



EUROPEAN COMMISSION
Competition DG

CASE AT.40452 – Apple – Mobile Payments

(Only the English text is authentic)

ANTITRUST PROCEDURE Council Regulation (EC) No 1/2003

Article 9 Regulation (EC) 1/2003

Date: 11/07/2024

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EUROPEAN
COMMISSION

Brussels, 11.7.2024
C(2024) 4761 final

COMMISSION DECISION

of 11.7.2024

**relating to proceedings under Article 102 of the Treaty on the Functioning of the
European Union and Article 54 of the Agreement on the European Economic Area**

Case AT.40452 – Apple – Mobile Payments

(Text with EEA relevance)

(Only the English text is authentic)

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Case AT.40452 – Apple – Mobile Payments

(Text with EEA relevance)

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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,

Having regard to 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 Treaty¹, in particular Article 9(1) thereof,

Having regard to the Commission Decision of 16 June 2020 to initiate proceedings in this case,

Having expressed concerns in a Statement of Objections of 2 May 2022,

Having given interested third parties the opportunity to submit their observations pursuant to Article 27(4) of Regulation (EC) No 1/2003 on the commitments offered to meet those concerns,

After consulting the Advisory Committee on Restrictive Practices and Dominant Positions,

Having regard to the final report of the Hearing Officer,

Whereas:

1. INTRODUCTION

- (1) This Decision is addressed to Apple Inc., a corporation organised under the laws of California, United States, with its principal place of business at One Apple Park Way, Cupertino, CA 95014, United States and to Apple Distribution International Limited, a company organised under the laws of Ireland, with its principal place of business at Hollyhill Industrial Estate, Hollyhill, Cork, T23 YK84, Ireland (together referred to as ‘Apple’) and concerns Apple’s business practices relating to the refusal of access to its Near-Field Communication (‘NFC’) input to

¹ OJ L 1, 4.1.2003, p.1. With effect from 1 December 2009, Articles 81 and 82 of the EC Treaty have become Articles 101 and 102, respectively, of the Treaty on the Functioning of the European Union (‘TFEU’). The two sets of provisions are, in substance, identical. For the purposes of this Decision, references to Articles 101 and 102 of the TFEU should be understood as references to Articles 81 and 82, respectively, of the EC Treaty when where appropriate. The TFEU also introduced certain changes in terminology, such as the replacement of ‘Community’ by ‘Union’ and ‘common market’ by ‘internal market’. Where the meaning remains unchanged, the terminology of the TFEU will be used throughout this Decision.

developers of software applications supporting payments services on Apple's iOS² devices in the European Economic Area ('EEA').

- (2) In its Statement of Objections of 2 May 2022 ('SO'), the Commission came to the preliminary conclusion that Apple holds a significant degree of market power in the market for smart mobile devices and holds a dominant position on the market for the NFC Input³ on iOS and on the market for NFC (in-store) mobile wallets on iOS⁴, as well as in a potential wider market for all (in-store) mobile wallets on iOS⁵, and abused its dominant position within the meaning of Article 102 of the Treaty on the Functioning of the European Union ('TFEU') and of Article 54 of the Agreement on the European Economic Area ('EEA Agreement') by refusing to supply the NFC Input on iOS to app developers.
- (3) According to the SO, Apple's conduct of reserving to itself access to the NFC Input for in-store payments on iOS smart mobile devices and refusing access thereto to competing providers of NFC (in-store) mobile wallets on iOS for the same purpose (that is, enabling in-store payments) (the 'Conduct') leads to the elimination of competition in the market for NFC (in-store) mobile wallets on iOS by excluding (potential) competition. The Conduct forces all mobile NFC in-store purchases on iOS devices to be made through Apple Pay⁶. This means that, for example, banks must enter into Apple Pay agreements to enable their cardholders to use mobile payments on iOS devices [...].
- (4) The SO constitutes the Commission's preliminary assessment within the meaning of Article 9(1) of Regulation (EC) No 1/2003.
- (5) While Apple disagrees with the preliminary conclusions reached by the Commission in its SO, it has nevertheless offered commitments under Article 9(1) of Regulation (EC) No 1/2003 to resolve the preliminary concerns expressed by the Commission. This Decision finds that Apple's commitments, which are without prejudice to Apple's current or future obligations under other regulations, in particular relating to other use cases and functionalities within the scope of the DMA and the implementation of the Digital Euro, remove these preliminary concerns. Furthermore, this Decision makes those commitments binding on Apple.

2. THE PARTIES TO THE INVESTIGATION COVERED BY THIS DECISION

- (6) Apple Inc. is an American multinational technology company headquartered in Cupertino, California, United States. Apple develops, manufactures, and sells consumer electronics, computer software, and online services.

² iOS (stands for iPhone operating system) is an operating system owned and developed by Apple exclusively for its smartphone devices, iPhones.

³ The NFC Input encompasses all hardware and software elements required for the implementation of a fully functional NFC (in-store) mobile wallet on iOS. This includes inter alia: a) two-way communication between NFC terminals and a payment application through the NFC controller, b) the possibility for third party payment applications to request permission from users to access the NFC antenna, and c) the technical possibility for consumers to select the preferred payment application at the POS terminal.

⁴ While the SO referred to 'the market for NFC mobile wallets on iOS', this Decision adds '(in-store)' as clarification, without changing how the market is defined.

⁵ While the SO referred to 'the potentially broader market of in-store mobile wallets on iOS', this Decision adds 'all' and '(in-store)' as clarification, without changing how the market is defined.

⁶ Apple Pay is a mobile payment service developed and offered by Apple exclusively on its devices.

- (7) The Apple Group is composed of Apple Inc. and all companies controlled by it. The Apple Group encompasses companies incorporated in Ireland, in particular Apple Operations International Limited and Apple Distribution International Limited, which are subsidiaries owned by Apple Inc. As of 30 September 2023, the Apple Group had approximately 161,000 full-time equivalent employees⁷.
- (8) Apple's business model is based on a vertically integrated ecosystem centred around its hardware devices, including iPhones and iPads, from which it generates the main source of its revenue. Apple operates various services, including the App Store, which allows customers to discover and download apps, as well as Apple Pay. Apple sells its products worldwide through its retail stores, online stores, as well as through third-party cellular network carriers, wholesalers, retailers, and value-added resellers. In addition, Apple sells a variety of third-party products and services compatible with Apple products, including application software and various accessories and peripherals, through its online and retail stores to consumers, businesses, and governments worldwide. Apple manages its business on the basis of geographic reporting segments including the Americas, Europe, Japan, Greater China, and the rest of Asia Pacific. Apple's total market capitalisation reached almost three trillion USD, in May 2024⁸.
- (9) Apple also offers payment services on its Apple Wallet app ('Wallet')⁹, including Apple Pay, a cashless payment service¹⁰, Apple Card, a co-branded credit card available in the United States, and Apple Cash, a digital card stored in Wallet available in the United States¹¹.
- (10) Mobile wallets are digital containers accessed through mobile devices, allowing customers to store card information and credentials used for financial and non-financial services. On iOS devices, users can securely store their credit or debit card in the Wallet. This allows them to use Apple Pay for making contactless payments, both in-store and online (e-commerce). Wallet and Apple Pay are integrated, and users cannot complete mobile payments through Apple Pay without using Wallet. For these reasons, Apple is a mobile wallet provider which facilitates payments through a smart mobile device¹².

⁷ Apple's Annual Report (Form 10-K) pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended on 30.09.2023, available at <https://d18m0p25nwr6d.cloudfront.net/CIK-0000320193/faab4555-c69b-438a-aaf7-e09305f87ca3.pdf>.

⁸ On 30 May 2024 Apple's total market capitalization amounted to 2.917 trillion USD. See <https://companiesmarketcap.com/>.

⁹ Apple Wallet is an app developed by Apple exclusively for its own devices running on operating systems iOS and watchOS, that enables users to store credentials of credit and debit cards, transit cards, event tickets, car keys, driver's license, state ID and other.

¹⁰ Apple Pay is closely linked to Apple Wallet. Users use the two apps together to complete mobile payments. Apple Pay and Apple Wallet are jointly considered to meet the criteria of a mobile wallet under the definition presented in section 4.

¹¹ Apple cash is a digital card in Apple Wallet that lets users send and receive money in Apple Messages or Apple Wallet. See <https://www.apple.com/apple-cash/>.

¹² SO, paragraph 13.

3. PROCEDURAL STEPS UNDER REGULATION (EC) No 1/2003

- (11) On 16 June 2020, the Commission opened proceedings pursuant to Article 2(1) of Commission Regulation (EC) No 773/2004¹³. On 2 May 2022, following numerous requests for information ('RFIs') sent to Apple and to banks, other payment service providers ('PSPs'), mobile wallet providers, card schemes, gateways, terminal providers, and merchants pursuant to Article 18(2) of Regulation (EC) No 1/2003, the Commission adopted the SO setting out the preliminary conclusion on the competition concerns related to Apple's refusal to supply the NFC Input on iPhones to app developers. The SO was notified to Apple by letter of 3 May 2022. Apple submitted a reply to the SO on 5 December 2022. Following Apple's request, an oral hearing took place on 14 February 2023.
- (12) On 9 January 2024, Apple submitted commitments (the 'Initial Commitments') to the Commission to meet the preliminary concerns expressed by the SO.
- (13) On 19 January 2024 a notice was published in the *Official Journal of the European Union* pursuant to Article 27(4) of Regulation (EC) No 1/2003 (the 'Article 27(4) Notice'), summarising the preliminary concerns and the Initial Commitments and inviting interested third parties to give their observations on the Initial Commitments within one month following publication.
- (14) On 22 March 2024, the Commission informed Apple of the observations received from interested third parties following the publication of the Article 27(4) Notice. Following several exchanges amending the Initial Commitments, Apple submitted an amended final proposal for commitments on 15 May 2024.

4. PRELIMINARY ASSESSMENT

- (15) This Section is based on the Commission's preliminary concerns as set out in the SO which the Commission continues to have at the time of adoption of this Decision.

4.1. In-store mobile wallets

- (16) A mobile wallet is a software application that enables payments to be authorised with a mobile phone, using digitally encrypted payment cards or other funding sources such as bank transfers. Mobile wallets also facilitate the delivery of value-added services such as loyalty cards, transit cards, contactless tickets for events, access control through digital keys and digital identity. This Decision focuses on mobile wallets offering in-store payment functionalities (that is any payment made at a merchant's industry-certified physical point-of-sale payment terminal). In addition to in-store payments, mobile wallets can be used for other payment purposes such as online purchases or peer-to-peer (P2P) money transfers.
- (17) In order to enable in-store payments, mobile wallets rely on different types of proximity (enabling) technologies (for example, NFC, QR¹⁴). These technologies enable communication between the mobile device and the merchant terminal. NFC is the most widely used technology in the EEA. It is available at almost all

¹³ Commission Regulation (EC) No 773/2004 of 7 April 2004 relating to the conduct of proceedings by the Commission pursuant to Articles 81 and 82 of the EC Treaty (OJ L 123, 27.4.2004, p. 18, ELI: <http://data.europa.eu/eli/reg/2004/773/oj>).

¹⁴ QR is a matrix two-dimensional (2D) barcode containing information, which is accessible upon the scanning (reading) of the code.

point-of-sale ('POS') terminals in stores in the EEA and is the technology adopted by Apple's proprietary mobile wallet on iOS, Apple Pay.

- (18) On iOS, NFC payments are exclusively reserved to Apple Pay. As is common for mobile wallets, Apple Pay functions as a pass-through wallet, requiring users to add existing credit or debit cards to the Apple Wallet, into which Apple Pay is integrated¹⁵. Apple leverages the existing payment infrastructure, by using existing debit or credit cards and NFC-capable POS terminals.

4.2. Relevant markets

4.2.1. General Principles

- (19) The concept of the relevant markets implies that there can be effective competition between the products or services which form part of it, presupposing a sufficient degree of interchangeability between all the products or services forming part of the same market, by reason of the products' or services' characteristics, their prices, and their intended use¹⁶.
- (20) An examination to that end cannot be limited solely to the objective characteristics of the relevant products and services, but the competitive conditions and the structure of supply and demand on the market must also be taken into consideration¹⁷.
- (21) Undertakings are subject to three main sources of competitive constraints: demand substitutability, supply substitutability, and potential competition. From a demand-side perspective, a relevant product market comprises all those products and/or services that are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices, and intended use. Situations of sufficiently strong demand substitution arise when customers would switch easily from the products of the undertaking(s) involved to readily available alternative products¹⁸.
- (22) Supply-side substitution can also be relevant for market definition, in those situations where its constraining effect across the range of products is equivalent to that of demand substitution in terms of effectiveness and immediacy¹⁹. This means that suppliers are able to switch production between products in the range of related products and market them in the short term by incurring only insignificant additional sunk costs or risks when relative prices or demand conditions change²⁰. In the Commission's experience, supply substitution is only relevant for market definition in specific cases. Potential competition is not relevant for the definition of the relevant market.

¹⁵ Pass-through wallets pass on the underlying payment credentials (typically from payment cards or bank accounts) to the merchant (or to the merchant's acquirer) without entering in the possession of funds during the transaction.

¹⁶ Judgment of the Court of Justice of 13 February 1979, *Hoffmann-La Roche v Commission*, Case 85/76, EU:C:1979:36, paragraph 28. See also the Commission Notice on the definition of the relevant market for the purposes of Union competition law, 6789 final, 8.2.2024, point 12.

¹⁷ Judgment of the Court of Justice of 9 November 1983, *Nederlandsche Banden Industrie Michelin v Commission*, Case 322/81, EU:C:1983:313, paragraph 37; Judgment of the General Court of 15 March 2015, *Slovenská pošta v Commission*, T-556/08, EU:T:2015:189, paragraph 112.

¹⁸ Commission Notice on the definition of the 6789 final, 8.2.2024, point 25.

¹⁹ *Ibid.*, point 32.

²⁰ *Ibid.*, point 33.

