the Arbitral Institution.

51. The three-person arbitral tribunal or, as the case may be, the sole arbitrator, are herein referred to as the ***Arbitral Tribunal***.

II. Arbitration Procedure

52. The Dispute shall be finally resolved by arbitration under the ICC rules, with such modifications or adaptations as foreseen herein or necessary under the circumstances (the ***Rules***). The Arbitration shall be conducted in London, England in the English language.

53. The procedure shall be a fast-track procedure. For this purpose, the Arbitral Tribunal shall shorten all applicable procedural time-limits under the Rules as far as admissible and appropriate in the circumstances. The Parties to the Arbitration shall consent to the use of e-mail for the exchange of documents.

54. The Arbitral Tribunal shall, as soon as practical after the confirmation of the Arbitral Tribunal, hold an organisational conference to discuss any procedural issues with the Parties to the Arbitration. Terms of Reference shall be drawn up and signed by the Parties to the Arbitration and the Arbitration Tribunal at the organisational meeting or thereafter and a procedural time-table shall be established by the Arbitral Tribunal. An oral hearing shall, as a rule, be established within two months of the confirmation of the Arbitral Tribunal.

55. In order to enable the Arbitral Tribunal to reach a decision, it shall be entitled to request any relevant information from the Parties to the Arbitration, to appoint experts and to examine them at the hearing, and to establish the facts by all appropriate means. The Arbitral Tribunal is also entitled to ask for assistance by the Monitoring Trustee in all stages of the procedure if the Parties to the Arbitration agree.

56. The Arbitral Tribunal shall not disclose Confidential Information and shall apply the standards attributable to Confidential Information under the Merger Regulation. The Arbitral Tribunal may take the measures necessary for protecting Confidential Information in particular by restricting access to Confidential Information to the Arbitral Tribunal, the Monitoring Trustee, and outside counsel and experts of the opposing party.

57. The burden of proof in any dispute under these Rules shall be borne as follows: (i) the Complainant must produce evidence of a prima facie case; and (ii) if the Complainant produces evidence of a prima facie case, the Arbitral Tribunal must find in favour of the Complainant unless LSEG can produce evidence to the contrary.

III. Involvement of the Commission

58. The Commission shall be allowed and enabled to participate in all stages of the procedure by:

(a) receiving all written submissions (including documents and reports, etc.) made by the Parties to the Arbitration;

(b) receiving all orders, interim and final awards and other documents exchanged by the Arbitral Tribunal with the Parties to the Arbitration (including Terms of Reference and procedural time-table);

(c) giving the Commission the opportunity to file amicus curiae briefs; and

(d) being present at the hearing(s) and being allowed to ask questions to parties, witnesses and experts.

59. The Arbitral Tribunal shall forward or shall order the Parties to the Arbitration to forward, the documents mentioned to the Commission without delay.

60. In the event of disagreement between the Parties to the Arbitration regarding the interpretation of the IS Commitments, the Arbitral Tribunal may seek the Commission's interpretation of the IS Commitments before finding in favour of any Party to the Arbitration and shall be bound by the interpretation.

IV. Decisions of the Arbitral Tribunal

61. The Arbitral Tribunal shall take all decisions by majority vote. The Arbitral Tribunal shall decide the Dispute on the basis of these Commitments and the Decision. Issues not covered by the Commitments and the Decision shall be decided (in the order as stated) by reference to the Merger Regulation, EU law and general principles of law common to the legal orders of the Member States as well as of England & Wales without a requirement to apply a particular national system.

62. Upon request of the Complainant or LSEG, the Arbitral Tribunal may make a preliminary ruling on the Dispute. The preliminary ruling shall be rendered within one month after the confirmation of the Arbitral Tribunal, shall be applicable immediately and, as a rule, remain in force until a final decision is rendered.

63. The final award shall, as a rule, be rendered within six months after the confirmation of the Arbitral Tribunal. The time-frame shall, in any case, be extended by the time the Commission takes to submit an interpretation of the Commitment if asked by the Arbitral Tribunal.

64. The Arbitral Tribunal shall, in the preliminary ruling as well as in the final award, specify the action, if any, to be taken by LSEG in order to comply with the IS Commitments vis-à-vis the Complainant. The final award shall be final and binding on the Parties to the Arbitration and shall resolve the Dispute and determine any and all claims, motions or requests submitted to the Arbitral Tribunal. The arbitral award shall also determine the reimbursement of the costs of the successful party and the allocation of the arbitration costs. In case of granting a preliminary ruling or if otherwise appropriate, the Arbitral Tribunal shall specify that terms and conditions determined in the final award apply retroactively.

65. The Parties to the Arbitration shall prepare a non-confidential version of the final award, without business secrets. The Commission may publish the non-confidential version of the award.

66. Nothing in the arbitration procedure shall affect the power to the Commission to take decisions in relation to the Commitments in accordance with its powers under the Merger Regulation.

Section E. General provisions

67. These Commitments shall be effective worldwide.

68. These Commitments shall remain in effect for a period of ten years from the Effective Date.

Section F. The review clause

69. With the exception of the Commitment Period, the Commission may extend the time periods set out in the Commitments in response to a request from LSEG or, in appropriate cases, on its own initiative. Where LSEG requests an extension of a time period, it shall submit a reasoned request to the Commission no later than one month before the expiry of that period, showing good cause. This request shall be accompanied by a report from the Monitoring Trustee, who shall, at the same time send a non-confidential copy of the report to LSEG. Only in exceptional circumstances shall LSEG be entitled to request an extension within the last month of any period.

70. The Commission may further, in response to a reasoned request from the Notifying Party showing good cause waive, modify or substitute, in exceptional circumstances, one or more of the undertakings in these Commitments. This request shall be accompanied by a report from the Monitoring Trustee, who shall, at the same time send a non-confidential copy of the report to the Notifying Party. The request shall not have the effect of suspending the application of the undertaking and, in particular, of suspending the expiry of any time period in which the undertaking has to be complied with.

