

Unclassified

English - Or. English

20 May 2025

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Competition in Mobile Payment Services – Note by Chinese Taipei

18 June 2025

This document reproduces a written contribution from Chinese Taipei submitted for Item 4 of the 146th OECD Competition Committee meeting on 18-20 June 2025.

Antonio CAPOBIANCO
Antonio.Capobianco@oecd.org, +(33-1) 45 24 98 08

JT03566549

Chinese Taipei

1. This paper summarizes recent developments in the domestic mobile payment market, addresses competition issues related to mobile payments, and highlights perspectives of the Chinese Taipei Fair Trade Commission (hereinafter referred to as the ‘CTFTC’) based on its enforcement activities.

1. Background

2. The advancement of communication technologies, combined with the widespread adoption of mobile devices, has gradually shifted consumers’ payment behavior toward mobile payments. This trend became particularly evident during the COVID-19 pandemic, as more people transitioned from cash to mobile payments to minimize physical contact, significantly increasing the usage of mobile payments. Statistics from the Financial Supervisory Commission (the ‘FSC’) indicate that the number of non-cash payment transactions rose by 20.18% in 2024, reaching a total of 8.3 billion transactions. The value of these non-cash payment transactions amounted to NT\$8.3 trillion (approximately US\$255 billion), reflecting an annual growth rate of 14.17%¹. In response to the expanding non-cash payment market, both traditional financial institutions and new market entrants, including e-commerce platforms, telecommunications providers, online gaming companies, and transportation ticketing agencies, have actively entered the mobile payment sector. These entities have leveraged their extensive physical stores and established customer bases to enhance user engagement and develop proprietary payment ecosystems.

2. The development of domestic mobile payment services

2.1. Types of mobile payments

3. Mobile payments, broadly defined, do not refer to specific payment instruments but rather describe a consumer behavior: any payment transaction conducted using a mobile device, such as a smartphone, tablet, or wearable device. Depending on the level of regulatory oversight, mobile payment service providers can generally be categorized into three types: electronic payment institutions, third-party payment processors and mobile wallet service providers.

2.1.1. Electronic payment institutions:

4. ‘The Act Governing Electronic Payment Institutions’ (the EPI Act) defines the business scope of an electronic payment institution (EPI) including acting as an agent to collect and make payments for real-world transactions, receiving stored-value funds, and providing fund transfers between users’ accounts. Classified as financial services businesses, these EPIs are required to hold a license granted by the FSC because the receipt

¹ Financial Supervisory Commission, *Statistics of Credit Card, Cash Card & Electronic Payment Institutions Business Operation as of December 2024*, February 13, 2025, https://www.fsc.gov.tw/en/home.jsp?id=54&parentpath=0,2&mcustomize=multimessage_view.jsp&dataserno=202502130004&dtable=News (accessed April 9 2025).

of stored-value funds involves collecting and storing funds from the general public prior to transactions, as well as facilitating electronic funds transfers between their users' accounts.

5. The Act also specifies that the market entry requirements for an EPI include a minimum paid-in capital of NT\$500 million (approximately US\$15 million), pre-approval for business lines obtained from the competent authority, and incorporation as a company limited by shares. Additionally, EPIs are subject to more stringent regulatory requirements regarding data security, personal information protection and consumer protection.

6. As of January 2025², statistics indicate that the total number of electronic payment users has exceeded 30 million. Currently, there are 29 EPIs approved by the FSC, comprising 9 dedicated institutions and 20 banks. The two leading EPIs, iPASS MONEY and JKOPay, each have more than 6.6 million users.

2.1.2. Third-party payment processors:

7. Third-party payment service processors act as intermediaries, facilitating financial transactions between consumers and merchants. Instead of remitting funds directly to merchants, consumers transfer funds to third-party payment processors, which then disburse the funds to the merchants to finalize the transaction. This payment system is designed to enhance transaction security.

8. Given that third-party payment processors primarily act as agents in facilitating the collection and disbursement of funds for real-world transactions, they are subject to less stringent regulatory oversight compared to the EPIs. They are not governed by specialized business operation permits or minimum paid-in capital requirements. The regulatory authority overseeing third-party payment services is the Ministry of Digital Affairs (the 'MoDA').

9. However, the EPI Act stipulates that when the daily average balance of funds facilitated by a third-party payment processor exceeds NT\$2 billion (approximately US\$60 million), the processor is required to apply for a permit from the FSC to operate as an EPI, thereby becoming subject to more rigorous regulatory requirements.