- (23) Finally, when considering (digital) ecosystems, the Commission may apply similar principles to those applied to after-markets to define relevant product markets. In particular, to determine whether a primary core product and a secondary (digital) product, whose consumption is connected to the core product, constitute multiple markets or a single ‘system market’, the Commission takes into account factors such as network effects, switching costs (including factors capable of leading to customer lock-in) and (single- or multi-) homing decisions²¹.
- (24) 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 other geographic areas, because the conditions of competition are appreciably different in those areas²².

4.2.2. *Relevant product markets*

- (25) In the SO, the Commission preliminarily concluded that the following product markets are relevant for the purpose of the present case: the market for smart mobile devices (Section 4.2.2.1); the market for the NFC Input on iOS (Section 4.2.2.2); and the after-market for provision of NFC (in-store) mobile wallets on iOS (Section 4.2.2.3).

4.2.2.1. The market for smart mobile devices

- (26) The SO preliminarily defined a single primary market for smart mobile devices.
- (27) Smart mobile devices are mobile devices with advanced internet browsing, multimedia, and app capabilities. There are generally two types of smart mobile devices: smartphones and tablets²³.
- (28) With respect to tablets, in the past the Commission left open the question whether there are separate markets for smartphones and tablets²⁴. As most tablets, notably all Apple tablets, do not exhibit NFC capabilities, and NFC in-store payments cannot be carried out with iPads, they are not considered further in this Decision.
- (29) As regards wearable devices, the Commission examined the market for wrist-worn wearable devices and possible sub-segments as a separate market in a past case²⁵. The Commission concluded that, due to their limited functionality and reliance on a connection with a mobile device, wearable devices are extensions of smart mobile devices rather than substitutes.
- (30) Based on the above, the SO preliminarily considered that there is no need to determine whether there are separate product markets for different smart mobile devices.

4.2.2.2. The market for the NFC Input on iOS

- (31) The Commission preliminarily defined a separate product market for the input required for enabling NFC in-store payments on iOS.

²¹ *Ibid.*, point 104.

²² *Ibid.*, point 12.

²³ Commission Decision of 13 February 2012 in Case No COMP/M.6381 – *Google/Motorola Mobility*, footnote 13.

²⁴ Commission Decision of 4 December 2013 in Case No COMP/M.7047 – *Microsoft/Nokia*, paragraph 16.

²⁵ Commission Decision of 17 December 2020 in Case No COMP/M.9660 – *Google/Fitbit*, paragraph 79.

- (32) From a demand-side perspective, no other input or product would represent a substitute for the NFC Input to developers on iOS²⁶. Other technical solutions, such as QR codes or Bluetooth, do not offer a feasible alternative to the NFC infrastructure from a developer perspective²⁷, and therefore cannot be regarded as part of the same NFC Input market. The same applies to NFC solutions which are external to the smart mobile device and not permanently integrated in the device, for example, NFC stickers²⁸, key fobs, bracelets.
- (33) Developers who wish to enable in-store payments by offering a ‘tap and pay’ functionality²⁹ in their mobile apps on Apple devices require and expressly demand access to the NFC Input. In addition, access to the NFC Input on both iOS and Android³⁰ is critical for developing a viable mobile wallet service (multi-homing).
- (34) From a supply-side perspective, Apple is the sole owner of the hardware and software elements of the NFC technology on iOS as the manufacturer of iPhone devices and the developer of iOS. The NFC Input cannot be duplicated. As a result, no provider, other than Apple, can offer the NFC Input on iOS. Providers of NFC solutions external to the device do not represent a competitive constraint to the NFC Input.
- (35) Given the above, the Commission came to the preliminary conclusion that the input required for enabling NFC in-store payments on iOS is a separate product market and that access to that input can only be provided by Apple.
- 4.2.2.3. The after-market for the provision of NFC (in-store) mobile wallets on iOS
- (36) The SO preliminarily defined a separate market for NFC (in-store) mobile wallets on iOS, secondary to the primary market for smart mobile devices.
- (37) The Commission preliminarily considered that, from a consumer perspective, the secondary market for NFC (in-store) mobile wallets constitutes a separate product market from the primary market for smart mobile devices. This is based on the findings that iOS users are locked into the ecosystem: consumers can neither switch to an alternative mobile wallet provider, nor reasonably switch to an alternative smart mobile device in reaction to changing conditions in the market for provision of NFC (in-store) mobile wallets on iOS. Therefore, there is no single unified market (or system market) comprising both products³¹.
- (38) The SO further examined whether NFC (in-store) mobile wallets belong to the same market as payment cards. Many NFC (in-store) mobile wallets rely on

²⁶ See for instance, [Bank] response to the Commission’s request for information of 03 October 2019.

²⁷ See for instance, [Bank] response to the Commission’s request for information of 03 October 2019. [Mobile Wallet Provider] response to the Commission’s request for information of 28 October 2021.

²⁸ NFC stickers are a smaller size version of a regular contactless card. For example, they can be attached to the mobile phone case or be part of a key fob. Among other things, the sticker on smartphones with NFC and an active integrated Mobile Wallet (for example, Apple Pay with enrolled card), means that the NFC terminal at POS could detect both payment options and this could cause problems to process the payment.

²⁹ ‘Tap and pay’ is a way for customers to pay at a POS terminal or card reader using NFC technology by tapping or hovering their contactless card or NFC-enabled device over the terminal/reader.

³⁰ Android is a mobile operating system, the proprietary version of which was developed by Alphabet Inc. for smart mobile devices.

³¹ See the Judgment of the General Court of 24 November 2011, *European Federation of Ink and Ink Cartridge Manufacturers (EFIM) v European Commission*, T-296/09, EU:T:2011:693, paragraph 60.

payment card credentials in a digital format to conduct payment transactions and, as such, are not substitutes for payment cards, but conduits for these cards and complementary to them. Payment cards do not provide the convenience³², added security³³, and other services that mobile wallets provide.

- (39) Mobile wallets offer additional features and benefits compared to payment cards. Due to tokenisation and biometric authentication, wallets offer additional security³⁴. Wallets offer additional convenience by enabling users to integrate payment cards with other cards and numerous features. Important wallet services such as the use of bank accounts as (alternative) funding sources are currently unavailable to payment cards. Wallet providers see themselves in competition with other wallets, not payment cards. For these reasons, the Commission concluded preliminarily that the market for (in-store) mobile wallets is separate from the market for payment cards.
- (40) The Commission further compared NFC (in-store) mobile wallets with wallets using other in-store payment technologies and came to the preliminary conclusion that they are not part of the same market. The replies received from respondents largely confirm that QR, Bluetooth, and magnetic stripes emulation³⁵ do not constitute viable alternatives to NFC for in-store mobile payments³⁶. User experience is significantly better with NFC in terms of speed, ease of use and conditions for use. Merchant adoption in the EEA is significantly better for NFC. Almost all POS terminals in the EEA are NFC ready, while QR solutions require hardware or software adaptation to existing payment terminals. Low adoption levels of unrestricted QR-based mobile wallets on iOS demonstrate the limited competitive pressure they exercise on the only available NFC-based mobile wallet.
- (41) Based on these findings, the Commission came to the preliminary conclusion that NFC (in-store) mobile wallets on iOS constitute a separate market and an after-market of iOS smart mobile devices.

4.2.3. *Relevant geographic markets*

- (42) The SO preliminarily concluded that the market for smart mobile devices and the market for the NFC Input are at least EEA-wide. The provision of smart mobile devices takes place at EEA level³⁷, while Apple's ability to supply the NFC Input does not vary between Member States.

³² 'There are two clear consumer benefits to using mobile wallets: Convenience (...) Speed (...) See (...)', see 'Mobile Wallet Uptake: What the Numbers Say About Consumer Attitudes, Behaviours and Concerns' available at <https://www.ccv.eu/en/2020/mobile-wallet-uptake-what-the-numbers-say-about-consumer-attitudesbehaviours-and-concerns/>, downloaded on 31 March 2022.

³³ See for instance, [Mobile Wallet Provider] reply to the Commission's request for information dated 30 September 2021.

³⁴ Apple positions Apple Pay as 'safer than payment cards', see 'How secure is Apple Pay?' <https://www.apple.com/applepay/#:~:text=Apple%20Pay%20is%20safer%20than,device%20or%20on%20Apple%20servers> [downloaded on 31.05.2024].

³⁵ A phone using this technology can send payment data to a POS terminal that accepts magnetic stripe transactions. Samsung is the main manufacturer using magnetic stripe emulation.

³⁶ See for instance, [Bank] response to the Commission's request for information of 3 October 2019.

³⁷ See Commission Decision of 4 December 2013 in Case No COMP/M.7047 – *Microsoft/Nokia*, paragraph 72; Commission Decision of 13 February 2012 in Case No COMP/M.6381 – *Google/Motorola Mobility*, paragraphs 43 to 47; and Commission Decision of 2 July 2008 in Case No COMP/M.4942 – *Nokia/Navteq*, paragraph 140.

- (43) As regards the market for the provision of NFC (in-store) mobile wallets on iOS, the Commission considered that while Apple rolled out Apple Pay on a country per country basis, these launches took place in several countries simultaneously, and that, since 2019, Apple Pay is available with a uniform product offering in all EEA member countries. A number of banks support Apple Pay in multiple or all EEA member countries.
- (44) Apple Pay enables users to provision multiple cards in the same Wallet both for domestic and cross-border payments. POS payment terminals in the EEA are uniformly equipped, almost all of them enabling NFC payments.
- (45) The Single Euro Payments Area, Directive (EU) 2015/2366 of the European Parliament and of the Council³⁸ and Regulation (EU) 2015/751 of the European Parliament and of the Council³⁹ harmonised the provision of payment services with the objective of facilitating cross-border payments and of enhancing card payments market integration⁴⁰.
- (46) Given the above, the SO preliminarily found the conditions of competition to be sufficiently homogeneous for the market for NFC (in-store) mobile wallets on iOS to be EEA-wide.

4.2.4. *Preliminary conclusion on the relevant markets*

- (47) In the SO, the Commission analysed in-store mobile payments in the primary market of smart mobile devices. The Commission has preliminarily concluded that the NFC Input on iOS constitutes a separate secondary relevant product market since other inputs or technologies are not substitutes and the input is integrated into iOS. Furthermore, the Commission has reached the preliminary conclusion that the after-market for the provision of NFC (in-store) mobile wallets on iOS also represents a separate relevant product market.
- (48) The Commission defined the relevant geographic markets to be at least EEA-wide in scope with regard to the markets for smart mobile devices and the NFC Input on iOS, and EEA-wide in scope with regard to the market for the provision of NFC (in-store) mobile wallets on iOS.

4.3. **Position of Apple on the relevant markets**

4.3.1. *General Principles*

- (49) The dominant position referred to in Article 102 TFEU relates to a position of economic strength enjoyed by an undertaking, which enables it to prevent effective competition being maintained on the relevant market(s) by affording it the power to behave to an appreciable extent independently of its competitors, its customers and, ultimately, consumers⁴¹.

³⁸ Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (OJ L 337, 23.12.2015, p. 35, ELI: <http://data.europa.eu/eli/dir/2015/2366/oj>).

³⁹ Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions, (OJ L 123/1, 19.5.2015, p. 1, ELI: <http://data.europa.eu/eli/reg/2015/751/oj>).

⁴⁰ See, for example, Article 11 of Regulation (EU) 2015/751.

⁴¹ Judgment of the Court of Justice of 14 February 1978, *United Brands and United Brands Continentaal v Commission*, Case 27/76, EU:C:1978:22, paragraph 65; Case 85/76, *Hoffmann-La*

- (50) The existence of a dominant position derives in general from a combination of several factors which, taken separately, are not necessarily determinative⁴².
- (51) One important factor is the existence of very large market shares, which are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position⁴³. That is the case where an undertaking has a market share of 50 % or above⁴⁴, and very clearly so, where market shares exceed 70 %⁴⁵. An undertaking which holds a very large market share for some time, without smaller competitors being able to meet rapidly the demand from those who would like to break away from that undertaking, is by virtue of that share in a position of strength which makes it an unavoidable trading partner and which, already because of this, secures for it, at the very least during relatively long periods, that freedom of action, which is the special feature of a dominant position⁴⁶. The ratio between the market share held by an undertaking and that of its nearest rivals is also a highly significant indicator of possible dominance⁴⁷. Another relevant factor is whether there are technical or economic constraints that might prevent users from switching providers⁴⁸.
- (52) Other important factors when assessing dominance are the existence of countervailing buyer power and barriers to entry or expansion, preventing either potential competitors from having access to the market or actual competitors from expanding their activities on the market⁴⁹. Such barriers may result from a number of factors, including exceptionally large capital investments that competitors would have to match, network externalities that would entail additional cost for attracting new customers, economies of scale from which newcomers to the market cannot derive any immediate benefit, and the actual costs of entry incurred in penetrating the market⁵⁰.

Roche v Commission, EU:C:1979:36, paragraph 38; Judgment of the General Court of 17 September 2007, *Microsoft v Commission*, T-201/04, EU:T:2007:289, paragraph 229.

⁴² Case 27/76, *United Brands and United Brands Continentaal v Commission*, EU:C:1978:22, paragraph 66.

⁴³ Case 85/76, *Hoffmann-La Roche v Commission*, EU:C:1979:36, paragraph 41; Judgment of the General Court of 23 October 2003, *Van den Bergh Foods v Commission*, T-65/98, EU:T:2003:281, paragraph 154.

⁴⁴ Judgment of the Court of Justice of 3 July 1991, *Akzo v Commission*, Case C-62/86, EU:C:1991:286, paragraph 60; Judgment of the General Court of 30 January 2007, *France Télécom SA v Commission*, T-340/03, EU:T:2007:22, paragraph 100; Judgment of the General Court of 29 March 2012, *Telefónica SA v Commission*, T-336/07, EU:T:2012:172, paragraph 150.

⁴⁵ Judgment of the General Court of 12 December 1991, *Hilti v Commission*, T-30/89, EU:T:1991:70, paragraph 92; Judgment of the General Court of 30 September 2003, *Atlantic Container Line and Others v Commission*, T-191/98, T-212/98 to T-214/98, EU:T:2003:245, paragraph 907; Judgment of the General Court of 25 June 2010, *Imperial Chemical Industries v Commission*, T-66/01, EU:T:2010:255, paragraph 257; Case T-336/07, *Telefónica SA v Commission*, EU:T:2012:172, paragraph 150.