Section G. Application

71. These Commitments shall not oblige LSEG to act in breach of any law or legally binding regulatory guidelines, industry codes, or other instructions issued by a regulator relevant to LSEG.

Section H. Entry into force

72. These Commitments shall take effect on the Effective Date.

APPENDIX

FTSER UK Equity Indices

1. FTSE 100 100% Hedged to EUR Index
2. FTSE 100 Capped 10% Index
3. FTSE 100 Capped 5% Index
4. FTSE 100 Declared Dividend Index
5. FTSE 100 ex Investment Trusts Index
6. FTSE 100 Index
7. FTSE 100 Mini Index
8. FTSE 100 Net Tax Index
9. FTSE 100 USD (WM 16:00 GMT) Index
10. FTSE 100 USD Mini Index
11. FTSE 250 Declared Index
12. FTSE 250 ex Inv Co Index
13. FTSE 250 ex Investment Trusts
14. FTSE 250 Index
15. FTSE 250 Net Tax Index
16. FTSE 350 Capped 5% Index
17. FTSE 350 ex Investment Trusts Index
18. FTSE 350 ex Investment Trusts Net Tax Index
19. FTSE 350 High Yield ex Inv Trusts Index
20. FTSE 350 Higher Yield Index
21. FTSE 350 Index
22. FTSE 350 Low Yield ex Inv Trusts Index
23. FTSE 350 Lower Yield Index
24. FTSE 350 Net Tax Index
25. FTSE AIM All-Share Index
26. FTSE All-Share 100% Hedged to EUR Index
27. FTSE All-Share 100% Hedged to EUR Net Tax Index
28. FTSE All-Share Capped 10% Index
29. FTSE All-Share Capped 5% Index
30. FTSE AllShare Declared Index
31. FTSE All-Share ex Inv Co Index
32. FTSE All-Share ex Investment Trusts 5% Capped Index
33. FTSE All-Share Index
34. FTSE All-Share Net Tax Index
35. FTSE All-Small ex Inv Co Index
36. FTSE All-Small Index
37. FTSE Fledgling ex Inv Co Index
38. FTSE Fledgling Index
39. FTSE SmallCap ex Inv Co Index
40. FTSE SmallCap Index
41. NON FINANCIALS Index
42. FTSE 100 Equally Weighted Index
43. FTSE 100 Equally Weighted Net Tax Index
44. FTSE 100 Semi Annual Equally Weighted Index
45. FTSE 100 Semi Annual Equally Weighted Net Tax Index
46. FTSE 250 ex Investment Trusts Equally Weighted Index
47. FTSE 350 ex Investment Trusts Equally Weighted Index
48. FTSE UK Dividend + Index
49. FTSE UK Dividend + Net Tax Index
50. FTSE 100 Dividend Index RDSA Withholding
51. FTSE 100 Total Return Declared Dividend Index
52. FTSE AIM 100 Index
53. FTSE AIM UK 50 Index
54. FTSE UK 30 Yield Weighted Index
55. FTSE UK 30 Yield Weighted Net Tax Index

London Stock Exchange Group PLC

Proposed acquisition of

Refinitiv

COMMITMENTS TO THE EUROPEAN COMMISSION SUBMITTED PURSUANT TO COUNCIL REGULATION (EC) NO. 139/2004

Commitments in relation to OTC Interest Rate Derivatives

submitted by

London Stock Exchange Group plc

on

26 November 2020

COMP / M.9564

LSEG / REFINITIV BUSINESS

Pursuant to Article 8(2) of Council Regulation (EC) No 139/2004 (the "***Merger Regulation***"), London Stock Exchange Group plc ("***LSEG***" or the "***Notifying Party***") hereby enters into the following Commitments (the "***Commitments***") vis-à-vis the European Commission (the "***Commission***") with a view to rendering the acquisition by LSEG of sole control over the Refinitiv business ("***Refinitiv***"; together with LSEG the "***Parties***") (the "***Concentration***") compatible with the internal market and the functioning of the EEA Agreement.

This text shall be interpreted in light of the Commission's decision pursuant to Article 8(2) of the Merger Regulation to declare the Concentration compatible with the internal market and the functioning of the EEA Agreement (the "***Decision***"), in the general framework of European Union law, in particular in light of the Merger Regulation, and by reference to the Commission Notice on remedies acceptable under Council Regulation (EC) No 139/2004 and under Commission Regulation (EC) No 802/2004 (the "***Remedies Notice***").

Section A. Definitions

1. For the purpose of the Commitments, the following terms shall have the following meaning:

Affiliated Undertakings means undertakings controlled by the Parties and/or by the ultimate parents of the Parties, whereby the notion of control shall be interpreted pursuant to Article 3 of the Merger Regulation and in light of the Commission Consolidated Jurisdictional Notice under Council Regulation (EC) No 139/2004 on the control of concentrations between undertakings.

Best efforts obligations shall be interpreted in light of the Commission's decision pursuant to Article 8(2) of the Merger Regulation to declare the Concentration compatible with the internal market and the functioning of the EEA Agreement, the Merger Regulation and the general principles of EU law. Any interpretation that may be given to this term under the law of other jurisdictions is not relevant solely for the purpose of interpreting and/or implementing the Commitments.

CCP means a legal person that interposes itself between the counterparties to the contracts traded on one or more financial markets, becoming the buyer to every seller and the seller to every buyer.

Clearing means the process of establishing positions, including the calculation of net obligations, and ensuring that financial instruments, cash, or both, are available to secure the exposures arising from those positions.