10. Currently, there are 56 third-party payment service processors³. Among them, LINE Pay, owned by LINE, the largest domestic instant messaging provider, has exceeded the NT\$2 billion threshold. In February 2025, LINE applied to the FSC to operate as an EPI.

² Financial Supervisory Commission, *Statistics of Credit Card, Cash Card & Electronic Payment Institutions Business Operation as of January 2025*, March 13, 2025, https://www.banking.gov.tw/en/home.jsp?id=87&parentpath=0,86&mcustomize=multimessage_view.jsp&dataserno=202503130006&dtable=News (accessed April 9 2025).

³ The first part of Paragraph 1, Article 6 of the Money Laundering Control Act, which was amended and promulgated on January 22, 2024, provides that 'enterprises or persons that provide virtual asset services or third-party payment services are not allowed to provide virtual asset services or third-party payment services if they have not completed money laundering prevention, service capacity registration or login with the central competent authority.' The central competent authority, the Ministry of Digital Affairs periodically publishes the list of the third-party payment processors that have been registered: <https://moda.gov.tw/ADI/services/apply-serivces/energy/5757> (accessed April 9 2025).

2.1.3. Mobile wallet service providers:

11. By leveraging mobile payment technologies and collaborating with credit card issuers, mobile wallet service providers offer services that enable cardholders to complete near-field contactless payments or online transactions with their mobile devices. These providers tokenize cardholders' credit card numbers, generating unique tokens used to process transactions. Essentially, they offer card digitalization services, allowing cardholders to use a virtual version of their physical cards for payments without directly handling the flow of funds. Major players in this sector include Apple Pay, Google Pay and Samsung Pay.

2.2. Developing trends in mobile payments

12. The 2024 Digital Access Survey Report published by the MoDA⁴ indicates that the percentage of citizens aged 12 and over who used mobile payments in the preceding three months increased from 32.8% in 2020 to 48.9% in 2024. Furthermore, an industry analysis report⁵ published by the Market Intelligence & Consulting Institute (the 'MIC') of the Institute for Information Industry revealed that 83.9% of survey respondents used mobile payment tools for transactions, followed by physical credit cards (70.9%) and cash (65.3%). The usage of mobile payments increased by 5% from 2023 to 2024, while other payment methods showed a slight decline.

13. The findings of a 2022 survey on consumers' mobile payment behavior, conducted by the MIC⁶, indicate that two-thirds of consumers used between one and three different mobile payment tools, and 10% reported using six or more. With the widespread adoption of mobile payment functionalities and distribution channels, the usage of mobile payments has increased across both brick-and-mortar stores and online channels. Notably, consumers in physical retail stores showed a strong preference for mobile payments over physical cards - 49% of survey respondents chose mobile payments while 23.7% of respondents used physical cards. The survey also revealed that payment methods selected by consumers may vary depending on transaction scenarios such as NFC contactless or QR code payments.

14. A number of well-established non-financial businesses, such as large retail companies, e-commerce platforms, telecommunications operators and gaming companies, have adopted an embedded finance model, through which they have expanded into the electronic payment services sector or partnered with third-party payment processors. By doing so, these non-financial businesses can seamlessly integrate financial services into their distribution channels, physical stores and online platforms. A notable example is PXPAY Plus, an electronic payment institution launched by PX Mart in 2022. As PX Mart

⁴ The Ministry of Digital Affairs, *2024 Digital Access Survey Report, the Proportion of Citizens Receiving Government Notifications Increased by 8%*, December 2 2024, <https://moda.gov.tw/en/press/press-releases/14558> (accessed April 9 2025).

⁵ Tzu-Li HU, *New Trends in Mobile Payments*, the MIC of the III, February 27 2025, https://www.itis.org.tw/NetReport_Detail.aspx?rpno=425844927 (accessed April 9 2025).

⁶ MIC of the III, *Findings of a survey on Mobile Payments: a gradual decline in the number of mobile payment tools consumer used, consumers aged between 36 and 45 had the lowest usage rate, and an increase of 10% for mobile payment penetration in pharmacies/drugstores and non-chain restaurants*, May 3 2023, <https://mic.iii.org.tw/news.aspx?id=639&List=52> (accessed April 9 2025).

is one of the leading supermarket chains with an extensive store network and a large membership base, PXPAY Plus has experienced rapid growth in both user numbers and transaction volume. By 2024, the number of PXPAY Plus users had reached 5.2 million, representing a 49.3% year-over-year increase.