⁴⁶ Case 85/76, *Hoffmann-La Roche v Commission*, EU:C:1979:36, paragraph 41; Judgment of the General Court of 22 November 2001, *AAMS v Commission*, T-139/98, EU:T:2001:272, paragraph 51; Case T-65/98, *Van den Bergh Foods v Commission*, EU:T:2003:281, paragraph 154.

⁴⁷ See Judgment of the General Court of 17 December 2003, *British Airways v. European Commission*, T-219/99, EU:T:2003:343, paragraph 210.

⁴⁸ Judgment of the General Court of 11 December 2013, *Cisco Systems, Inc. and Messagenet SpA v European Commission*, T-79/12, EU:T:2013:635, paragraph 73.

⁴⁹ Case 27/76, *United Brands v Commission*, EU:C:1978:22, paragraph 122; and Case 85/76, *Hoffmann-La Roche v Commission*, EU:C:1979:36, paragraph 48.

⁵⁰ Case 27/76, *United Brands v Commission*, EU:C:1978:22, paragraphs 91 and 122.

- (53) Finally, a dominant position on a secondary/after-market can only be established after an analysis of competition on both the after-market and the primary market. In particular, attention should be given to the possibility for customers to adapt their purchasing behaviour at the level of the primary market should an apparent policy of exploitation be pursued in the after-market⁵¹.

4.3.2. *Apple's position in the primary market*

- (54) In the SO, the Commission preliminarily concluded that Apple holds significant market power on the primary market of smart mobile devices. Apple faces limited competition from other smartphone vendors and has been able to sustain high margins on iPhone sales.
- (55) Furthermore, the switching rates of Apple's customers are limited. Users do not generally switch mobile operating system, and, particularly, Apple users exhibit significant levels of brand loyalty⁵². Despite the emergence of specialised apps that help transfer data to another ecosystem, there are still significant costs involved in switching. Such costs include the costs of replacing other devices belonging to the ecosystem⁵³ and the costs of learning a new operating system⁵⁴. The observed low switching levels (consumer lock-in) further suggest that there is limited competitive constraint on Apple, allowing Apple to exercise significant market power over smartphones and the operating system.
- (56) The limited competitive pressure on the primary market, in combination with strong brand loyalty of Apple users, lock-in within the ecosystem, and high switching costs are indicative of significant market power by Apple in the primary market.

4.3.3. *Apple's position in the market for the NFC Input on iOS*

- (57) Apple enables developers to develop and offer to iOS users different apps, taking advantage of hardware and software features of iOS devices. In principle, Apple makes available a developer environment and a set of application programming interfaces ('APIs') necessary for access to hardware and software features on an iPhone. These tools are necessary to develop a fully functioning app. However, among different inputs necessary for offering a specific type of app, that is to say an iOS wallet with NFC payment functionality, Apple does not allow access to

⁵¹ See Case T-296/09, *European Federation of Ink and Ink Cartridge Manufacturers (EFIM) v European Commission*, EU:T:2011:693, paragraph 60, confirmed in case C-56/12 P, *EFIM v Commission*, EU:C:2013:575 paragraph 37.

⁵² See for instance survey carried out by [Mobile Wallet Provider], p 11. In response to Q29: 'What brand would your next smartphone be?' 90 % of surveyed iOS users said it would be an iPhone.

⁵³ See Netherlands Authority for Consumers & Markets (ACM) 'Market study into mobile app stores', 2019, available at <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf> downloaded on 8 February 2022, p 55, which concludes that '*It is harder and more expensive to switch from iOS to Android than the other way around. The higher cost of switching from iOS may be due to the fact that iPhone users may have other devices from Apple, which are incompatible with other brands (...)*'. See also emails obtained by the Wall Street Journal, in which Steve Jobs in 2010 suggest a strategy from Apple to '*tie all of our products together, so we further lock customers into our ecosystem*', see Quartz, 'The Steve Jobs email that outlined Apple's strategy a year before his death', 2014, available at <https://qz.com/196005/the-steve-jobs-email-that-outlined-apples-strategy-a-year-before-his-death/> downloaded on 4 February 2022.

⁵⁴ See ACM 'Market study into mobile app stores', 2019, available at <https://www.acm.nl/sites/default/files/documents/market-study-into-mobile-app-stores.pdf> downloaded on 8 February 2022, p 55: '*Learning costs also play their part in switching behavior. This means that consumers need to get accustomed to and grow familiar with other interfaces*'.

NFC hardware and software functionalities for payments⁵⁵. This NFC Input is specific to iOS. iOS developers cannot rely on the NFC Input available in the Android ecosystem, as it is not compatible with iOS devices. Since no third-party provider of NFC Inputs exists on iOS because a duplication of the hardware and software components is not feasible in practice, Apple has 100 % market share in that market. The SO therefore preliminarily concluded that Apple holds a dominant position in the market for the NFC Input on iOS.

- (58) Apple's dominant position vis-a-vis developers of NFC (in-store) mobile wallets on iOS is neither constrained by competition in the primary market for smart mobile devices nor by technologies other than the NFC. In the SO, the Commission preliminarily concluded that other technologies for proximity payments in stores, such as QR codes, Bluetooth, magnetic stripe emulation or external NFC-enabled stickers, cannot be considered as alternatives to NFC.

4.3.4. *Apple's position in the NFC (in-store) mobile wallet market on iOS*

- (59) In the SO, the Commission preliminarily concluded that Apple enjoys a dominant position on the market for NFC (in-store) mobile wallets on iOS.
- (60) Apple has a 100 % share on the market for NFC (in-store) mobile wallets on iOS at EEA-level, as there were and currently are no alternative NFC wallet solutions available. Currently, Apple Pay is the only mobile wallet with NFC access on iOS. iPhone users using NFC for payments cannot switch to other wallet providers. As Apple does not allow third parties to access the NFC Input on iOS devices, and as there are no alternatives to that input on iOS, it has not been possible for third party NFC wallet providers to enter the market and challenge Apple's market position. Apple has thus created and maintained barriers to entry for providers of NFC wallets for iOS devices, essentially reserving that market to itself.
- (61) In the SO, the Commission has also analysed Apple's market share in a broader, non-NFC specific, (in-store) mobile wallet market on iOS, and preliminarily concluded that Apple also has a dominant position in such market. Based on the evidence collected, [...]and is by far the number one mobile wallet on iOS⁵⁶.
- (62) The Commission also preliminarily concluded that Apple does not face constraints from the consumer side, based on *EFIM* case law⁵⁷. From the iOS consumer perspective, the provision of NFC (in-store) mobile wallets on iOS would constitute an after-market. A potential constraint from consumers on Apple's market power in this after-market, vis-à-vis developers wanting to offer an NFC (in-store) mobile wallet, could result from consumers switching to another primary device in case of a deprivation of third-party wallet services on iOS or a decrease of quality of available wallets. The Commission, however, preliminarily concluded on the basis of consumer surveys that the dominance of Apple in the secondary market for NFC (in-store) mobile wallets on iOS is not

⁵⁵ [Mobile Wallet Provider] response to the Commission's request for information dated 30 September 2021.

⁵⁶ [Apple's internal documents]; see also [Expert report], 2022, p 60.

⁵⁷ Case T-296/09, *European Federation of Ink and Ink Cartridge Manufacturers (EFIM) v Commission*, EU:T:2011:693, confirmed in Case C-56/12 P, *European Federation of Ink and Ink Cartridge Manufacturers (EFIM) v Commission*, EU:C:2013:575.

constrained by competition on the primary market for the sale of smart mobile devices⁵⁸, as:

- (a) consumers cannot make an informed choice between various manufacturers offering smart mobile devices at the time of the device purchase as information about availability of NFC (in-store) mobile wallets on a smart mobile device is generally not available when a smart mobile device purchase decision is taken;
- (b) consumers are not likely to make an informed choice as they do not take into account the availability of mobile wallets when choosing a smart mobile device;
- (c) consumers would not adapt their purchasing behaviour in the primary market for smart mobile devices in case of an apparent policy of exploitation in the secondary market for NFC in-store mobile wallets; and
- (d) in any event, consumers would not adapt their purchasing behaviour within a reasonable time.

4.3.5. *Preliminary conclusions on the market position of Apple*

- (63) Based on the above, in the SO the Commission preliminarily concluded that Apple enjoys a significant degree of market power in the market for smart mobile devices, without analysing the question as to whether this position would amount to dominance.
- (64) The Commission also preliminarily concludes that Apple has a dominant position on the market for the NFC Input on iOS and in the market for NFC (in-store) mobile wallets on iOS. This also applies to a plausible wider market of (in-store) mobile wallets on iOS.

4.4. **Conduct subject to the investigation**

4.4.1. *Overview*

- (65) In the SO, the Commission preliminarily concluded that Apple reserves to itself access to the NFC Input for in-store payments on iOS, by making access to NFC for payment transactions exclusively available to its own proprietary payment application, Apple Pay, and preventing third party applications from accessing the NFC Input for in-store payments.
- (66) In the SO, the Commission came to the preliminary conclusion that Apple's conduct of refusing access to the NFC Input infringes Article 102 TFEU and Article 54 of the EEA Agreement, by excluding competing mobile wallet service providers on iOS, thereby preventing innovation and (consumer) choice⁵⁹.

⁵⁸ See paragraph 327 for the relevant criteria based on Case T-296/09, *European Federation of Ink and Ink Cartridge Manufacturers (EFIM) v Commission*, EU:T:2011:693, confirmed in Case C-56/12 P, *European Federation of Ink and Ink Cartridge Manufacturers (EFIM) v Commission*, EU:C:2013:575.

⁵⁹ The SO also considered that the NFC payment infrastructure was not created by Apple, but by banks, terminal providers and payments schemes, following a decade of development.

4.4.2. Legal principles

- (67) Holding a dominant position is not in itself contrary to competition rules. However, a dominant undertaking is under a special responsibility⁶⁰ not to allow its conduct to impair genuine, undistorted competition on the internal market, through recourse to methods different from those governing normal competition⁶¹. Article 102 TFEU prohibits as incompatible with the internal market any abuse, by one or more undertakings, of a dominant position within the internal market or in a substantial part of it, insofar as it may affect trade between Member States.
- (68) The concept of abuse has been defined by the Court of Justice, as ‘*an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and which, through recourse to methods different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition*’⁶². Article 102 TFEU prohibits a dominant undertaking from adopting practices that have an exclusionary effect by using methods other than those that are part of competition on the merits⁶³.
- (69) The Court of Justice also held that the strengthening of the dominant position of an undertaking may be an abuse and prohibited under Article 102 TFEU, ‘*regardless of the means and procedure by which it is achieved*’, and even ‘*irrespective of any fault*’⁶⁴. Furthermore, Article 102 TFEU is aimed not only at practices which may cause prejudice to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure⁶⁵. The Court has held that ‘*competition rules laid down in the Treaty (...) aim to protect not only the interests of competitors or of consumers, but also the*

⁶⁰ The actual scope of the special responsibility imposed on a dominant undertaking must be considered in light of the specific circumstances of each case which show that competition has been weakened (Judgment of the Court of Justice of 17 February 2011, *Konkurrensverket v TeliaSonera Sverige AB*, Case C-52/09, EU:C:2011:83, paragraph 84 and the case-law cited; and Judgment of the General Court of 10 November 2021, *Google LLC and Alphabet Inc. v-European Commission*, T-612/17, EU:T:2021:763, paragraph 165).

⁶¹ Case T-612/17, *Google LLC and Alphabet Inc. v-European Commission*, EU:T:2021:763, paragraphs 150-151; Judgment of the Court of Justice of 6 September 2017, *Intel v Commission*, Case C-413/14 P, EU:C:2017:632, paragraph 135 and the case-law cited.

⁶² Case 85/76, *Hoffmann-La Roche v Commission*, EU:C:1979:36, paragraph 91; Case C-62/86, *Akzo v Commission*, EU:C:1991:286, paragraph 75.

⁶³ Judgment of the Court of Justice of 27 March 2012, *Post Danmark A/S v Konkurrencerådet*, C-209/10, EU:C:2012:172, paragraph 25 and the cited case-law; Case C-413/14 P, *Intel v Commission*, EU:C:2017:632, paragraph 136; Case T-612/17, *Google LLC and Alphabet Inc. -v-European Commission*, EU:T:2021:763, paragraph 152.

⁶⁴ See Judgment of the Court of Justice of 21 February 1973, *Europemballage and Continental Can v Commission*, Case 6/72, EU:C:1973:22, paragraphs 27 and 29; Judgment of the General Court of 12 December 2000, *Aéroports de Paris v Commission*, T-128/98, EU:T:2000:290, paragraph 170.

⁶⁵ Judgment of the Court of Justice of 15 March 2007, *British Airways v European Commission*, Case C-95/04, EU:C:2007:166, paragraphs 106 to 107; and Case 6/72 *Europemballage and Continental Can v European Commission*, EU:C:1973:22, paragraph 26. See also T-612/17, *Google LLC and Alphabet Inc. v European Commission*, EU:T:2021:763, paragraph 153. According to Protocol 27, the achievement of the internal market, as one of the aims of the European Union laid down in Article 3, includes the protection of undistorted competition (OJ C 115, 9.5.2008, p. 309).

structure of the market and, in so doing, competition as such'⁶⁶. According to consistent case-law, the list of abusive practices contained in Article 102 TFEU does not exhaust the methods of abusing a dominant position prohibited by the TFEU⁶⁷.