Clearing Fees means all fixed and variable elements payable to LSEG by a Clearing Member or Client for Clearing of OTC IRD contracts, as well as any potential fees payable by Trading Venues and/or Middleware Providers, if applicable e.g., access fees. This includes, and is not necessarily limited to (i) LCH SwapClear Clearing Member fees (including any volume-based fee plans, product specific pricing plans, and new Clearing Member onboarding fees); (ii) LCH SwapClear Client Clearing fees (including any volume-based fee plans, booking fees, maintenance fees and account fees); and (iii) ICE Libor fees (where applicable), payable for the provision of services required for the Clearing of any OTC IRD contract.

Clearing Member means an undertaking which participates in a CCP and which is responsible for discharging the financial obligations arising from that participation.

Client means an undertaking with a contractual relationship with a Clearing Member of a CCP which enables that Clearing Member to clear on its behalf.

Closing means closing of the Concentration.

Commitment Period means ten years from the date of the Decision.

Complainant means any OTC IRD Trading Venue regardless of location or any Middleware Provider regardless of location which has submitted a written complaint to LSEG (with a copy to the Monitoring Trustee) pursuant to the process set out in Section E of these Commitments that LSEG is not complying with these Commitments.

Confidential Information means any business secrets, know-how, commercial information, or any other information of a proprietary nature that is not in the public domain.

Conflict of Interest means any conflict of interest that could impair the Monitoring Trustee's objectivity and independence in discharging its duties under the Commitments.

Effective Date means the date of adoption of the Decision.

EMIR means the European Market Infrastructure Regulation (Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories), as amended from time to time, as well as new legislation, which replaces this Regulation (EU) No 648/2012.

LCH Ltd means LCH's UK-registered Clearing house, incorporated in England and Wales (registered number 25932), whose principal office is at Aldgate House, 33 Aldgate High Street, London EC3N 1EA.

LCH Rulebook means the applicable rules of LCH Ltd as published at https://www.lch.com/resources/rules-and-regulations/ltd-rulebooks (or any replacement or successor websites), as amended from time to time (which shall include both the Rulebook and FCM Rulebook, as defined therein).

LCH SwapClear (or **SwapClear**) means LCH Ltd's Clearing business responsible for the Clearing of OTC IRDs (including any successor business under a different name and/or housed in a different LSEG entity, as well as new legal entities directly or indirectly controlled by LSEG to whom LCH SwapClear's clearing business is transferred in whole or in part).

Middleware Provider means a system or facility, such as an exchange, a clearing house, a swap execution facility, a designated contract market, trade confirmation or affirmation system or other similar venue or system, which is able to submit confirmed OTC IRD transactions for Clearing to any authorised or recognised CCP, such as MarkitWire and Traiana (and excludes, for the avoidance of doubt, Trading Venues directly connected to LCH SwapClear via the ClearLink API).

Monitoring Trustee means one or more natural or legal person(s) who is/are approved by the Commission and appointed by LSEG, and who has/have the duty to monitor LSEG's compliance with the conditions and obligations attached to the Decision.

OTC IRD means any derivative contract, which is a financial instrument based on a future exposure to an underlying benchmark rate, composite index, or reference basket of securities

whose value is affected by changes in interest rates, and the execution of which does not take place on a regulated market within the meaning of Article 4(1)(14) of Directive 2004/39/EC or on a third-country market considered as equivalent to a regulated market in accordance with Article 19(6) of Directive 2004/39/EC. For the avoidance of doubts, this includes, but is not limited to, interest rate swaps, overnight index swaps, forward rate agreements, and inflation swaps.

OTC IRD Clearing Services means services provided by LSEG's CCPs required for their Clearing of OTC IRDs. These services are currently provided by LCH SwapClear.

Tradeweb means Tradeweb Markets Inc., an independent US publicly-traded company, incorporated in Delaware, United States and whose principal office is at 1177 Avenue of the Americas New York, New York 10036, United States (including any successor business under a different name and/or housed in a different LSEG entity, as well as new legal entities directly or indirectly controlled by LSEG to whom Tradeweb's trading business is transferred in whole or in part).

Trading Venue means a 'trading venue' as defined under EMIR, i.e. a system operated by an investment firm or a market operator within the meaning of Article 4(1)(1) and 4(1)(13) of Directive 2004/39/EC other than a systematic internaliser within the meaning of Article 4(1)(7) thereof, which brings together buying or selling interests in OTC IRDs in the system (including dealer-to-customer, dealer-to-dealer and/or customer-to-customer), in a way that results in a contract in accordance with Title II or III of that Directive.

Section B. The Commitments

Open access on non-discriminatory terms

2. LSEG commits to offer its global OTC IRD Clearing Services on an open access basis and that it will not engage in commercial strategies that would have the object or effect of discriminating based on the source of the OTC IRD trade submitted to LSEG for Clearing (and in particular to LCH SwapClear). This commitment applies to all OTC IRD Trading Venues and Middleware Providers, including for the avoidance of doubt any Trading Venues and Middleware Providers which request to be connected to LSEG (and in particular to LCH SwapClear) for OTC IRDs in the future, and irrespective of their location. For the avoidance of doubt, this requirement is without prejudice to LSEG's ability to treat differently (i) Trading Venues on the one hand, and Middleware Providers on the other hand; and (ii) different Trading Venues or different Middleware Providers where the objective technical specificities of either justify it.