15. In response to intensifying competition in the mobile payment sector, market participants have launched various features through cross-industry collaborations to gain competitive advantages and enhance user retention. These features may include peer-to-peer money transfer, bill payments, cash withdrawals, ride-hailing, food delivery, and further integration with investment and financial products, which enable users to easily access capital markets and manage their funds more effectively, promoting the concept of financial inclusion. Moreover, since 2024, mobile payment service providers such as JKOPAY, PXPAY Plus, and E.SUN Bank have partnered with Japan's largest payment service provider, PAYPAY, to introduce cross-border payment services. These domestic providers aim to expand their existing payment networks beyond national borders to drive significant growth in transaction volumes.

3. Competition issues in the mobile payment market⁷

16. Competition issues regarding mobile payments can be broadly divided into two categories: 'competition for the market' and 'competition in the market'.

3.1. Competition for the market

17. The digitalization of financial services involves the creation of innovative products through technological advancements, which even replace certain traditional financial products. Mobile payments exemplify recent technological innovation in the financial sector. The introduction of such financial technologies has reshaped the financial landscape by challenging traditional business models and existing regulatory frameworks. Consequently, a specific competition concern following this fintech disruption has emerged: an uneven playing field between financial and non-financial entities, arising from current entity-based regulatory rules. For example, unlike conventional financial institutions, these new fintech companies are not required to obtain a license to launch and deliver mobile payment services, resulting in lower compliance costs. This creates competitive disadvantages for conventional financial institutions. On the other hand, if regulatory restrictions imposed by the government on who can provide innovative financial services such as mobile payments, this may put new entrants at a disadvantage, potentially distorting the process when businesses are competing for a new market. This may be considered inconsistent with the principle of competitive neutrality.

18. The enactment of the EPI Act in 2015 reflects a legislative consensus to address regulatory gaps between electronic payment institutions and traditional financial service

⁷ The Chinese Taipei Fair Trade Commission commissioned a research project in 2018, focusing on potential competition issues relevant to mobile payment services and the application of the competition law. See Chen, Andy C. M., Jo-Hui Chen, and Ya-Lun Yen, 'Payment System and Competition', 2018 Commissioned Research Report 1, English abstract available at: <https://www.ftc.gov.tw/up/oad/1c4e9a47-abfe-45d7-ad37-8f33e2e710c0.pdf>. Please also see relevant studies: Chen, Andy C. M., 'Competition Issues in Payment Systems and the Establishment of Regulatory Structures', Fair Trade Quarterly, Vol. 27, No. 3, pp. 1–40 (2019); and Chen, Andy C. M., Jo-Hui Chen, and Ya-Lun Yen, 'Analysis of the Competitive Conduct in Mobile Payment Systems and its Regulatory Proposa l', Fair Trade Quarterly, Vol. 28, No. 4, pp. 43–101 (2020).

providers in the payment services sector, while also acknowledging the growing competitive significance of these innovative financial instruments⁸. Under the ‘Financial Technology Development and Innovation Experiment Act’ enacted in late 2017, the FSC also established a framework intended to facilitate financial technology experimentation⁹ and promote innovation. However, only a limited number of applications had been approved by the FSC until the end of February 2025, of which very few were submitted by non-financial institutions. This may suggest the persistence of a traditional regulatory mindset. To improve the efficiency of financial services including mobile payments, it is crucial to adopt policies that reduce asymmetrical regulatory burdens and foster a more level playing field between financial and non-financial institutions.

3.2. Competition in the market

3.2.1. Merger

19. The establishment and development of a mobile payment platform involve significant investments in capital and technology as well as interdisciplinary integration, for example information technology, finance and user trust transfer. In this capital and knowledge intensive industry, financial service providers often develop mobile payment platforms through joint ventures with competitors or strategic collaborations with businesses in unrelated sectors, such as telecommunications providers. By doing so, they can leverage each partner’s strengths in its respective domain to generate synergistic effects greater than the sum of their individual contribution. Despite efficiency gains observed in most joint ventures and cross-sector collaborations, such business combinations may also result in permanent and irreversible changes to market structures. To prevent combinations that may produce anti-competitive effects, any transaction that meets the notification thresholds under Article 11(1) of the Fair Trade Act (the ‘FTA’)¹⁰ must be filed to the CTFTC. The CTFTC will then assess whether the overall economic benefits of the proposed combinations outweigh the disadvantages arising from restrictions on competition.