- (70) The Court of Justice also highlighted that, the fact that a dominant undertaking's abusive conduct has its adverse effects on a market distinct from the dominated one, does not detract from the applicability of Article 102 TFEU⁶⁸.
- (71) The Commission acknowledges that, as a rule, undertakings are free to choose their business partners⁶⁹. Intervention, on competition law grounds, requires careful consideration, where the application of Article 102 TFEU would lead to the imposition of an obligation to supply⁷⁰.
- (72) The concept of refusal to supply covers a broad range of practices, such as a refusal to supply products to existing or new customers⁷¹, refusal to license intellectual property rights⁷² or refusal to grant access to an essential facility or a network⁷³.
- (73) A refusal to grant access to a service, by a dominant undertaking, is capable of constituting an abuse, within the meaning of Article 102 TFEU, if that refusal was likely to eliminate all competition in the market on the part of the person requesting the service, was incapable of being objectively justified, and the service in itself was indispensable to carrying on that person's business, inasmuch

⁶⁶ See Judgment of the Court of Justice of 6 October 2009, *GlaxoSmithKline Services and others / Commission and others*, C-501/06 P, C-513/06 P, C-515/06 P and C-519/06 P, EU:C:2009:610, paragraph 63. See also Judgment of the Court of Justice of 4 June 2009, *T-Mobile Netherlands and Others v Raad van bestuur van de Nederlandse Mededingingsautoriteit*, Case C-8/08, EU:C:2009:343, paragraphs 38 and 39.

⁶⁷ See Judgments in footnote 66 and Judgment of the Court of Justice of 16 March 2000, *Compagnie maritime belge transports a.o. v Commission*, C-395/96 P and C-396/96 P, EU:C:2000:132, paragraph 112.

⁶⁸ Judgment of the Court of Justice of 14 November 1996, *Tetra Pak v Commission* ("Tetra Pak IP"), C-333/94 P, EU:C:1996:436, paragraph 25. In that regard, Judgments of the Court of Justice of 6 March 1974, *Commercial Solvents v Commission*, joined cases 6/73 and 7/73, EU:C:1974:18 and Judgment of the Court of Justice of 3 October 1985, *CBEM v CLT and IPB*, Case 311/84, EU:C:1985:394 provides examples of abuses having effects on markets other than the dominated markets. In Case 62/86, *AKZO v Commission*, EU:C:1991:286 and Judgment of the General Court of 1 April 1993, *BPB Industries and British Gypsum v Commission*, T-65/89, EU:T:1993:31 the Community judicature found certain conduct on markets other than the dominated markets, and having effects on the dominated markets, to be abusive.

⁶⁹ Commission Decision of 24 March 2004 in Case No COMP/37.792 - *Microsoft*, paragraph 547.

⁷⁰ Judgment of the Court of Justice of 6 April 1995, *Radio Telefis Eireann (RTE) and Independent Television Publications (ITP) v Commission (Magill)*, C-241/91 P and C-242/91 P, EU:C:1995:98, paragraph 50. See also Case C-418/01, *IMS Health v NDC Health*, EU:C:2004:257, paragraph 35; Case T-201/04, *Microsoft v Commission*, EU:T:2007:289, paragraphs 319, 330, 331, 332 and 336.

⁷¹ Joined Cases 6/73 and 7/73, *Istituto Chemioterapico Italiano and Commercial Solvents v Commission*, EU:C:1974:18.

⁷² Case C-242/91, *Magill*, EU:C:1995:98; and Case C-418/01, *IMS Health v NDC Health*, EU:C:2004:257. Those judgments show that in exceptional circumstances a refusal to license intellectual property rights is abusive. See also Case T-201/04, *Microsoft v Commission*, EU:T:2007:289.

⁷³ See Commission Decision 94/19/EC of 21 December 1993 in Case IV/34.689 *Sea Containers v Stena Sealink – Interim Measures* (OJ L 15, 18.1.1994, p. 8) and Commission Decision 92/213/EEC of 26 February 1992 in Case IV/33.544 *British Midland v Aer Lingus* – (OJ L 96, 10.4.1992, p. 34).

as there was no actual or potential substitute for it⁷⁴. It must be determined whether there are alternatives (substitutes) or whether there are technical, legal or economic obstacles making it impossible or at least unreasonably difficult for any undertaking seeking to operate in the market to create, possibly in cooperation with other operators, alternative products or services⁷⁵. Access is indispensable if, at the very least, the creation of those alternative products or services is not economically viable for production on a scale comparable to that of the undertaking which controls the existing product or service⁷⁶.

- (74) It is not necessary to demonstrate that all competition on the market would be eliminated. What matters is that the refusal is liable to eliminate all *effective* competition and competitors with a marginal presence (in certain niches on the market) cannot substantiate the existence of such competition⁷⁷.
- (75) Additionally, a dominant undertaking may abuse its dominant position in an after-market, by reserving that after-market to itself⁷⁸. Where two markets (the primary market and the after-market) are interdependent, and consumers are locked in the after-market, a dominant firm may use its control over the after-market to promote its own services there and exclude others from that after-market. Therefore, by reserving the after-market to itself, through the exclusion of competitors from that market, a dominant firm may be abusing its dominant position on the after-market. This abuse may take the form of a refusal to deal, which may include the refusal to supply the necessary technical and interoperability information needed by potential new firms to enter the after-market.

4.4.3. *Application to this case*

- (76) The hardware feature of the NFC Input embedded into iOS devices allows for two-way communication between the NFC terminal and NFC controller and enables to request permission from users to access the NFC antenna. The SO preliminarily considers Apple's refusal to grant access to the NFC Input to competing providers of NFC (in-store) mobile wallets on iOS as an abusive refusal to deal⁷⁹ on the NFC Input market and/or the market for NFC (in-store) mobile wallets on iOS. The NFC Input is indispensable to (rival) providers of NFC (in-store) mobile wallets on iOS, as no actual or potential substitutes exist, and such refusal does not appear objectively justified. Additionally, the refusal is capable of eliminating all competition on the NFC (in-store) mobile wallet market on iOS. The SO concludes the same to be true in a potential broader market for all

⁷⁴ Judgment of the Court of Justice of 26 November 1998, *Oscar Bronner GmbH & Co. KG v Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG* (Bronner), C-7/97, EU:C:1998:569, paragraph 41.

⁷⁵ *Ibid.*, paragraphs 43 and 44.

⁷⁶ *Ibid.*, paragraph 45.

⁷⁷ Case T-201/04, *Microsoft v Commission*, EU:T:2007:289, paragraphs 563 to 564.

⁷⁸ See Commission 2005 Discussion Paper on the application of Article 82 of the Treaty to exclusionary abuses, paragraph 264. For an example, see Commission Decision of 13 December 2011 in Case No COMP/AT.39692 – *IBM Maintenance Services*, where it was found that the undertaking may have abused its dominant position on an after-market for certain inputs required for the maintenance of IBM mainframes hardware and Operating System.

⁷⁹ Refusal to supply the necessary NFC-related technical and interoperability information needed by developers of NFC mobile wallets to develop, enable, and offer to iPhone users alternative wallets with integrated NFC payment function.

(in-store) mobile wallets on iOS, given the lack of viability of other technologies for mobile in-store payments in the EEA.

- (77) In the alternative, the SO preliminarily concludes that, regardless of the existence of a separate NFC Input market, Apple engaged in an abusive practice of refusing to deal, by reserving the after-market for NFC (in-store) mobile wallets on iOS to itself. As described in Section 4.2.2.3 of this Decision, the after-market for NFC (in-store) mobile wallets on iOS is distinct from the primary market for smart mobile devices. The two markets are interdependent, consumers are locked in once they join the iOS ecosystem, and the NFC Input is indispensable for rival providers of NFC (in-store) mobile wallets on iOS.
- (78) Indeed, NFC is the only technology universally accepted for contactless payments in stores in the EEA. While other technologies for mobile wallets exist, such as QR and Bluetooth, the SO preliminarily concludes that these are not viable substitutes for NFC in the EEA⁸⁰. These technologies are usually based on domestic payment schemes, thus affected by barriers to interoperability, precluding EEA cross-border scaling and reach. The SO also preliminarily concludes that this is unlikely to change in the near future.
- (79) The NFC technology is the only commonly established standard for in-store mobile payments in the EEA, with evidence indicating that almost all POS terminals sold in Europe in recent years are NFC ready⁸¹ (and very low QR and Bluetooth deployment), supported by card schemes, widely accepted by EEA merchants, and a standard feature on most smartphones⁸² (on iPhones since 2014)⁸³. Since interoperability between existing payment terminals and NFC-enabled mobile devices is ‘*ensured through standardisation*’⁸⁴, introduction of a new NFC (in-store) mobile wallet would not require any changes to payment terminals or other elements of the payment infrastructure. Deployment of alternative payment solutions is costly, and demand is very limited, given the ubiquitous, secure, and seamless NFC payments infrastructure.
- (80) The SO preliminarily concludes that NFC payments are also faster, more convenient, more seamless and thus more user friendly, [...] ⁸⁵ compared to QR and Bluetooth payment solutions. Furthermore, mobile wallets using QR or Bluetooth can be suppressed by Apple Pay at the POS, further degrading user experience.
- (81) The SO also preliminarily concludes that indirect NFC access via Apple Pay (that is, solely allowing customers to use payment cards⁸⁶ in a tokenised form, on an

⁸⁰ Both on a smart mobile device (as access point for cardholders/users to the payment infrastructure) and the retail payment infrastructure itself (utilised by merchants).

⁸¹ Adhering to the EMV Contactless card payments standards.

⁸² Estimates placed the 2020 numbers of mobile devices with NFC world-wide at around 2 billion (see Fresh SmartPhone Statistics and What They Mean For You, NFC And The World, available at nfc-forum.org).

⁸³ Apple, ‘Compatible iPhone models, iPhone models with Face ID, iPhone models with Touch ID’, except iPhone 5s, available at <https://support.apple.com/en-gb/102896>.

⁸⁴ Commission Decision of 18 January 2018 in Case No COMP/M.8306 – *Qualcomm / NXP Semiconductors*, paragraph 136.

⁸⁵ See for instance, [Apple’s internal document], [Mobile Wallet Provider] response to the Commission’s request for information of 9 February 2022.

⁸⁶ Importantly, non-card-based wallets such as account-based wallets cannot even join Apple Pay, since the latter only functions with tokenised card credentials. Most PSPs that provide an NFC-

iPhone) does not allow mobile wallet developers to create their own mobile wallet solutions, subjecting them to Apple Pay [...], stifling innovation and consumer choice⁸⁷. The SO also found that offering an NFC-based payment solution on both Android and iOS (multi-homing) is essential for a significant number of in-store mobile wallet providers, as only reaching both Android and iOS users enables commercial viability⁸⁸.

4.4.4. Preliminary conclusions

- (82) Apple has full control over the NFC (in-store) mobile wallet market on iOS, given its control over the hardware and software features on iOS and considering that its competitors require access to NFC. As there are no actual or potential substitutes to the NFC Input on iOS devices, and since the NFC is the only proximity payment standard enabling effective mobile wallet services, the SO preliminarily concluded that access thereto is indispensable to mobile wallet providers on iOS⁸⁹. The fact that most banks have joined Apple Pay to enable in-store mobile payments for their cardholders, rather than developing unrestricted own solutions based on alternative technologies, supports this conclusion. The SO preliminarily concluded that Apple's refusal to grant access to the NFC Input to competing providers of NFC (in-store) mobile wallets on iOS as an abusive refusal to deal on the NFC Input market and/or the market for NFC (in-store) mobile wallets on iOS.
- (83) In the alternative, the SO preliminarily concluded that by reserving the NFC (in-store) mobile wallet after-market for itself through the exclusion of competitors from that market, Apple is abusing its dominant position on the after-market for NFC (in-store) mobile wallets on iOS.
- (84) Consequently, the SO preliminarily concluded that the Conduct may restrict competition within the meaning of Article 102 TFEU and Article 54 of the EEA Agreement.

4.5. Potential anti-competitive effects

- (85) The General Court has ruled that, *'for the purposes of establishing an infringement of Article [102 TFEU], it is not necessary to demonstrate that the abuse in question had a concrete effect on the markets concerned. It is sufficient in that respect to demonstrate that the abusive conduct (...) tends to restrict competition, or, in other words, that the conduct is capable of having, or likely to have, such an effect'*⁹⁰. The Commission has to demonstrate at least potential

⁸⁷ based solution on Android because NFC is far more widespread and considered superior, joined Apple Pay on iOS as they consider it indispensable to offer an NFC-based solution across platforms. Several stakeholders noted that the NFC limitation on iOS devices precluded the creation of mobile wallets with EEA cross-border reach and/or merchant acceptance. Others chose either to discontinue their NFC payment functionality in Android devices, given lack of reach of iOS customers (particularly valuable) and the associated cost-to-benefit ratio of running a purely Android-based solution, or not to create one altogether, for the same reasons.

⁸⁸ See for instance, [Mobile Wallet Provider] response to the Commission's request for information of 1 September 2021; [Mobile Wallet Provider] response to the Commission's request for information of 28 October 2021.

⁸⁹ NFC Input is also indispensable in the plausible broader market for in-store mobile wallets.

⁹⁰ Case T-219/99, *British Airways plc vs. Commission of the European Communities*, EU:T:2003:343, paragraph 293; and, Case T-301/04 *Clearstream Banking AG & Clearstream International SA v Commission of the European Communities*, EU:T:2009:317, paragraph 144.

effects attributable to the restrictive conduct. It is however not required to identify actual exclusionary effects or to demonstrate that possible consequences of the elimination or restriction of competition actually manifested themselves⁹¹.