3. By these commitments LSEG commits to not engage in commercial strategies in relation to OTC IRD Clearing Services (including via LCH SwapClear or by LSEG, including via LCH SwapClear, coordinating its activities or strategies with Tradeweb[1]) that have the object or the effect of foreclosing Trading Venues and Middleware Providers by applying discriminatory conditions to, on the one hand, trades executed on or from Tradeweb, and on the other hand, trades executed on or

[1] While Tradeweb is not a signatory to these Commitments and so is not bound by them, they do apply to LSEG in its capacity as a majority shareholder of Tradeweb.

from other Trading Venues than Tradeweb and/or Middleware Providers, including in terms of price (e.g. Clearing Fees), service level and service offering, technical, operational or service quality requirements, cooperation and innovation or new product launches. LSEG specifically makes the following commitments with respect to OTC IRD Clearing Services:

(a) LSEG (and in particular LCH SwapClear) will continue to comply with all regulatory requirements set out in EMIR (as may be amended from time to time) to the extent applicable to the non-discriminatory and transparent Clearing of OTC IRDs, including the Article 7 EMIR provisions that would otherwise apply to EU-recognised CCPs only.[2] These Commitments will continue in full force and effect for the Commitment Period, irrespective of the nature and scope of any future trade agreement concluded between the European Union and the United Kingdom (or the absence thereof);

(b) LSEG (and in particular LCH SwapClear) will apply all regulatory requirements set out in EMIR (as may be amended from time to time) to the extent applicable to the non-discriminatory and transparent Clearing of OTC IRDs to any Middleware Provider in the same manner as they are applicable to Trading Venues, again irrespective of the nature and scope of any future trade agreement concluded between the European Union and the United Kingdom (or the absence thereof);

(c) LSEG (and in particular LCH SwapClear) will strengthen and enhance its existing open access model and non-discriminatory business practices in relation to any Trading Venues and Middleware Providers through which trades are submitted to LSEG (and in particular to LCH SwapClear) for Clearing and that are connected to LSEG (and in particular to LCH SwapClear) for Clearing from time to time. In particular, LSEG:

i. will:

(i) ensure that all current and future Clearing Fees and compression fees (if the Clearing Member uses a compression service of LSEG) will be set in a transparent manner and will be non-discriminatory between Trading Venues and Middleware Providers; and

(ii) in respect of its OTC IRD Clearing Services, not coordinate its pricing, including with Tradeweb, e.g. by way of cross-subsidization or bundling in relation to OTC IRD products cleared by LSEG (and in particular LCH SwapClear) and/or offered for trading by Tradeweb – in a way that could result in LSEG (and in particular LCH SwapClear) engaging in indirect price or cost discrimination between Tradeweb and other Trading Venues and Middleware Providers or otherwise based on a trade's route to Clearing;

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2 For the purpose of these Commitments, "competent authority" of the CCP in Article 7 EMIR shall mean the UK Bank of England in respect of LCH SwapClear.

ii. will guarantee non-discriminatory treatment in respect of service levels (including but not limited to the time period within which LCH SwapClear will accept or not accept the OTC IRD trade for Clearing), technical specifications and operational standards (including interoperability requirements) that must be met by Trading Venues and Middleware Providers to maintain connectivity to LCH SwapClear, and functionalities offered by LCH SwapClear, including by:

(i) guaranteeing that the quality and/or service levels of its OTC IRD Clearing Services and related workflow functionality is provided on a non-discriminatory basis, i.e. irrespective of the Trading Venue or Middleware Provider from which that customer's trade has originated. This includes (but is not limited to):

(A) accepting all OTC IRDs trades for Clearing as quickly as technologically practicable and on a non-discriminatory basis; and

(B) making available new workflow functionality at the same time to all Trading Venues and Middleware Providers connected to LSEG for OTC IRDs Clearing on a non-discriminatory basis;

(ii) in order to ensure that all connected Trading Venues and Middleware Providers have an equal opportunity to adapt to any new processes or technical / operational requirements, LCH SwapClear will serve all connected Trading Venues and Middleware Providers notice of the nature and timing of any planned changes to technical or operational requirements as early as practicable under a best efforts obligation, and in any event no less than at least three months before such changes take effect, with technical specifications provided as early as practicable under a best efforts obligation, and in any event no less than at least one month before such changes take effect (unless otherwise approved by the Monitoring Trustee and then with as much advance notice as practicable),[3] and with notice on the nature, timing and technical requirements of such changes being served to all connected Trading Venues and Middleware Providers on the same day in the same format, and with the same degree of substance and the same level of cooperation;

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3 Where it has not been reasonably practicable for LSEG to observe the three-month or the one-month period for regulatory and/or risk management reasons (e.g. in the event of a cyber-attack), LSEG will not be required to seek approval, but will in any event inform the Monitoring Trustee as soon as practicable.

(iii) LSEG (and in particular LCH SwapClear) will offer all existing and future key workflow functionalities for OTC IRD Clearing Services (to ensure consistent service levels) (i) on non-discriminatory commercial terms; (ii) subject to non-discriminatory technical and operational requirements; and (iii) no later than they are made available to Tradeweb; and

iii. will cooperate on a non-discriminatory basis in relation to OTC IRD Clearing Services with Trading Venues that want to introduce new OTC IRD products for Clearing,[4] including by:

(i) guaranteeing that LSEG (and in particular LCH SwapClear) will cooperate on a non-discriminatory basis with all Trading Venues and Middleware Providers for the launch of new or enhanced products for Clearing. This includes (but is not limited to):

(A) offering support with technical queries from Trading Venues and Middleware Providers on a non-discriminatory basis;

(B) ensuring specifications for new products (including margin requirements) are set in a non-discriminatory (i.e. Trading Venue- and Middleware Provider-agnostic) manner;

(ii) assessing, in good faith, under a best efforts obligation, and on a non-discriminatory basis, proposals from Trading Venues and Middleware Providers regarding new and enhanced products for Clearing, in particular by using the same analytical framework as applied to any proposals from Tradeweb;

(iii) updating all connected Trading Venues and Middleware Providers in respect of planned innovations and/or new product launches with respect to OTC IRD Clearing Services in the same manner, at the same time, via confidential quarterly updates (to the extent there are any such innovations or launches), which will be provided to all connected Trading Venues and Middleware Providers at the same time; and