3.2.2. Abuse of dominance

20. The introduction of mobile payments could replace certain traditional services provided by banks and other traditional financial institutions, potentially result in profit erosion for these established institutions. An incumbent with substantial market power may therefore have an incentive to leverage its dominance into adjacent markets directly or

⁸ Chen, Andy C. M, ‘*Competition Issues in Payment Systems and the Establishment of Regulatory Structures*’, Fair Trade Quarterly, Vol. 27, No. 3, pp. 21 (2019).

⁹ Experimentation with innovative financial technologies, commonly referred to as the ‘Financial Regulatory Sandbox’, provides a controlled and secure environment where innovative financial products, services or business models can be tested under ‘light-touch’ regulation, free from existing legal constraints. The Sandbox enables businesses to examine the feasibility and effectiveness of their innovative technologies in a risk-managed environment.

¹⁰ Paragraph 1, Article 11 of the FTA provides that:

‘Any merger that falls within any of the following circumstances shall be filed with the competent authority in advance: 1. as a result of the merger the enterprise(s) will have one third of the market share; 2. one of the enterprises in the merger has one fourth of the market share; or 3. sales for the preceding fiscal year of one of the enterprises in the merger exceeds the threshold.’ amount publicly announced by the competent authority.’

indirectly by obstructing or deterring the entry of mobile payment service providers. Under specific circumstances, such conduct by a dominant incumbent may raise concerns around abuse of dominance, particularly when it is likely to harm competition in adjacent markets.

21. Other business practices associated with the abuse of market power in the mobile payment market include refusal to deal, discriminatory conduct and restrictions on access to essential facilities. When a particular mobile payment platform achieves widespread consumer adoption, its operator tends to gain significant market power accordingly. Certain strategies, such as predatory pricing, exclusive dealing and tying, employed by a dominant platform operator may raise concerns of market foreclosure. Foreclosure may be deemed anti-competitive when it effectively excludes actual or potential competitors from the relevant market, thereby enabling the dominant firm to maintain or strengthen its market position. In the context of competition law, when a mobile payment service provider with substantial market power controls input essential to the provision of mobile payments, its refusal to give access to such inputs to its competitors or its discriminatory treatment of users may also constitute anti-competitive conduct. These essential inputs (or facilities) may include customer data, datasets, intellectual property, hardware and software components or proprietary technical specifications.

3.3. Concerted actions

22. To build a payment platform with greater presence or to promote platform interoperability, businesses that compete within the mobile payment market often engage in coordinated activities. Such activities may include joint research and development, standard-setting initiatives, joint platform operations and collaborations on data sharing, which may fall within the scope of concerted actions under the FTA. Competitors involved in concerted actions may apply for an exemption if they demonstrate that the collaboration generates efficiency gains and is unlikely to harm competition. The CTFTC will evaluate whether the application satisfies the criteria set forth in Article 15 of the FTA¹¹.

23. As market participants face intensified competition driven by the growth of mobile payments, profit margins may be compressed. Given the inherent profit motive of businesses, this may incentivize rival firms to engage in horizontal arrangements aimed at alleviating pressure from such competition. Furthermore, the growth of mobile payments has increased market transparency, enabling competitors to more easily observe each other's business strategies, thereby facilitating the stabilization of horizontal coordination. In short, the more transparent a market becomes, the more difficult it is for individual firms

¹¹ Article 15 of the FTA provides: 'No enterprise shall engage in any concerted action; unless the concerted action that meets one of the following requirements is beneficial to the economy as a whole and in the public interest, and the application with the competent authority for such concerted action has been approved: 1. unifying the specifications or models of goods or services for the purpose of reducing costs, improving quality, or increasing efficiency; 2. joint research and development on goods, services, or markets for the purpose of upgrading technology, improving quality, reducing costs, or increasing efficiency; 3. each developing a separate and specialized area for the purpose of rationalizing operations; 4. entering into agreements concerning solely the competition in foreign markets for the purpose of securing or promoting exports; 5. joint acts in regards to the importation of foreign goods, or services for the purpose of strengthening trade; 6. joint acts limiting the quantity of production and sales, equipment, or prices for the purpose of meeting the demand orderly, because of economic downturn, that the enterprises in the same industry have difficulty to maintain their business or encounter a situation of overproduction; 7. joint acts for the purpose of improving operational efficiency or strengthening the competitiveness of small and medium enterprises ; or 8. joint acts required for the purposes of improving industrial development, technological innovation, or operational efficiency.'

to lower prices without detection. In response to specific enforcement challenges in the mobile payment sector, the CTFTC closely scrutinizes certain concerted practices among service providers, such as price-fixing, market or customer allocation through contracts, agreements or other forms of mutual understanding, as well as the exchange of commercially sensitive information that may facilitate collusion among competitors.