- (86) Article 102 TFEU is aimed not only at practices which may cause prejudice to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure⁹². The SO preliminarily concluded that, since Apple Pay is the only service with access to the NFC Input, Apple's Conduct is likely to restrict competition in the relevant markets, by foreclosing providers of NFC in-store mobile wallets, and therefore affecting the competitive structure of the market. Such Conduct is likely to have significant detrimental effects for consumers.
- (87) The SO preliminarily concluded that the Conduct had actual exclusionary effects, preventing in-store mobile wallets with a payment function and relating innovative features from entering the market. In the light of the strong consumer demand for in-store mobile wallets, market participants developed (or considered developing) proprietary in-store mobile wallets on iOS. As NFC is the industry standard in the EEA and a preferred technology, they intended to develop NFC solutions. However, due to the lack of NFC access, a number of wallet developers abandoned such intentions.
- (88) Because PSPs cannot themselves offer an in-store NFC functionality on iOS, while iOS users are typically highly affluent bank clients who demand in-store mobile wallets solutions, most PSPs had to enable NFC access for their cardholders through Apple Pay. PSPs that enable provisioning of their payments cards in Apple Pay have to enter into an [...] ⁹³ [...].
- (89) For in-store mobile wallet developers who do not issue payment cards (non-PSP developers), joining Apple Pay is not an option, as Apple does not allow integration with Apple Pay of a funding source other than a credit or debit card. As a result, these providers are entirely foreclosed from being present in the market for NFC (in-store) mobile wallets on iOS.
- (90) The SO preliminarily concluded that Apple's conduct is likely to harm consumers by reducing choice and hindering innovation. iOS users in the EEA cannot choose a mobile wallet, as all EEA-wide NFC (in-store) mobile payments on iOS are carried out through the sole NFC payment solution Apple Pay, whereas on Android, consumers have a choice between a number of different NFC wallets. PSPs and other in-store mobile wallet providers indicated that Apple's refusal to grant them NFC access prevents them from offering innovative services and products on iOS, such as rewards and discounts, secure card activation, receipt capture tools, spending visualisation, buy-now-pay-later solutions, digital identity solutions, choice of funding source or mobile POS functionality for merchants. Moreover, [...]. Most wallet developers' objective is to multi-home on both iOS

⁹¹ Case C-52/09, *Konkurrensverket v TeliaSonera Sverige*, EU:C:2011:83, paragraphs 64 and 65; Case T-612/17, *Google LLC and Alphabet Inc. -v-European Commission*, EU:T:2021:763, paragraphs 440 to 443.

⁹² Case C-95/04 P, *British Airways v European Commission*, EU:C:2007:166, paragraphs 106-107; Case 6/72, *Europemballage and Continental Can v European Commission*, EU:C:1973:22, paragraph 26. While Article 3 TFEU mentions as one of the aims of the European Union the achievement of the internal market, the achievement of the latter according to Protocol 27 includes the protection of undistorted competition.

⁹³ Apple's response to the Commission's request for information dated 28 June 2019.

and Android to reach all smartphone users, and it is often not viable not to be present on iOS, which offers significant market potential and revenue opportunities. Developing separate (and different) solutions for the two operating systems is more costly and often not viable and goes against the consistency of the developer's services and brand. Consequently, if they cannot also launch a wallet solution on iOS, many developers may not have an interest in developing it only for Android.

- (91) Finally, the SO preliminarily concluded that [...]. As the only provider of an NFC in-store mobile wallet, Apple does not face competitive constraints to significantly innovate in mobile payments.

4.6. Substantial part of the internal market

- (92) The SO preliminarily concluded that the markets in which Apple holds a dominant position and in which the Conduct took place, that is the markets for the NFC Input on iOS and the market for the provision of NFC (in-store) mobile wallets on iOS, are at least EEA-wide and EEA-wide respectively. The Conduct has thus been taking place in a substantial part of the internal market.

4.7. No objective justification(s)

- (93) The Commission is not required, in the context of a decision under Article 9 of Regulation (EC) No 1/2003, to make a final assessment as to whether the conduct at stake had pro-competitive effects and whether those pro-competitive effects outweigh the anticompetitive effects. Such a decision is based on a preliminary assessment of the anticompetitive nature of the conduct in question. Accordingly, since such a decision does not involve a full and thorough assessment of all anticompetitive effects of that conduct, the Commission is not required to compare those effects with any pro-competitive effects that could be relied on by the dominant undertaking⁹⁴.
- (94) While the SO preliminarily concluded, on the basis of detailed evidence, that Apple failed to adequately demonstrate that its refusal to supply the indispensable NFC Input is objectively justified, the question whether the Conduct would satisfy the conditions for objective justifications is irrelevant for the purposes of this Decision, which is adopted pursuant to Article 9(1) of Regulation (EC) No 1/2003.

4.8. Effect on trade between Member States

4.8.1. Principles

- (95) An abuse of a dominant position affects trade between Member States when it is capable of influencing, either directly or indirectly, actually or potentially, the pattern of trade in goods and services between Member States⁹⁵. It must be foreseeable with a sufficient degree of probability on the basis of a set of objective factors of law or fact that the practice in question has an influence, direct or indirect, actual or potential, on the pattern of trade between Member States⁹⁶.

⁹⁴ See, to that effect, Case C-132/19 P, *Groupe Canal+ SA*, EU:C:2020:1007, paragraphs 56 to 60.

⁹⁵ Judgment of the Court of Justice of 21 January 1999, *Bagnasco v BNP and others*, joined cases C-215/96 and C-216/96, EU:C:1999:12, paragraph 47.

⁹⁶ Judgment of the Court of Justice of 9 July 1969, *Franz Völk v Établissement J. Vervaecke*, Case 5/69, EU:C:1969:35, paragraphs 5 to 7; Case 322/81, *NV Nederlandsche Banden Industrie Michelin v Commission*, EU:C:1983:313, paragraph 104; Judgment of the Court of Justice of 23 April 1991,

- (96) The Court of Justice held that Article 102 TFEU does not require proof that abusive conduct has appreciably affected trade between Member States, but that it is capable of having that effect⁹⁷. The effect on trade between Member States must be ‘appreciable’. This element requires that such effect must not be insignificant, which is assessed primarily with reference to the position of the undertaking(s) on the relevant product market(s)⁹⁸. The stronger the position of an undertaking, the more likely it is that the effect of a practice on trade between Member States will be appreciable.

4.8.2. *Application to this case*

- (97) In the SO, the Commission reached the preliminary conclusion that the Conduct has an appreciable effect on trade between Member States for the following reasons.
- (98) First, Apple’s economic activities related to smart mobile devices and mobile wallets on iOS are, by their very nature, cross-border in scope. Apple’s licence agreements with developers as well as the Apple Pay Guidelines are the same throughout the EEA and Apple enters into a uniform licence agreement with developers covering mobile wallets in numerous countries.
- (99) Second, the Conduct affects the competitive structure of the internal market by foreclosing competitors operating within the territory of the EEA.
- (100) Third, the Conduct has been implemented in all Member States.
- (101) Fourth, as indicated in Section 4.3.4, in the SO the Commission reached the preliminary conclusion that Apple holds a dominant position in the market for provision of NFC (in-store) mobile wallets on iOS, which is EEA wide. Due to the strength of Apple’s position, the size of relevant markets, and its presence throughout the EEA, Apple’s conduct has an appreciable effect throughout the EEA.

4.9. **Duration of Conduct**

- (102) In the SO, the Commission came to the preliminary conclusion that the exclusionary effects of the Conduct materialised once Apple entered into competition with other mobile wallet service providers on the iOS platform with the launch of Apple Pay. Apple deployed Apple Pay in the EEA between 2015 and 2019. As of June 2019, Apple Pay has been available in all EEA Member States. In the SO, the Commission comes to the preliminary conclusion that at the latest in June 2019 Apple achieved a dominant position on the market for provision of NFC (in-store) mobile wallets on iOS and that the infringement started, at the latest, then.
- (103) In the SO, the Commission preliminarily concluded that the abusive conduct is still ongoing.

Höfner and Elsnér v Macrotron, C-41/90, EU:C:1991:161, paragraph 32; Judgment of the General Court of 7 October 1999, *Irish Sugar v Commission*, T-228/97, EU:T:1999:246, paragraph 170;

⁹⁷ Case 322/81, *NV Nederlandsche Banden Industrie Michelin v Commission*, EU:C:1983:313, paragraph 104; See also joined cases C-241/91 P and C-242/91 P, *Magill*, EU:C:1995:98, paragraphs 69 and 70.

⁹⁸ Case 5/69, *Franz Völk v Établissement J. Vervaecke*, EU:C:1969:35, paragraphs 5 to 7.

4.10. Exclusion of the United Kingdom of Great Britain and Northern Ireland

- (104) Although the United Kingdom of Great Britain and Northern Ireland ('the United Kingdom') withdrew from the European Union as of 1 February 2020, 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 (continued competence), in accordance with 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 Community⁹⁹. The proceedings in this case were opened on 16 June 2020, while the transition period ended on 31 December 2020. Accordingly, the SO also included the United Kingdom and the Commission remains exclusively competent for finding an infringement with regard to the United Kingdom for the period until 31 December 2020.
- (105) Conversely, the Commission does not have competence to adopt acts with binding legal effect regarding the United Kingdom for periods after 31 December 2020. It is therefore precluded from adopting decisions with regard to the United Kingdom, which make binding commitments under Article 9 of Regulation (EC) No 1/2003 to address preliminary concerns set out by the Commission, such as the ones in the present case, insofar as such commitments would have a forward-looking nature since they concern future conduct of Apple. Accordingly, the present Decision does not apply to the United Kingdom.

4.11. Conclusions of the Preliminary Assessment

- (106) In its preliminary assessment in the SO, the Commission has preliminarily identified, in connection with the primary market of smart mobile devices, a separate secondary relevant product market for the NFC Input on iOS and an after-market for the provision of NFC (in-store) mobile wallets on iOS. In the Commission's preliminary conclusion, the markets for smart mobile devices and the NFC Input on iOS are at least EEA wide, while the market for the provision of NFC (in-store) mobile wallets on iOS is EEA wide.
- (107) In its preliminary assessment in the SO, the Commission has come to the preliminary conclusion that Apple abused its dominant position on the NFC Input market on iOS within the meaning of Article 102 TFEU and Article 54 of the EEA Agreement by refusing to supply the NFC Input on iPhones to app developers.
- (108) In its preliminary assessment in the SO, the Commission preliminarily concluded that the Conduct which gave rise to concerns had started, at the latest, on 26 June 2019, was ongoing and had an appreciable effect on trade between Member States.

5. INITIAL COMMITMENTS

- (109) On 9 January 2024, Apple submitted the Initial Commitments, focusing on the creation of an NFC technical solution, enabling access to NFC in Host Card

⁹⁹ 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 (OJ C 384I, 12.11.2019, p. 1).

Emulation mode ('HCE')¹⁰⁰ to third-party mobile wallet and payment service providers ('HCE Developers') and the authorisation of HCE Developers and eligible applications.

- (110) Apple proposed to allow HCE Developers to access and interoperate with the technical infrastructure facilitating NFC in-store payments for EEA iOS users. The technical infrastructure would allow for the emulation of an eligible credential and the communication with a compatible NFC reader to complete an NFC in-store payment. The transmission of data between the application processor and an NFC reader would take place without the involvement of the Secure Element ('SE')¹⁰¹, Wallet, or Apple Pay. HCE Developers would be subject to the same fees as all other app developers, but access to and use of the NFC technical infrastructure would be free of charge.
- (111) The Initial Commitments provide that authorised HCE Developers would be able to deploy HCE payment apps on iOS, and to distribute them in the EEA. Apple would authorise HCE Developers based on the objective, transparent, and non-discriminatory procedure with clear timelines as outlined in the NFC Entitlement Program¹⁰². The HCE solution would be made available on all iPhones capable of upgrading to the latest version and any future version of iOS (currently iPhone XS and later).
- (112) Pursuant to the Initial Commitments, Apple would develop an architecture that enables HCE payment apps to utilise Field Detect¹⁰³, Double-click¹⁰⁴, a Suppression Mechanism¹⁰⁵ when the HCE payment app is open in the foreground, and other relevant APIs documented by Apple as well as Apple's proprietary Software Development Kits available to iOS apps through the Apple Developer Program. HCE Developers would have access to the authentication tools to enable Touch ID, Face ID, and device passcode. Apple would also enable EEA iOS users to change or select an HCE payment app as default for NFC in-store payments. Apple committed to apply the Initial Commitments to all app developers

¹⁰⁰ For mobile payments in Host card emulation ('HCE') mode, the emulation of the contactless card is managed by an HCE app located in the device host (mobile phone memory). Tokenised payment credentials and associated cryptographic keys obtained from the wallet provider servers may be stored in the application memory of the mobile phone. A number of limited use tokens can be pre-stored in the mobile OS to enable the transaction to be completed without network connectivity. These keys are replenished each time the user is connected to a network. For added protection, additional software-based measures, such as white box cryptography and trusted execution environment, can be used. At the time of the adoption of this Decision this mode is applied by mobile wallets operating on Android.

¹⁰¹ The secure element on a device can be either a security chip embedded in the device or SIM card inserted in the device. For mobile payments in SE mode, the SE embedded in the mobile phone stores a payment token to replace the primary account number (PAN). The commands received from the contactless reader will be forwarded to the secure element for processing. This is the mode currently applied by Apple for Apple Pay.

¹⁰² See paragraphs 3.14 to 3.16 of the Initial Commitments.

¹⁰³ Field detect refers to a functionality where a user presents a locked iPhone to an NFC reader, and the iPhone presents the user with the default payment application for contactless presentment upon detecting an NFC field.

¹⁰⁴ Double click refers to a physical gesture of double-clicking the side button (for Face ID devices) or the home button (for Touch ID devices) to launch the default Payment Application for contactless presentment.

¹⁰⁵ A Suppression Mechanism is a functionality which will enable an HCE payment app that is in the foreground to complete the NFC in-store payment without interference by temporarily suppressing Apple Pay or any other HCE payment app that has default access to NFC.

established in the EEA and to all iOS users with an Apple ID registered in the EEA, also while traveling temporarily outside the EEA.

- (113) The Initial Commitments apply for a period of ten years. If, upon the expiry of the ten-year period, Apple is obliged to comply with the requirements of Regulation (EU) 2022/1925 of the European Parliament and of the Council¹⁰⁶ as it relates to payments using the NFC functionality on iPhones, and for as long as Apple's obligations apply, Apple would continue to provide the NFC Technical Solution to HCE Developers¹⁰⁷. A general review clause also confirms the possibility for the Commission to review the commitments in case of a material change in any of the facts on which this Decision is based¹⁰⁸.
- (114) An independent Monitoring Trustee ('Trustee') is to monitor Apple's compliance with the Initial Commitments throughout their duration. Disputes related to decisions on authorisation of HCE Developers on the basis of the NFC Entitlement Program are to be exclusively resolved through the dispute resolution procedure outlined in Annex 2 to the Initial Commitments. All other disputes related to Apple's non-compliance with the commitments are to be resolved through the Trustee¹⁰⁹.

6. COMMISSION NOTICE PURSUANT TO ARTICLE 27(4) OF REGULATION (EC) NO 1/2003

- (115) In response to the publication on 19 January 2024 of the Article 27(4) Notice, the Commission received 53 responses from interested third parties (the 'Market Test').