(iv) guaranteeing that all new Clearing products adopted by LSEG (and in particular by LCH SwapClear) will be made available to all connected Trading Venues and Middleware Providers (i) on non-discriminatory commercial terms; (ii) subject to non-discriminatory technical and operational requirements; and (iii) no later than they are made available to Tradeweb

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4 In the unlikely event that a situation arises where LSEG considers that in order to bring a highly innovative product or service to market it needs to cooperate with an individual Trading Venue, where full compliance with the Commitments would otherwise prevent LSEG from doing so and therefore would prevent the innovative product or service from being developed, LSEG may raise this with the Monitoring Trustee who shall have the discretion to grant or refuse a dispensation from this paragraph 3(c)iii for such situation. The Monitoring Trustee will coordinate its decision with the Commission and inform LSEG of its decision.

unless this is prevented by the existence of third-party IP, confidentiality or other rights and, having used best efforts to obtain consent from the holder of such rights, consent to disclose this information is refused.[5]

4. LCH Ltd will use best efforts to incorporate into the LCH Rulebook LCH SwapClear's commitment to providing OTC IRD Clearing Services on an open access and non-discriminatory basis. The LCH Rulebook is subject to review by LCH's governance and regulators (including the Bank of England and United States Commodity Futures Trading Commission).

5. LSEG commits to establish appropriate ring-fencing and firewalls between its trading and clearing activities for OTC IRDs in order to ensure that any LSEG entities active in OTC IRD Clearing Services do not provide to LSEG's entities active in OTC IRD trading (and in particular Tradeweb for as long as LSEG holds a controlling shareholding in Tradeweb) any OTC IRD Clearing Services information about current and future: (i) prices (e.g. Clearing Fees and compression fees); (ii) technical, operational or service quality requirements; or (iii) innovation or new product launches, which other Trading Venues and Middleware Providers would not otherwise obtain at the same time. If Tradeweb obtains such information, the information will be communicated to other Trading Venues and Middleware Providers simultaneously, in the same format, and with the same degree of substance and the same level of cooperation.

6. For the sake of completeness, LSEG commits to ensure that any third-party suppliers that LSEG works with in relation to its OTC IRD Clearing Services will also be made aware of, and required to comply with, the ring-fencing and firewall obligations set out in paragraph 5 above.

Section C. Transparency in provision of OTC IRD Clearing Services

7. LSEG will ensure that LCH SwapClear publishes, and makes easily accessible:

   (a) standard terms of access for the provision of all OTC IRD Clearing Services on a secure website to any Trading Venue and Middleware Provider;[6]

   (b) Clearing Fees and compression fees, including clear statements that no discriminatory pricing based on choice of Trading Venue or Middleware Provider is permitted, on its public website;

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5 This exception preserves third parties' (including but not limited to Trading Venues and Middleware Providers) incentives to innovate. LSEG (and in particular LCH SwapClear) commits to implement robust ring-fencing arrangements to ensure third-party confidential proposals would not be disclosed to Tradeweb. For the same reason, nothing in these Commitments shall force LSEG to share Tradeweb confidential proposals with other Trading Venues and Middleware Providers without Tradeweb's consent. This preserves Tradeweb's incentives to innovate and its ability to compete independently and on the merits with other Trading Venues and Middleware Providers.

6 For cyber security reasons LCH SwapClear considers that these specifications cannot be published on its public website. However, LCH SwapClear commits to publish on its public website and make easily accessible to any Trading Venue or Middleware Provider the information explaining how the Trading Venues and Middleware Providers can get access to the secure website.

(c) technical and operational connectivity requirements applicable to all connected Trading Venues and Middleware Providers, including in respect of existing and future key workflow functionalities, and details of any upcoming technical changes and/or upgrades, which will be published on a secure website which any connected Trading Venue and Middleware Provider can access;[7]

(d) the terms of these Commitments, including the details of the fast track dispute resolution mechanism, including the timeframes within which LSEG will respond to any complaint received in connection with the Commitments, on its public website; and

(e) the name and contact details of the Monitoring Trustee, on its public website.

Section D. Monitoring Trustee

I. Appointment procedure

8. LSEG shall appoint a Monitoring Trustee to carry out the functions specified in these Commitments for a Monitoring Trustee.

9. The Monitoring Trustee shall:

(i) at the time of appointment, be independent of the Parties and their Affiliated Undertakings;

(ii) possess the necessary qualifications to carry out its mandate, for example have sufficient relevant experience; and

(iii) neither have nor become exposed to a Conflict of Interest during the Commitment Period and for one year after the Commitment Period ends.

10. The Monitoring Trustee shall be remunerated by LSEG in a way that does not impede the independent and effective fulfilment of its mandate.

Proposal by LSEG

11. No later than two weeks after the Effective Date, LSEG shall submit the name or names of one or more natural or legal persons whom LSEG proposes to appoint as the Monitoring Trustee to the Commission for approval. The proposal shall contain sufficient information for the Commission to verify that the person or persons proposed as Monitoring Trustee fulfil the requirements set out in paragraph 9 and shall include:

(i) the full terms of the proposed mandate, which shall include all provisions necessary to enable the Monitoring Trustee to fulfil its duties under these Commitments; and

(ii) the outline of a work plan which describes how the Monitoring Trustee intends to carry out its assigned tasks.

Approval or rejection by the Commission

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7 Ibid.

12. The Commission shall have the discretion to approve or reject the proposed Monitoring Trustee and to approve the proposed mandate subject to any modifications it deems necessary for the Monitoring Trustee to fulfil its obligations. If only one name is approved, LSEG shall appoint or cause to be appointed the person or persons concerned as Monitoring Trustee, in accordance with the mandate approved by the Commission. If more than one name is approved, LSEG shall be free to choose the Monitoring Trustee to be appointed from among the names approved. The Monitoring Trustee shall be appointed within one week of the Commission's approval, in accordance with the mandate approved by the Commission.