4. Enforcement in the mobile payment market

4.1. Merger

4.1.1. Creation of a joint venture for a PSP TSM platform cleared conditionally¹² by the CTFTC

24. In 2014, Financial Information Service Co., Ltd. ('FISC'), National Credit Card Center ('NCCC') and Taiwan Payments Clearing System Development Foundation ('TPCSDF') proposed the establishment of a joint venture, Taiwan Mobile Payment Co. ('TMP'), to operate a platform for payment service provider trusted service manager ('PSP TSM')¹³. This proposed joint venture constituted a conglomerate merger, as each of the participating entities operated in distinct business segments: FISC in interbank payment clearing and settlement, NCCC in credit card transaction processing, and TPCSDF in check clearing and settlement. None of the merging parties had vertical relationships with the proposed platform, such as supplying security components necessary for its operation.

25. In assessing the impact of the proposed joint venture on market competition, the CTFTC examined the following aspects: whether the formation of the joint venture would substantially lessen competition in the relevant market, and whether its operation would lead to foreclosure or exclusion in the TSM platform market. The entities FISC, NCCC and TPCSDF each held significant market shares in their respective markets. Any misuse of market power by the merging parties could potentially result in a substantial lessening of competition in the TSM platform market, for example by pressuring their trading counterparts to join the PSP TSM platform operated by TMP, or restricting them from using alternative TSM service providers.

26. However, the CTFTC also identified procompetitive effects arising from the proposed joint venture. The entry of TMP was expected to enhance competition in the TSM platform market and facilitate the development of the domestic mobile payment sector. To ensure the realization of efficiency gains and overall economic benefits such as industrial growth and increased access to convenient payment methods, the CTFTC cleared this merger subject to the following conditions: (1) TMP shall not restrict mobile payment service providers from joining other TSM platforms or using services provided by other TSM platform operators; (2) the merging parties shall not require their trading counterparts to join the PSP TSM platform operated by TMP nor compel them to use its services.

¹² Merger decision No. 10300, July 2, 2014, The Chinese Taipei Fair Trade Commission.

¹³ TSM platform is a key part of the fundamental infrastructure in the mobile payment ecosystem. It acts as a central hub that connects various stakeholders, including telecommunications operators, financial institutions, service providers, and consumer-facing platforms. PSP TSM refers to a mobile payment platform that integrates financial payment applications with the TSM. PSP TSM not only provides a platform to ensure consistency but also effectively manages the issuance and management of various financial payment instruments, while also facilitate the integration of financial payment systems by connecting financial institutions with secure element issuers.

4.1.2. Creation of a cross-sector joint venture for mobile payment services cleared unconditionally by the CTFTC

27. In 2021, FamilyMart, E.Sun Bank and PI Mobile Technology Inc. (PI Mobile) proposed the establishment of a joint venture, All Win Fintech Co., Ltd. ('All Win Fintech') to operate electronic payment businesses. The core businesses of the merging parties spanned distinct sectors: convenience store chains, banking and third-party payment services. In addition to their core businesses, all three parties were also active in providing mobile payment services. Accordingly, the CTFTC considered factors relevant to both horizontal and conglomerate mergers in its assessment of the proposed transaction.

28. In terms of the horizontal element of this proposed joint venture, the CTFTC defined the relevant product market as the mobile payment market from the perspective of consumer behavior. The CTFTC found that digital payment methods used by consumers to complete transactions for goods or services were considered substitutable from a consumer perspective, including electronic payments and third-party payment services. The CTFTC concluded that mobile payment services should not be segmented into different product or service categories based on their regulatory frameworks or legal definitions.

29. When assessing the impact of the proposed joint venture on the mobile payment market, the CTFTC found that the merging parties provided differentiated mobile payment services with distinct market positioning, each targeting identifiable customer segments. Moreover, the investigation showed that consumers could easily switch among mobile payment tools, and that new entrants were able to join the market and compete effectively with existing market players without delay. Regarding conglomerate effects, the CTFTC concluded that the proposed joint venture would not affect potential competition in the relevant markets, as there were no foreseeable changes in the current regulatory systems, technologies and cross-industry business strategies.