6.1. Summary of the main respondents' comments during the Market Test and Commission's assessment of the Initial Commitments, considering respondents' comments

- (116) The respondents generally welcomed the Initial Commitments. However, issues were raised regarding the scope, technical details and procedural aspects contained in the Initial Commitments.
- (117) This Section sets out the main observations submitted by the interested third parties in the Market Test and the Commission's assessment of the Initial Commitments in view of these observations.

6.1.1. HCE technology

- (118) Most respondents welcomed Apple's offer to provide NFC access in HCE Mode.
- (119) However, some respondents underlined the importance for developers, with user consent, to be able to access the SE of the device, for payment-related and other purposes. It was argued that future offline payments with a planned central bank digital currency (where digital currency would be routinely transferred between devices without online connectivity) would need to rely on hardware-based

¹⁰⁶ Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) (OJ L 265, 12.10.2022, p. 1, ELI: <http://data.europa.eu/eli/reg/2022/1925/oj>).

¹⁰⁷ See paragraph 4.2 of the Initial Commitments.

¹⁰⁸ See paragraph 4.4 of the Initial Commitments.

¹⁰⁹ See paragraphs 5.1 to 5.2 of the Initial Commitments.

solutions, such as SE. Not having access to the SE would also put HCE developers at a disadvantage compared to Apple Pay, as regards security and user experience of mobile payments.

- (120) Following technical investigation and market responses, the Commission considers SE and HCE comparable and equally effective technologies for the use case of NFC-based payments at POS terminals in stores, where comparable security levels and comparable user experience can be achieved.
- (121) The Commission assessed that HCE is a technology which for many years had been successfully and securely used on Android phones. In these solutions, an HCE payment app and cloud background infrastructure handle and store payment credentials. While this is different from the SE which Apple uses itself for Apple Pay, where payment credentials are stored on a tamper-resistant chip within the iPhone, the Commission concluded that SE and HCE are nevertheless comparable and equally effective technologies for the following reasons.
- (122) HCE-based solutions can achieve comparable and equally effective levels of security, by utilising tokenisation, limiting usage of tokens or making use of specific cryptography. Like SE, HCE can also enable offline card-based payments, for example by downloading tokens to a device for offline use. As underlined by some respondents, HCE is also cheaper to implement on iOS devices, notably by those wallet developers which are already active on Android. The Commission requested Apple to add a general clause that the commitments are without prejudice to Apple's current or future obligations to make the SE available under other laws and regulations, or for other use cases and functionalities not covered by those commitments which may be, for example, within the scope of Regulation (EU) 2022/1925 or EU laws and regulations aimed to establish and regulate offline payments with central bank digital currencies. For the above reasons, additional modifications regarding the applicable technology for emulating payment cards were not requested from Apple.

6.1.2. *Terminals and additional NFC uses*

- (123) Some respondents expressed concern that Apple had limited the scope of the commitments to specific 'in-store' payments, that is to '*any payment made at a merchant's industry-certified physical point-of-sale payment terminal*'. Respondents argue that making payments by using NFC (in-store) mobile wallets alternative to Apple Pay should be possible also at other types of payment terminals, in particular at mobile devices used by merchants as terminals (so called SoftPOS), to enable third-party payment providers to compete effectively with Apple Pay. The limitation would also allegedly prevent developers from offering central bank digital currency payments, device-to-device payments including offline transactions, open banking payments, peer-to-peer ('P2P') payments, stored value payments, e-commerce payments, unattended payments and NFC payments with non-native web apps. According to some respondents, the commitments should also cover the case when the iOS device functions as a POS, i.e. to receive a payment, as otherwise such functionally similar and relevant use cases would not be covered.
- (124) Respondents further commented that NFC uses should extend beyond payments and Apple should commit to allowing other iOS features to facilitate the same features as can be offered by Apple Pay and Wallet. This should include NFC loyalty cards, access control (for example hotel keys and residential keys), transit (for example contactless tickets at a metro gate), digital identity, as well as

unattended deployments (for example NFC payments for charging of electric vehicles).

- (125) The Commission assessed that the Initial Commitments apply to specific mobile payments use case, that is card-based and account-based NFC payments with iPhones in stores, where an NFC payment terminal is available. To ensure functioning with all NFC terminals, the Commission requested Apple to clarify that the commitments enable users to make payments at all terminals, encompassing also SoftPOS, which are based on industry standard NFC protocols.
- (126) Where the iOS device functions as a POS (i.e. in order to receive payments), the ability of merchants to accept such payments is outside the scope of the commitments. The Statement of Objections was limited specifically to making card-based and account-based NFC payments with iPhones in stores, and consequently did not cover the use of NFC for developing SoftPOS acceptance solutions on iOS. This is however without prejudice to Apple's potential obligation to make necessary acceptance features available to SoftPOS under other instruments, such as those mentioned in recital (121).
- (127) As regards the comments related to extending the scope of the Initial Commitments beyond payments, the Commission considers that the Initial Commitments necessarily focus on remedying the Commission's preliminary concerns expressed in its Statement of Objections, that is to say the possible harm on consumer choice and innovation resulting from the Conduct. Other NFC use-cases such as loyalty cards, load and deploy transit system cards, closed loop transit cards or contactless tickets for events, were not explicitly mentioned by Apple in the Initial Commitments.
- (128) The Commission requested Apple to explicitly acknowledge not to prevent third-party developers from combining the NFC entitlements made available pursuant to the Initial Commitments with other functionalities and use cases.

6.1.3. *Beneficiaries*

- (129) Some respondents argued that software solutions developed by companies established in non-EEA countries should be available to consumers in the Union. The proposed geographic scope would likely exclude such entities from competing with Apple Pay on iOS.
- (130) Regarding the scope, some respondents further pointed out that customers with Apple IDs registered outside the EEA will not benefit from the commitments, even if they have significant links to the EEA, such as visitors, temporary labour migrants and cross border commuters. It was also argued that iOS users residing in the United Kingdom and iOS developers established in the United Kingdom should benefit from the commitments.
- (131) Some respondents also raised concerns that the commitments limit the possibility of technical service providers to develop 'white-label' payment solutions as software development kits ('SDKs'), to be integrated in payment apps distributed by other parties under their name.
- (132) The Commission considers, first, that the Initial Commitments' scope of beneficiaries is appropriate. The Commission notes that Apple's Initial Commitments cover all app developers established in the EEA and all iOS users with an Apple ID registered in the EEA. Going further, Apple will not prevent the use of these apps for payments in stores outside the EEA for users travelling temporarily outside the EEA. On that basis, the Commission considers this scope

of beneficiaries appropriate, but requested clarifications of ‘temporarily’ and the definition of all developers being ‘established’ in the EEA by reference to the case law of the Court of Justice of the European Union.

- (133) As regard the question of applicability of the commitments to the United Kingdom, it is noted that the Commission remains exclusively competent and can therefore adopt a decision finding and sanctioning any possible infringement of Article 102 TFEU in the United Kingdom for the period up to 31 December 2020¹¹⁰. However, the Commission cannot currently declare any such possible infringement as ongoing in the United Kingdom, and is not able to make binding commitments under Article 9 of Regulation 1/2003 to redress an anticompetitive behaviour in the United Kingdom, insofar as such commitments would have a forward-looking nature since they concern future conduct of Apple with regard to the United Kingdom territory.
- (134) Second, the Commission requested from Apple that technical service providers should be able to develop ‘white-label’ payment apps, which can then be distributed by other parties under their trademark or brand.

6.1.4. Eligible devices

- (135) A large number of respondents pointed out that the commitments should extend to other devices offered by Apple, such as iPads, Apple Watches, MacBooks, Apple Vision Pro and possibly future devices to be introduced into the market during the term of validity of the Initial Commitments.
- (136) In that regard, the Commission noted that the seamless separate setting of defaults for wallets on iPhones and through Apple Pay on Apple Watch is included in the Initial Commitments. Moreover, further to those commitments, Apple will not interfere with users setting defaults for their payments with an iPhone and the Apple Watch.
- (137) By contrast, the Commission considered the scope of the SO to be limited to iPhones and did not request Apple Watch, iPad, MacBook, Apple Vision Pro and future Apple Pay-enabled devices to be included in the scope of the Final Commitments on top. This does not exclude the review of this Decision in application of Article 9(2) of Regulation (EC) No 1/2003 if there are significant changes in the facts on which this Decision is based.

6.1.5. NFC Entitlement Programme and eligibility criteria

- (138) Respondents questioned the need for a separate HCE entitlement process in addition to the current process to develop applications for iPhones. It was argued that the proposed process is unnecessarily burdensome on companies who, unlike other app developers, will have to comply with two sets of requirements, the Developer Program License Agreement and the HCE Payments Addendum, and will be subject to Apple’s extensive control of the result. There is no comparable process for access to NFC on Android smartphone devices.
- (139) Numerous respondents contested the requirement that HCE developers must either have a license to offer payment services in the EEA or a valid and binding agreement with a PSP that is licensed or authorised to offer payment services in the EEA pursuant to Directive (EU) 2015/2366 and requested the removal of this requirement. They argued that such conditions are not required by law, that

¹¹⁰ See points (104) and (105) above.

providing mobile wallet services is not a regulated payment service in the EEA and that such services can be and are being provided without a licence. Those respondents argued that the requirement to have agreements with PSP licensees would affect a significant number of wallet operators and would introduce an obligation on the wallet operator to check that the issuer or PSP has a valid licence; it may exclude wallet developers that have agreements with sub-issuers rather than with licensed PSPs directly; it risks limiting the ability of EEA users to add non-EEA payment cards to their wallets; it risks excluding multi-user wallets and developers with a global user base; Apple would have discretion to require insight into agreements with PSP licensees which may include sensitive commercial information, while no such insight exists into Apple Pay agreements; Apple would have sole discretion to determine whether agreements are ‘valid’, creating risk of discrimination. Many wallet operators work under exemptions (for example limited network, limited range) and only certain exemptions have to be notified. Strict processes are already in place through App Store rules and HCE apps will be fully subject to those. It was also argued that banks will not engage in commercial negotiations if wallet developers cannot first demonstrate having access to iOS.

- (140) A number of respondents argued that the broad requirement that a HCE developer must comply with security standards and privacy laws appears unwarranted and unnecessary. Where applicable, developers are bound by mandatory law, and would not be liable for certain issues imposed by Apple under such mandatory laws. Some respondents pointed out that this unclear wording would appear to give Apple undue quasi-regulatory functions to assess compliance with privacy and security laws and grounds to reject NFC entitlements to HCE Developers.
- (141) The Commission assessed the proposed NFC Entitlement Programme, Procedure as well as Apple’s HCE Payments Addendum, which specify the eligibility criteria, requirements and procedural steps for developers who wish to access the NFC controller to deploy HCE payment applications on iOS. In addition, the developers also have to enter into and comply with the Apple Developer License Agreement (as any other app developer on iOS). The Commission accepted Apple’s argument that the separate procedure for access to the NFC Input with detailed requirements and timeline as specified in the NFC Entitlement Programme and Apple’s HCE Payments Addendum contributes to certainty and transparency and allows for a clear monitoring of compliance with the commitments. Therefore, no additional changes were requested in this respect.
- (142) When assessing the requirement for developers to hold a PSP licence or a binding agreement with a PSP licence holder, the Commission established that the PSP licensing requirements are already laid down in regulations and supervised by regulatory bodies, a number of developers offer NFC in-store payment services without holding a PSP licence and that the requirement to have agreements with PSP licensees will affect a significant number of wallet operators and create barriers to entry. Moreover, while the objective behind the alternative requirements was to give access to the NFC Entitlement Programme only to developers with firm and proven intentions to offer mobile payment services, the Commission concluded that other safeguards in the commitments obliging developers to comply with regulation and supervision are less intrusive for achieving the same goal. As a result, the licensing requirement for the grant of the NFC entitlement did not appear proportionate, and the Commission requested Apple to remove it from the commitments.

6.1.6. *Future standards*

- (143) Respondents requested that existing or future protocols related to NFC payments should be supported by Apple. Concerns were raised that if Apple were to depart from future standards, for example by adopting proprietary technology, other apps may not be able to rely on future standards to compete with Apple Pay.
- (144) The Commission requested to include an obligation to employ good faith efforts to continue to update standards even if no longer implemented by Apple Pay, under certain conditions.

6.1.7. *Default settings of mobile wallets*

- (145) Many respondents underlined the crucial importance of users being able to choose and determine their preferred wallet to make payments in a simple way and on equal terms with Apple or another provider. It was highlighted that Apple Pay is embedded in iOS devices and during onboarding Apple presents only Apple Pay without presenting alternatives, which would likely lead customers to set up Apple Pay as a default payment application even when alternatives are available. In addition, Apple should not prevent the downloaded third-party software applications from prompting end users to decide whether they want to set the downloaded, third-party application as their default payment application. To make this effective, third-party applications should be able to access the register of default apps and check the status of defaults. Respondents also requested that the first time a pre-installed payment app is used, users should be offered a choice screen to select alternative default services with the same user experience to avoid self-preferencing.
- (146) In the Commission's assessment, the commitments provide for an option for the users to set up their default payment app for in-store NFC payments. This option will be located within settings allowing EEA iOS users to easily set and change their preferred payment application as the default payment application for NFC in-store payments. In addition, the commitments include a functionality which will enable an HCE payment application opened in the foreground to complete the NFC in-store payment without interference from other payment apps by temporarily suppressing Apple Pay or any other HCE payment application that has default access to NFC. The Commission requested to enable push notifications for informing about the possibility of default settings. The Commission concluded that in conjunction with apps being able to prompt users to set them as default, the requested push notifications for default settings would satisfy the need for communicating with users, without recourse to a specific choice screen. In addition, the Commission requested that third party parity be ensured and secured by the obligation on Apple not to discriminate against eligible HCE payment applications, which will be subject to the same rights and obligations as other applications, as already proposed in the Initial Commitments. After careful assessment, the Commission considers that rules on default are sufficient to address the Commission's preliminary concerns, without any additional need to grant HCE developers access to a register of default apps, which may be out of scope, difficult to implement and of limited added value.
- (147) Defaulting and suppression mechanisms are similar to those implemented on Android, where users are able to select a general default payment application and may also decide that a payment application opened in the foreground temporarily suppresses the general default payment application. The obligations imposed by

these commitments are without prejudice to requirements provided for in other legal acts of the Union, such as Regulation (EU) 2022/1925.