New proposal by LSEG

13. If all the proposed Monitoring Trustees are rejected, LSEG shall submit the names of at least two more natural or legal persons within one week of being informed of the rejection, in accordance with paragraphs 8-12 of these Commitments.

Trustee nominated by the Commission

14. If all further proposed Trustees are rejected by the Commission, the Commission shall nominate a Monitoring Trustee, whom LSEG shall appoint, or cause to be appointed, in accordance with a trustee mandate approved by the Commission.

II. Functions of the Monitoring Trustee

15. The Monitoring Trustee shall assume its specified duties and obligations in order to ensure compliance with the Commitments. The Commission may, on its own initiative or at the request of the Monitoring Trustee or LSEG, give any orders or instructions to the Monitoring Trustee in order to ensure compliance with the conditions and obligations attached to the Decision.

16. The Monitoring Trustee shall:

(i) propose in its first report to the Commission a detailed work plan describing how it intends to monitor compliance with the obligations and conditions attached to the Decision;

(ii) monitor the implementation of and compliance with the Commitments, by LSEG, as set out in Sections B and C above;

(iii) act as a contact point for any requests by third parties in relation to the Commitments;

(iv) propose to LSEG such measures as the Monitoring Trustee considers necessary to ensure LSEG's compliance with the Commitments;

(v) provide to the Commission, sending LSEG a non-confidential copy at the same time, a written report regarding the compliance by LSEG with the Commitments within 15 days after the end of every reporting period, each period being (i) one month for the first six months post-Closing; (ii) three months for the remainder of the first two years; (iii) six months in years three and four; and (iv) 12 months for the remainder of the Commitment Period. The Commission can amend the frequency of these reports after consulting with the Monitoring Trustee;

(vi) promptly report in writing to the Commission, sending LSEG a non-confidential copy at the same time, if it concludes on reasonable grounds that LSEG is failing to comply with the Commitments; and

(vii) assume the other functions assigned to the Monitoring Trustee under the conditions and obligations attached to the Decision.

III. Duties and obligations of LSEG

17. LSEG shall provide and shall cause its advisors to provide the Monitoring Trustee with all such co-operation, assistance and information as the Monitoring Trustee may reasonably require to perform its tasks.

18. The Monitoring Trustee shall have full and complete access to any of LSEG's books, records, documents, management or other personnel, facilities, sites and technical information necessary for fulfilling its duties under the Commitments, and LSEG shall provide the Monitoring Trustee upon request with copies of any document. LSEG shall make available to the Monitoring Trustee one or more offices on their premises and shall be available for meetings in order to provide the Monitoring Trustee with all information necessary for the performance of its tasks.

19. LSEG shall indemnify the Monitoring Trustee and its employees and agents (each an "***Indemnified Party***") and hold each Indemnified Party harmless against, and hereby agrees that an Indemnified Party shall have no liability to LSEG for, any liabilities arising out of the performance of the Monitoring Trustee's duties under the Commitments, except to the extent that such liabilities result from the wilful default, recklessness, gross negligence or bad faith of the Monitoring Trustee, its employees, agents or advisors.

20. At the expense of LSEG, the Monitoring Trustee may appoint advisors (in particular for corporate finance or legal advice), subject to LSEG's approval (this approval not to be unreasonably withheld or delayed) if the Monitoring Trustee considers the appointment of such advisors necessary or appropriate for the performance of its duties and obligations under the mandate, provided that any fees and other expenses incurred by the Monitoring Trustee are reasonable. Should LSEG refuse to approve the advisors proposed by the Monitoring Trustee, the Commission may approve the appointment of such advisors instead, after having heard LSEG. Only the Monitoring Trustee shall be entitled to issue instructions to the advisors. Paragraph 19 of these Commitments shall apply *mutatis mutandis*.

21. LSEG agrees that the Commission may share Confidential Information proprietary to LSEG with the Monitoring Trustee. The Monitoring Trustee shall not disclose such information, and the principles contained in Article 17(1) and (2) of the Merger Regulation apply *mutatis mutandis*.

22. LSEG agrees that the contact details of the Monitoring Trustee are published on the website of the Commission's Directorate-General for Competition and they shall inform interested third parties of the identity and the tasks of the Monitoring Trustee.

23. For a period of ten years from the Effective Date the Commission may request all information from LSEG that is reasonably necessary to monitor the effective implementation of these Commitments.

IV. Replacement, discharge and reappointment of the Monitoring Trustee

24. If the Monitoring Trustee ceases to perform its functions under the Commitments or for any other good cause, including the exposure of the Trustee to a Conflict of Interest:

    (i) the Commission may, after hearing the Monitoring Trustee and LSEG, require LSEG to replace the Monitoring Trustee; or

    (ii) LSEG may, with the prior approval of the Commission, replace the Monitoring Trustee.

25. If the Monitoring Trustee is removed according to paragraph 24 of these Commitments, the Monitoring Trustee may be required to continue in its function until a new Monitoring Trustee is in place to whom the Monitoring Trustee has effected a full hand over of all relevant information. The new Monitoring Trustee shall be appointed in accordance with the procedure referred to in paragraphs 8-14 of these Commitments.

26. Unless removed according to paragraph 24 of these Commitments, the Monitoring Trustee shall cease to act as Monitoring Trustee only after the Commission has discharged it from its duties after all the Commitments with which the Monitoring Trustee has been entrusted have been implemented. However, the Commission may at any time require the reappointment of the Monitoring Trustee if it subsequently appears that the relevant remedies might not have been fully and properly implemented.

Section E. Fast-track dispute resolution procedure

27. In the event that a Complainant has reason to believe that LSEG has failed to comply with its obligations as set out in these Commitments, the fast-track dispute resolution procedure as described in this section will apply. Such fast-track dispute resolution mechanism will be an additional option to the benefit of the Complainant and not an obligation for it. LSEG commits not to suspend access to its global OTC IRD Clearing Services to the Complainant until the date of the final award of the Arbitral Tribunal or, in case a preliminary ruling is requested, until the date of this preliminary ruling (unless in each case such access suspension is necessary for regulatory and/or risk management reasons).

28. If the Complainant wishes to avail itself of the fast-track dispute resolution procedure, it shall send a written request to LSEG (with a copy to the Monitoring Trustee) setting out in detail the reasons leading that party to believe that LSEG is failing to comply with the requirements of these Commitments. The Complainant and LSEG will use best efforts to resolve all differences of opinion and to settle all disputes that may arise through co-operation and consultation within a reasonable period of time not exceeding 10 working days after receipt of the request, except where a complaint relates to a decision made by LSEG to ensure LCH Ltd's prudent risk management (in accordance with paragraph 29 below), in which case this period shall not exceed 25 working days (the "***Consultation Phase***").

29. In the event that a decision made by LSEG to ensure LCH Ltd's prudent risk management (in accordance with the laws and regulations applicable to LCH Ltd) attracts a complaint, the Monitoring Trustee shall request an opinion from the independent non-executive directors on the LCH Ltd Risk Committee on whether there was a bona fide reason for LSEG's risk decision. The Risk Committee will report its findings to the Monitoring Trustee within 10 working days after receipt of

the Monitoring Trustee's request (or such alternative period as agreed by the Monitoring Trustee).

30. The Monitoring Trustee shall be prepared, if requested, to facilitate the settlement of the dispute and shall present its own proposal (the "***Trustee Proposal***") for resolving the dispute, specifying in writing the action, if any, to be taken by LSEG in order to ensure compliance with the Commitments *vis-à-vis* the Complainant, within (i) 10 working days from the day that the Monitoring Trustee received LCH's Risk Committee report, when the Monitoring Trustee requested a report from LCH's Risk Committee and within (ii) five working days from the day that the Complainant sent the written request to LSEG, when the Monitoring Trustee did not request a report from LCH's Risk Committee.

31. The Monitoring Trustee will also have the ability to declare a complaint vexatious, frivolous or insufficiently substantiated, in which case LSEG will not need to comply with the obligations set out in paragraph 28, and the Arbitration process will not be available to the Complainant.

32. Without prejudice to paragraph 31, should the Complainant and LSEG (together the "***Parties to the Arbitration***") fail to resolve their differences of opinion in the consultation phase, the Complainant may serve a notice (the "***Notice***"), in the sense of a request for arbitration, to the International Chamber of Commerce (the "***ICC***") (the "***Arbitral Institution***"), with a copy of such Notice and request for arbitration to LSEG.

33. The Notice shall set out in detail the dispute, difference or claim (the "***Dispute***") and shall contain, inter alia, all issues of both fact and law, including any suggestions as to the procedure, and all documents relied upon shall be attached, e.g. documents, agreements, expert reports, and witness statements (without prejudice to the possibility for the Complainant to submit additional evidence and documents during the course of the Arbitration Procedure). The Notice shall also contain a detailed description of the action to be undertaken by LSEG (including, if appropriate, a draft contract comprising all relevant terms and conditions) and the Trustee Proposal, including a comment as to its appropriateness.

34. LSEG shall, within 10 working days from receipt of the Notice, submit its answer (the "***Answer***"), which shall provide detailed reasons for its conduct and set out, inter alia, all issues of both fact and law, including any suggestions as to the procedure, and all documents relied upon, e.g. documents, agreements, expert reports, and witness statements. The Answer shall, if appropriate, contain a detailed description of the action which LSEG proposes to undertake vis-à-vis the Complainant (including, if appropriate, a draft contract comprising all relevant terms and conditions) and the Trustee Proposal (if not already submitted), including a comment as to its appropriateness.

I. Appointment of the Arbitrators

35. The Arbitral Tribunal shall consist of three persons. The Complainant shall nominate its arbitrator in the Notice; LSEG shall nominate its arbitrator in the Answer. The arbitrators nominated by the Complainant and by LSEG shall, within five working days of the nomination of the latter, nominate the chairman, making such nomination known to the parties and the Arbitral Institution which shall forthwith confirm the appointment of all three arbitrators.

36. Should the Complainant wish to have the Dispute decided by a sole arbitrator it shall indicate this in the Notice. In this case, the Complainant and LSEG shall agree on the nomination of a sole arbitrator within five working days from the communication of the Answer, communicating this to the Arbitral Institution.

37. Should (i) LSEG fail to nominate an arbitrator; (ii) the two arbitrators fail to agree on the chairman; or (iii) the Parties to the Arbitration fail to agree on a sole arbitrator, the default appointment(s) shall be made by the Arbitral Institution.

38. The three-person arbitral tribunal or, as the case may be, the sole arbitrator, are herein referred to as the ***Arbitral Tribunal***.

II. Arbitration Procedure

39. The Dispute shall be finally resolved by arbitration under the ICC rules, with such modifications or adaptations as foreseen herein or necessary under the circumstances (the "***Rules***"). The Arbitration shall be conducted in London, England in the English language.

40. The procedure shall be a fast-track procedure. For this purpose, the Arbitral Tribunal shall shorten all applicable procedural time-limits under the Rules as far as admissible and appropriate in the circumstances. The Parties to the Arbitration shall consent to the use of e-mail for the exchange of documents.

41. The Arbitral Tribunal shall, as soon as practical after the confirmation of the Arbitral Tribunal, hold an organisational conference to discuss any procedural issues with the Parties to the Arbitration. Terms of Reference shall be drawn up and signed by the Parties to the Arbitration and the Arbitration Tribunal at the organisational meeting or thereafter and a procedural time-table shall be established by the Arbitral Tribunal. An oral hearing shall, as a rule, be established within two months of the confirmation of the Arbitral Tribunal.