6.1.8. Shortcuts of mobile wallets

- (148) Respondents indicated that any facilities or shortcuts available for easier access to Apple Wallet, such as, for example, certain keyboard or button commands, should be configured by the user on a simple and equal basis for any wallet downloaded to their mobile device, regardless of whether it is developed by Apple or another wallet provider. This configuration should be done either directly or through an option offered in the wallet itself. Additionally, future shortcut mechanisms should be made available for competing wallets when they are introduced.
- (149) The Commission considers that the commitments include an option to associate Double-click with a new HCE app. Apple will also develop an architecture that enables Eligible HCE payment applications to utilise Field Detect. As a result, third-party developers will have access to shortcuts currently utilised by Apple. Access to possible future shortcut features could be considered under Regulation (EU) 2022/1925. For this reason, no additional changes were requested with regard to shortcuts.

6.1.9. Authentication tools

- (150) Respondents welcomed the ability to utilise the same authentication factors as Apple Pay users, such as Touch ID, Face ID and passcode for user verification and NFC payment authentication. However, they indicated that providing such access to future authentication tools is subject to the condition that such access would not compromise the integrity of the operating system, hardware, or software features provided by Apple, creates uncertainty regarding the reliability of such a commitment.
- (151) In the Commission's view, access to the Local Authentication Framework (to enable Touch ID, Face ID and device passcode for their Eligible HCE payment applications on eligible devices) is comprehensive. In the Initial Commitments Apple also committed to enable third parties to utilise future authentication tools that are available to or used by Apple, provided they can be used in a way that does not compromise the integrity of the operating system, hardware, or software features provided by Apple. The technical authentication tools offered were deemed sufficient, subject to an additional request for clarification from Apple that other features besides the Local Authentication Framework will be available to developers, if applicable under the regulatory framework of Regulation (EU) 2022/1925. In addition, Apple was requested to specify that third parties will be allowed to use future authentication tools (or other features under Regulation (EU) 2022/1925) that are available to or used by Apple Pay on eligible devices.

6.1.10. Ongoing requirements and obligations for developers

- (152) Some respondents argued that a general clause demanding that applicants must meet (all) security and industry standards is too broad and should be limited to applicable or relevant standards to avoid uncertainty.
- (153) Respondents pointed out that the obligation for HCE developers to notify Apple of any changes is too far-reaching and should be limited to material changes. In addition, Apple's right to revoke an HCE entitlement on the basis of notified changes should be clarified and be preceded by a possibility for developers to remedy any alleged flaws.

- (154) Respondents also pointed out that Apple's right to review and audit HCE developers' records, documents and information should be limited with a view to protecting HCE developers' proprietary and confidential information. Similarly, respondents requested that Apple should be obliged to protect proprietary and confidential information, source code and sensitive data in the same way that it obligates developers.
- (155) Some respondents noted that the obligation to report all security incidents to Apple is burdensome and covering an overly wide scope of situations. They therefore proposed that the obligation should apply only to certain situations, thus creating a threshold. They also indicated they would appreciate if corresponding reporting obligations existed also on Apple's side.
- (156) The Commission found the requirement that HCE developers must meet security standards and privacy requirements and comply with industry standards reasonable, but requested to limit the obligation to 'applicable' standards for the purpose of proportionality and clarity.
- (157) As to developers' duty to notify any material changes and Apple's right to revoke an HCE entitlement on the basis of notified changes, the Commission assessed that under the Initial Commitments Apple is obliged to substantiate the revocation in order to be prevented from using this right arbitrarily for insignificant changes. The Commission further requested an obligation to substantiate requests for resubmission of applications. The Commission also requested Apple to comply with the same industry standard specifications as developers and to protect confidential information obtained in the context of an audit.

6.1.11. No hidden fees

- (158) Respondents emphasised that the general obligation to make the NFC Technical Solution available free of charge must not be circumvented by other types of fees, costs or increases in developer fees, either directly or indirectly.
- (159) Pursuant to the Initial Commitments, the HCE entitlement is free of charge. The Commission considers this to be without prejudice to other fees, universally applicable to developers present on Apple's platform. At the same time, the circumvention clause should ensure that the free of charge requirement is not offset directly or indirectly by other types of charges, costs or increases in developer fees. In the Commission's view these safeguards adequately address respondents' concerns.

6.1.12. Monitoring Trustee

6.1.12.1. Appointment of Trustee

- (160) Respondents raised concerns over the length of the Trustee's appointment procedure. Respondents also underlined the importance of ensuring the Trustee's independence, under the Commission's supervision.
- (161) Respondents suggested that the Trustee should not be deemed to have a conflict of interest if it took appropriate safeguards. Respondents criticised Apple's rights to replace the Trustee without seeking approval from the Commission and pointed out that the replacement of a Trustee should be subject to the same procedure as the appointment of the Trustee.
- (162) The Commission considers that the Initial Commitments provide for an appointment procedure for the Trustee which is standard in Commission

decisions. In principle, the Commission did not consider it necessary to amend the Initial Commitments in this regard.

- (163) However, pursuant to the Market Test replies, the Commission considered it relevant to request Apple to provide that the Trustee will not be deemed to have a conflict of interest if the Trustee and Apple took appropriate ringfencing measures.
- (164) The Commission also considered it appropriate to request Apple to extend the procedure for appointment of the Trustee to the procedure for replacement of the Trustee.

6.1.12.2. Role and powers of the Trustee

- (165) Respondents indicated that the commitments should clarify that all the provisions of the commitments are within the scope of the Trustee's mandate, except for disputes related to decisions on the application of the eligibility criteria to the NFC entitlement program.
- (166) Respondents pointed out that developers should be able to submit a written complaint to the Trustee also with respect to concerns relating to circumvention.
- (167) Some respondents proposed to shorten the term of the Trustee's reporting obligations to two months instead of six months, at least for the first two years.
- (168) Respondents also submitted that Apple's confidential information shared by the Commission with the Trustee, should also be shared with the Trustee's advisors.
- (169) The Commission considers that the Trustee is in charge of supervising all commitments, and complaints from developers also cover issues relating to circumvention. The Commission did not consider it necessary to amend the Initial Commitments in that respect.
- (170) As regards the Trustee's reporting obligations, the Commission noted that semi-annual reporting is standard in Commission decisions and therefore did not request any amendment of the Initial Commitments in that regard.
- (171) The Commission agreed with the Market Test replies on sharing confidential information proprietary to Apple with the Trustee's advisors and requested that the Initial Commitments be amended in that respect.

6.1.13. *Dispute Resolution Mechanism*

6.1.13.1. Procedure

- (172) Respondents expressed concern over Apple's involvement in the dispute resolution procedure, which in their view could create uncertainty for developers in terms of outcome and resolution time.
- (173) The Commission agreed with the Market Test responses with regard to limiting Apple's role in the dispute resolution procedure and requested the inclusion of additional Commission consultations in the commitments.

6.1.13.2. Appeal Board members

- (174) Respondents expressed their concern about the fact that the members of the Appeal Board are appointed and remunerated by Apple and called for Commission and the Trustee involvement.
- (175) Respondents also considered that the Commission should have a formal right to approve the Appeal Board members and that the commitments should provide for

a cooling-off period for former and future Apple employees seeking to be appointed as members. Respondents also requested that the Commission determines conflicts of interest.

- (176) With the view to providing additional independence safeguards for the Appeal Board, the Commission considers that additional Commission involvement would be needed as part of the Appeal Board appointment procedure.

6.1.13.3. Duration of Dispute Resolution Mechanism

- (177) A large number of respondents pointed out that the dispute resolution procedure needs to be considerably accelerated.
- (178) The Commission agreed with the Market Test responses with regard to reducing deadlines in the dispute resolution procedure. Apple was requested to shorten certain deadlines relevant for the Dispute Resolution Mechanism.

6.1.13.4. Finality of decisions by Appeal Board

- (179) Respondents submitted that the dispute resolution procedure detailed in Annex 2 to the Initial Commitments would be exclusively for matters related to NFC entitlements and would therefore exclude the judicial process, going against effective judicial protection¹¹¹.
- (180) The Commission accepted that decisions of the panel specified in Annex 2 to the Initial Commitments are final and binding arbitral awards, with the understanding confirmed by Apple that an exceptional court review on a question of law arising out of an arbitral award, in particular regarding possible violations of public policy, including fundamental provisions of Union law and fundamental rights, is possible.

6.1.14. *Duration of the commitments*

- (181) Respondents pointed out that the ten-year duration of the commitments is too short and creates investment uncertainty for developers. In addition, due to a large number of different players that have to invest in the development of new payment technologies, NFC will likely still be the dominant technology or at least very highly relevant for many merchants over the next decade.
- (182) The Commission assessed that a ten-year commitments period has been applied in a number of its previous decisions, also regarding the digital sector. It considered it proportionate to ensure effective entry into the market in the present case. Taking into account the significant development efforts required for mobile wallets developers, the Commission considered that a ten-year duration still allowed for sufficient time for developers to apply for and fulfil the requirements of the HCE developer programme, to develop, test and distribute the apps and to gain traction with users. The commitments will apply as of the date upon which Apple receives formal notification of this Decision, allowing for their immediate implementation. Therefore, the ten-year period for the NFC implementation is considered sufficient.

6.1.15. *Anti-circumvention*

- (183) Respondents pointed out that the proposed commitments can only be effective if they are correctly implemented by Apple, and if the NFC entitlements are

¹¹¹ Respondents requested that the second part of clause 32 of Annex 2, stating that Panel decisions cannot be appealed to any judicial court or arbitration tribunal, should be removed.

accepted without obstacles and offer the same opportunities for a positive user experience.

- (184) The Commission considers that a non-circumvention clause has been included in order to ensure the effective implementation of the commitments. Apple's compliance is subject to a comprehensive Monitoring and Dispute Resolution Mechanism.

7. THE REVISION OF THE INITIAL COMMITMENTS, CONSIDERING THE RESPONDENTS' COMMENTS DURING THE MARKET TEST (FINAL COMMITMENTS)

- (185) In response to the comments received pursuant to the Article 27(4) Notice and exchanges with the Commission, Apple modified its Initial Commitments with a final revised proposal on 15 May 2024 that addressed the main issues raised by respondents in the Market Test (the 'Final Commitments').
- (186) The Final Commitments include the following main changes following the Market Test:
- (a) inclusion of the possibility to make payments with HCE payment apps at industry-certified terminals, including at terminals that accept EMVCo payments, such as SoftPOS terminals based on industry standard NFC protocols;
 - (b) addition of a clause clarifying that the commitments are without prejudice to Apple's current or future obligations under other regulations in particular relating to other use cases and functionalities within the scope of the Digital Markets Act (DMA)¹¹² and the implementation of the digital euro¹¹³;
 - (c) an explicit acknowledgement that HCE Developers are not prevented from combining the HCE payment function with other functionalities or use cases;
 - (d) the removal of the requirement for a PSP license or a valid and binding agreement with a PSP for developers applying for an NFC entitlement;
 - (e) clarification that white-label developers will have access to NFC technology and can develop HCE technology to be distributed by other developers;
 - (f) the obligation to update the HCE architecture to comply with evolving industry standards, as long as they are used by Apple Pay, and employ good faith efforts to continue to update standards even if no longer implemented by Apple Pay, under conditions further specified in the Final Commitments;
 - (g) the enablement of developers to prompt users to set up their default payment application and redirect their users to the app and to the default NFC settings page;
 - (h) clarification that security licences/certifications are required only *where applicable*, that Apple commits to comply with the same industry standard

¹¹² Regulation (EU) 2022/1925 of the European Parliament and of the Council on contestable and fair markets in the digital sector, (OJ L 265, 12.10.2022, p. 1-66).

¹¹³ Proposal for a Regulation of the European Parliament and of the Council on the establishment of the digital euro COM/2023/369 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023PC0369>.

specifications as developers and that Apple will protect confidential information obtained in the context of an audit;

- (i) additional Commission involvement in the Appeal Board appointment procedure, as well as shorter deadlines in the dispute resolution procedure;
- (j) clarification that the Trustee will not be deemed to have a conflict of interest if Apple and the Trustee took appropriate ringfencing measures; clarification that the replacement of a Trustee is subject to the same procedure as the appointment of the Trustee; an additional provision that confidential information proprietary to Apple shared by the Commission with the Trustee is also shared with the Trustee's advisors; and
- (k) clarification of the definitions of establishment and temporary travel.

8. EFFECTIVENESS AND PROPORTIONALITY OF THE FINAL COMMITMENTS

8.1. Principles

- (187) The principle of effectiveness requires that the Commission must ensure that the commitments fully address its preliminary concerns, while the principle of proportionality requires that the measures adopted by institutions of the Union must be suitable and not exceed what is appropriate and necessary for attaining the objective pursued¹¹⁴.
- (188) In the context of Article 9 of Regulation (EC) No 1/2003, the application of the principle of proportionality entails, first, that the commitments in question address the preliminary concerns expressed by the Commission in its SO and, second, that the undertakings concerned have not offered less onerous commitments that also address those concerns adequately¹¹⁵. When carrying out that assessment, the Commission must take into consideration the interests of third parties¹¹⁶.

8.2. Application to this case

- (189) As regards the principle of effectiveness, the Final Commitments are considered sufficient to address the Commission's preliminary concerns (see Section 4) for the following reasons.
- (190) First, the Commission's main concern was that Apple reserves to itself access to the NFC Input for in-store payments on iOS smart mobile devices, by making NFC available exclusively to its own proprietary payment application, Apple Pay. Apple has committed to enable third-party app developers to access and interoperate with the NFC Input for the purpose of facilitating NFC In-Store Payments for EEA iOS users without the involvement of Apple Pay or Wallet, which will enable third-party NFC access for payments on iOS. Apple has committed to providing NFC access free of charge, while HCE developers can be subject to the same developer fees as other app developers¹¹⁷. The Final Commitments also ensure that technical service providers shall be able to develop white-label payment apps, which can then be distributed by other parties under their trademark or brand (thereby addressing Market Test respondents'

¹¹⁴ See for instance, Case T-260/94, *Air Inter v. Commission*, EU:T:1997:89, paragraph 144 and Case T-65/98, *Van den Bergh Foods v. Commission*, EU:T:2003:281, paragraph 201.