42. In order to enable the Arbitral Tribunal to reach a decision, it shall be entitled to request any relevant information from the Parties to the Arbitration, to appoint experts and to examine them at the hearing, and to establish the facts by all appropriate means. The Arbitral Tribunal is also entitled to ask for assistance by the Monitoring Trustee in all stages of the procedure if the Parties to the Arbitration agree.

43. The Arbitral Tribunal shall not disclose Confidential Information and shall apply the standards attributable to Confidential Information under the Merger Regulation. The Arbitral Tribunal may take the measures necessary for protecting Confidential Information in particular by restricting access to Confidential Information to the Arbitral Tribunal, the Monitoring Trustee, and outside counsel and experts of the opposing party.

44. The burden of proof in any dispute under these Rules shall be borne as follows: (i) the Complainant must produce evidence of a prima facie case; and (ii) if the Complainant produces evidence of a prima facie case, the Arbitral Tribunal must find in favour of the Complainant unless LSEG can produce evidence to the contrary.

III. Involvement of the Commission

45. The Commission shall be allowed and enabled to participate in all stages of the procedure by:

    (i) receiving all written submissions (including documents and reports, etc.) made by the Parties to the Arbitration;

    (ii) receiving all orders, interim and final awards and other documents exchanged by the Arbitral Tribunal with the Parties to the Arbitration (including Terms of Reference and procedural time-table);

    (iii) giving the Commission the opportunity to file amicus curiae briefs; and

    (iv) being present at the hearing(s) and being allowed to ask questions to parties, witnesses and experts.

46. The Arbitral Tribunal shall forward, or shall order the Parties to the Arbitration to forward, the documents mentioned to the Commission without delay.

47. In the event of disagreement between the Parties to the Arbitration regarding the interpretation of the Commitment, the Arbitral Tribunal may seek the Commission's interpretation of the Commitment before finding in favour of any Party to the Arbitration and shall be bound by the interpretation.

IV. Decisions of the Arbitral Tribunal

48. The Arbitral Tribunal shall take all decisions by majority vote. The Arbitral Tribunal shall decide the Dispute on the basis of these Commitments and the Decision. Issues not covered by the Commitments and the Decision shall be decided (in the order as stated) by reference to the Merger Regulation, EU law and general principles of law common to the legal orders of the Member States as well as of England & Wales without a requirement to apply a particular national system.

49. In the event that a decision made by LSEG to ensure LCH Ltd's prudent risk management (in accordance with the laws and regulations applicable to LCH Ltd) attracts a complaint, the Arbitral Tribunal shall give due consideration to the evidence adduced by LSEG in relation to its prudent exercise of risk management, including but not limited to: (i) LCH SwapClear's historical practices for determining risk; (ii) any opinion, view or recommendation of the LCH Ltd Risk Committee (including where constituted in a manner consistent with paragraph 29 of these Commitments); (iii) any view or indication provided by any relevant regulatory authority; and (iv) any other regulatory guidance as to the regulatory or risk management question at issue.

50. Upon request of the Complainant or LSEG, the Arbitral Tribunal may make a preliminary ruling on the Dispute. The preliminary ruling shall be rendered within ten working days after the confirmation of the Arbitral Tribunal, shall be applicable immediately and, as a rule, remain in force until a final decision is rendered.

51. The final award shall, as a rule, be rendered within six months after the confirmation of the Arbitral Tribunal. The time-frame shall, in any case, be extended by the time the Commission takes to submit an interpretation of the Commitment if asked by the Arbitral Tribunal.

52. The Arbitral Tribunal shall, in the preliminary ruling as well as in the final award, specify the action, if any, to be taken by LSEG in order to comply with the

Commitments vis-à-vis the Complainant. The final award shall be final and binding on the Parties to the Arbitration and shall resolve the Dispute and determine any and all claims, motions or requests submitted to the Arbitral Tribunal. The arbitral award shall also determine the reimbursement of the costs of the successful party and the allocation of the arbitration costs. In case of granting a preliminary ruling or if otherwise appropriate, the Arbitral Tribunal shall specify that terms and conditions determined in the final award apply retroactively.

53. The Parties to the Arbitration shall prepare a non-confidential version of the final award, without business secrets. The Commission may publish the non-confidential version of the award.

54. Nothing in the arbitration procedure shall affect the power to the Commission to take decisions in relation to the Commitments in accordance with its powers under the Merger Regulation.

Section F. General provisions

55. These Commitments shall be effective worldwide.

56. These Commitments shall remain in effect for a period of ten years from the Effective Date.

Section G. The review clause

57. With the exception of the Commitment Period, the Commission may extend the time periods set out in the Commitments in response to a request from LSEG or, in appropriate cases, on its own initiative. Where LSEG requests an extension of a time period, it shall submit a reasoned request to the Commission no later than one month before the expiry of that period, showing good cause. This request shall be accompanied by a report from the Monitoring Trustee, who shall, at the same time send a non-confidential copy of the report to LSEG. Only in exceptional circumstances shall LSEG be entitled to request an extension within the last month of any period.

58. The Commission may further, in response to a reasoned request from the Notifying Party showing good cause waive, modify or substitute, in exceptional circumstances, one or more of the undertakings in these Commitments. This request shall be accompanied by a report from the Monitoring Trustee, who shall, at the same time send a non-confidential copy of the report to the Notifying Party. The request shall not have the effect of suspending the application of the undertaking and, in particular, of suspending the expiry of any time period in which the undertaking has to be complied with.

Section H. Application

59. These Commitments shall apply to the extent that LCH SwapClear is authorised or recognised to clear OTC IRD contracts under EMIR.

60. These Commitments shall not oblige LSEG to act in breach of any law or legally binding regulatory guidelines, industry codes, or other instructions issued by a regulator relevant to LSEG.

Section I. Entry into force

61. These Commitments shall take effect upon the date of adoption of the Decision.