¹¹⁵ Case C-441/07 P, *Commission v Alrosa*, EU:C:2010:377, paragraph 41.

¹¹⁶ *Ibid.*, paragraph 41.

¹¹⁷ See paragraph 3.1 of the Final Commitments.

concerns)¹¹⁸. This ensures, in principle, access for a broad circle of developers and prevents Apple from discouraging entry of new developers or from monetising it.

- (191) In addition, compared to the Initial Commitments, the Final Commitments remove the requirement for developers to have a licence to offer payment services or have a valid and binding agreement with a payment service provider. Technology enablers are also explicitly allowed to develop solutions for developers¹¹⁹. Similarly, the Final Commitments amend obligations and requirements for developers clarifying that security licences and certifications are required only where necessary¹²⁰. Therefore, the Commission considers the Final Commitments adequately address the preliminary concerns and interests of third parties.
- (192) As indicated above (see section 6.1.1), a careful assessment of the Market Test replies confirmed the available evidence and technical analysis that HCE can be considered as a comparable and equally effective technology as SE with regard to the specific use case of in-store mobile payments at POS terminals. After careful assessment, the Commission considers that the rules on developer access in recitals (190)-(191) are sufficient to address the Commission's preliminary concerns, without a need that HCE developers also have access to the same security information of the device as available to Apple Pay, requested in the Market Test, which may have raised security issues and because Apple Pay's different technical architecture may render the information irrelevant. The Final Commitments include in addition a general clause that the commitments are without prejudice to Apple's current or future obligations to make the SE available under other laws and regulations¹²¹, thereby adequately addressing the Commission's preliminary concerns as well as third parties' interests¹²².
- (193) Second, since Apple has sole control over the iOS ecosystem including the App Store, and the Commission had preliminarily concluded that Apple is dominant in the market for NFC in-store mobile wallets on iOS, the commitments must ensure that other developers are granted effective NFC access and, therefore, can effectively compete with Apple Pay for users on iOS smart mobile devices. To this end, the Final Commitments contain the obligation to enable an easy and seamless way for users to choose third party apps as default for NFC in-store payments and the obligation to allow third-party applications to utilise in principle the same features available to Apple, including Face ID, Touch ID, Field Detect, Double-click, Suppression Mechanism, Local Authentication Framework and

¹¹⁸ See paragraph 3.1 of the Initial Commitments and section 6.1.3.

¹¹⁹ See section 6.1.5.

¹²⁰ See section 6.1.10.

¹²¹ See paragraph 1.3 of the Final Commitments: *"These Commitments are without prejudice to Apple's current or future obligations under other regulations, in particular relating to other use cases and functionalities within the scope of the DMA and the implementation of the Digital Euro"* The ECB submitted a letter on 19/04/2024 providing its observations on the commitments offered by Apple to address the competition concerns at hand. The ECB indicated that for the successful launch of the digital euro, a use case beyond the scope of these commitments, access to the Secure Element (SE) of smart mobile devices would be important, in particular to ensure secure offline peer-to-peer digital euro payments. The Commission acknowledges that there may be other use cases where access to the SE may be required. As explained in para (120) above, these commitments are confined to addressing competition concerns related to the specific use case of enabling NFC mobile wallet payments with iPhones at point of sales ("POS") terminals, for which NFC access in Host Card Emulation ("HCE") mode is proportionate and effective.

¹²² See para (121).

other relevant APIs and SDKs, which are available to iOS apps¹²³. In addition, compared to the Initial Commitments, the Final Commitments contain the obligation for Apple to enable developers to prompt users to set up their default payment application and to redirect their users directly to the app page and later to the default NFC settings page¹²⁴. The Commission considers that the possibility for developers to use push notifications to invite users to set their app as default ensures an adequate user experience while avoiding excessive prompts¹²⁵. Therefore, the Commission considers the Final Commitments are sufficient to address the Commission's preliminary concerns and adequately address third parties' interests.

- (194) Third, the Commission had concerns that the Conduct could harm consumer choice and innovation. Apple has committed to allow HCE Developers to offer the same value-added services as other Developers. In addition, upon the Commission's proposal, in the Final Commitments Apple explicitly acknowledges that it will not prevent third party developers from combining the NFC entitlements under the commitments with other NFC functionalities and use cases¹²⁶. After careful assessment, Apple's explicit acknowledgment has been considered sufficient to address the Commission's preliminary concerns, without a need to extend the definition of "NFC Payment Application" to the same value-added functionalities as utilised by Apple Pay or Wallet¹²⁷. In addition, the Final Commitments extend the scope to payments made with HCE payment apps at industry-certified terminals, including terminals that accept EMVCo payments, such as SoftPOS terminals based on industry standard NFC protocols¹²⁸. Therefore, the Commission considers the Final Commitments sufficient to address the Commission's preliminary concerns and to adequately address third parties' interests.
- (195) Fourth, as proposed by Apple, the Final Commitments include non-circumvention and non-discrimination rules, obliging Apple to ensure parity between Eligible HCE Payment Applications and other Applications¹²⁹. In addition, the Final Commitments also contain the obligation to update the HCE architecture to comply with evolving industry standards as long as they are used by Apple Pay and to employ good faith efforts to continue to update them, under certain conditions, even if no longer implemented by Apple Pay¹³⁰. This will prevent Apple from arbitrarily using standards to disable or deteriorate the services of other wallet developers or making users' choice of other wallets difficult, thereby adequately addressing the Commission's preliminary concerns as well as the concerns and third parties' interests¹³¹.
- (196) Fifth, the Commission considers that the duration of the commitments' application for ten years¹³² enables the effective entry of new competitors into the market of NFC in-store mobile wallets on iOS. It allows for sufficient time for developers to

¹²³ See paragraphs 3.5, 3.8 of the Initial/Final Commitments.

¹²⁴ See paragraphs 3.7-3.8 of the Final Commitments.

¹²⁵ See section 6.1.7.

¹²⁶ See paragraph 3.20 of the Initial/Final Commitments.

¹²⁷ See paragraph 2.36 of the Initial/Final Commitments.

¹²⁸ See paragraphs 2.29 and 2.35 of the Initial/Final Commitments.

¹²⁹ See paragraphs 3.19 and 7.1 of the Initial/Final Commitments and sections 6.1.7 and 6.1.15.

¹³⁰ See paragraph 3.10 of the Final Commitments and sections 6.1.7 and 6.1.15.

¹³¹ See section 6.1.6.

¹³² See paragraphs 4.2 of the Initial/Final Commitments.

apply for and fulfil the requirements of the HCE developer programme, to develop, test and distribute the apps and to gain traction with users¹³³. Moreover, the commitments will apply as of the date upon which Apple will receive formal notification of this Decision¹³⁴, allowing for an effective and immediate implementation of the commitments, sufficient to safeguard market entry.

- (197) Sixth, the Commission considers that in the Final Commitments the non-circumvention clause¹³⁵, the dispute resolution mechanism, with additional Commission involvement and shorter deadlines, as proposed by the Commission¹³⁶, and the powers of the Trustee¹³⁷ with reinforced rules on conflicts of interest, the procedure for replacing the Trustee and the sharing of confidential information with the Trustee's advisors, as proposed by the Commission¹³⁸, together with the measures provided for in Regulation (EC) No 1/2003, namely the reopening of the proceedings pursuant to Article 9(2) of that Regulation, the imposition of a fine pursuant to Article 23(2), point (c), of that Regulation or the imposition of periodic penalty payments pursuant to Article 24(1), point (c), of that Regulation, are sufficient to ensure effectiveness and to provide sufficient safeguards against non-compliance with the Final Commitments¹³⁹.
- (198) Finally, the other elements of the Final Commitments are not addressed in this section of the Decision to the extent they remained unchanged compared to the Initial Commitments and were already considered appropriate, effective, and proportionate in their initial version following the review of the Initial Commitments in section 6.1.
- (199) On this basis, as regards the principle of proportionality, the Commission notes that Apple has not offered less onerous commitments in response to the SO that would adequately and effectively address the Commission's preliminary concerns.

8.3. Conclusion on the effectiveness and proportionality of the Final Commitments

- (200) The Final Commitments are sufficient to address the concerns identified by the Commission in its preliminary assessment.
- (201) Apple has not offered less onerous commitments in response to the SO that also address the Commission's concerns adequately.
- (202) The need to ensure increased deterrence through the imposition of fines has been removed by the submission of the commitments which will be made legally binding and enforceable through the present Decision. This effectively removes the risk of recidivism and has positive effects on the market structure and consumers in the Union.
- (203) The Commission has taken into consideration the interests of third parties, including those of the interested third parties that have responded to the Article 27(4) Notice and considers that the Final Commitments will not hinder the legitimate commercial interests of any third party. The Commission has carefully

¹³³ See section 6.1.14.

¹³⁴ See paragraphs 2.19 and 4.2 of the Final Commitments.

¹³⁵ See paragraphs 7.1 of the Initial/Final Commitments.

¹³⁶ See Annex 2 of the Initial/Final Commitments and section 6.1.13.

¹³⁷ See paragraphs 7.1 6.1 to 6.27, and Annex 2 to the Initial Commitments.

¹³⁸ See paragraphs 6.1-6.27 of the Initial/Final Commitments and section 6.1.12.2.

¹³⁹ See also sections 6.1.12, 6.1.13 and 6.1.15.

analysed all comments received. To the extent that they contribute to meeting the preliminary competition concerns identified in the SO and are proportionate, those comments were discussed with Apple and are reflected in the Final Commitments. Apple will thus put an end to the conduct preliminarily found in the SO to breach Article 102 TFEU.

- (204) This Decision accordingly complies with the principle of proportionality.

9. PERIODIC PENALTY PAYMENTS

9.1. Principles

- (205) Pursuant to Article 24(1), point (c), of Regulation (EC) No 1/2003 and Article 5 of Council Regulation (EC) No 2894/94¹⁴⁰, the Commission may, by decision, impose on undertakings or associations of undertakings periodic penalty payments not exceeding 5 % of the average daily turnover in the preceding business year per day and calculated from the day appointed by the decision, in order to compel them to comply with a commitment made binding by a decision pursuant to Article 9 of Regulation (EC) No 1/2003.

9.2. Application to this case

- (206) The Commission concludes that it is necessary to impose periodic penalty payments, pursuant to Article 24(1), point (c), of Regulation (EC) No 1/2003 and Article 5 of Regulation (EC) No 2894/94 if Apple were to fail to comply with the commitments made binding by this Decision.
- (207) In setting the level of the periodic penalty payments, the Commission considers that they must be sufficient to ensure compliance by Apple with this Decision. The Commission has also taken Apple's significant financial resources into account.
- (208) Despite the Final Commitments, throughout the duration of those commitments Apple is likely to maintain its role as the controller of the iOS ecosystem with full control of the operating system and App Store as well as a vertically integrated NFC-based mobile wallet provider. Due to Apple's market power and its potential conflicts of interest by controlling access to NFC Input on iOS devices and offering an NFC (in-store) mobile wallet itself, it is therefore key to ensure a sufficient level of deterrence to minimise any risk of circumvention, in addition to the monitoring of compliance with the commitments by the Trustee.
- (209) The results of the Market Test also highlighted such risk of circumvention and the need to provide for the imposition of significant periodic penalty payments in case of breach and/or circumvention.
- (210) Consequently, in the event that Apple were to fail to comply with the commitments made binding by this Decision, the Commission imposes daily periodic penalty payment of 5 % of Apple's average daily turnover in the business year preceding such failure to comply.

10. CONCLUSION

- (211) By adopting a decision pursuant to Article 9(1) of Regulation (EC) No 1/2003, the Commission makes commitments, offered by the undertakings concerned to meet

¹⁴⁰ Council Regulation (EC) No 2894/94 of 28 November 1994 concerning arrangements for implementing the Agreement on the European Economic Area (OJ L 305, 30.11.1994, p. 6, ELI: <http://data.europa.eu/eli/reg/1994/2894/oj>).

the Commission's concerns expressed in its preliminary assessment, binding upon them. Recital 13 of the Preamble to Regulation (EC) No 1/2003 states that such a decision should not conclude whether or not there has been or still is an infringement. The Commission's assessment of whether the commitments offered are sufficient to meet its concerns is based on its SO, representing the preliminary conclusion of the Commission based on the underlying investigation and analysis, and the observations received from third parties following the publication of a notice pursuant to Article 27(4) of Regulation (EC) No 1/2003.

- (212) In the light of the Final Commitments offered, the Commission considers that there are no longer grounds for action on its part and, without prejudice to Article 9(2) of Regulation (EC) No 1/2003, the proceedings in this case should therefore be brought to an end.
- (213) The Commission retains full discretion to investigate and open proceedings under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement as regards practices that are not the subject matter of this Decision.

HAS ADOPTED THIS DECISION:

Article 1

The Final Commitments as listed in the Annex shall be binding on the addressees of this Decision as identified in Article 4 for ten years from the date of receipt of notification of this Decision by those addressees.

Article 2

It is hereby concluded that there are no longer grounds for action in this case as regards the conduct covered by this Decision.

Article 3

If the addressees of this Decision fail to comply with the Final Commitments made binding by Article 1, they shall incur a daily periodic penalty payment of 5 % of the average daily turnover of the undertaking to which they belong in the business year preceding such a failure to comply.

Article 4

This Decision is addressed to:

Apple Inc., a corporation organised under the laws of California, United States of America, with its principal place of business at One Apple Park Way, Cupertino, CA 95014, United States of America

and

Apple Distribution International Limited, a company organised under the laws of Ireland, with its principal place of business at Hollyhill Industrial Estate, Hollyhill, Cork, T23 YK84, Ireland.

Done at Brussels, 11.7.2024

For the Commission

(Signed)

Margrethe VESTAGER
Executive Vice-President