30. Market trends indicated that businesses were in the early stages of developing their own mobile payment ecosystems. The majority of businesses were striving to attract more users and achieve sufficient scale for their platforms to generate network effects. The merging parties therefore had little incentive to engage in exclusive dealing or other forms of vertical foreclosure, or to refuse to supply services to trading partners. After evaluating both horizontal and non-horizontal competitive effects, the CTFTC concluded that it would not block this proposed joint venture, as it did not significantly restrict competition.

4.1.3. Creation of a joint venture for internet-only banking cleared unconditionally by the CTFTC

31. To accelerate digital transformation and promote financial inclusion, the FSC relaxed regulatory barriers for the establishment of internet-only banks in 2018. Since then, three online-only banks, established through joint ventures between financial institutions and non-financial enterprises, have been approved by the FSC. Given that these joint ventures were required to file merger notifications under the FTA, and to better understand online banking operations and the applicable regulatory frameworks, the CTFTC actively sought the views of the sector regulator regarding market openness, regulatory policies and the future development of digital-only banks during the merger review process.

32. While the CTFTC decided not to block the above merger, it gave special attention to the impact of the existing user bases and ecosystems controlled by the merging parties in the mobile payment market. The joint venture of LINE Bank serves as an example of the CTFTC's standpoint. Among the merging parties, LINE Financial Taiwan Limited is an affiliate of the LINE Group, which owns the most popular messaging app - LINE app in Chinese Taipei. The LINE app supports a well-developed ecosystem encompassing mobile

payment, online shopping and mobile marketing, which enables the LINE Group to collect large amounts of user data. In this regard, the CTFTC expressed concerns about how LINE Bank could connect its customers to the LINE app and its broader ecosystem.

33. The CTFTC's investigation found that the LINE Group might have certain competitive advantages in providing services tailored to the needs of LINE app users through its established ecosystem. For example, it could bundle Line Bank's services with other offerings in the LINE ecosystem under favorable terms and conditions. However, the evidence indicated that the LINE ecosystem faced intense competition in individual service markets, including mobile payments. In the mobile payment market, LINE Pay competed with several companies, including electronic payment institutions (e.g., JKoPay), mobile wallet service providers (e.g., Apple Pay), and other third-party payment processors. LINE app users had access to alternative services that could serve as substitutes for those offered within the LINE ecosystem.

34. As stated above, LINE Bank might be able to leverage customer data held by the LINE Group to identify customer needs and provide more customer-oriented services. However, other internet-only banks and traditional banks could also collect similar customer data from various sources. In addition to accessing data collected by affiliates within the same corporate groups, these banks could collaborate with data-related businesses such as messaging apps, social media platforms, search engines and e-commerce websites. The CTFTC concluded that the user data possessed by the LINE Group did not guarantee that LINE Bank would enjoy exclusive and insurmountable competitive advantages over its rivals.

4.2. Abuse of market power

35. In 2017, international mobile wallet service providers, including Apple Pay, Android Pay (later rebranded as Google Pay) and Samsung Pay, entered the market of Chinese Taipei and began competing with domestic mobile payment service providers. These international providers had significant presence in the smartphone market and operated their own mobile operating systems. Given their global market positions, the CTFTC launched respective probes into their business practices to determine whether any of them had misused their market positions in the mobile market to prevent domestic mobile payment service providers from competing on their merits.

36. Regarding Android Pay and Samsung Pay, the CTFTC found that the security elements embedded in Android and Samsung devices were generally accessible to other mobile payment service providers for contactless payment services. Google and Samsung did not require users of their mobile devices to use only Android Pay or Samsung Pay for in-app transactions, nor did they impose other exclusive restrictions. At the time, both companies were dedicated to expanding their user bases and building brand awareness. Neither company charged fees to their partner financial institutions, nor did they enter into exclusive dealing arrangements with them. The CTFTC therefore found no competition issues with Google and Samsung's business practices.

37. The CTFTC's investigation found that Apple did not allow third-party mobile payment platform operators to access the NFC functionality on iPhones. In doing so, these platform operators were unable to provide contactless payment services to iPhone users. To assess whether Apple's business practices constituted an abuse of dominance that could restrict or exclude competition in the mobile payment market, the CTFTC considered the following factors.

1. First, Apple's iPhone held the largest market share in the domestic smartphone market in 2018. However, Apple's 25% share was only marginally higher than the

respective shares of Samsung and ASUS. Under the FTA, Apple was not considered a monopolist or a dominant firm with sufficient market power to exclude competition in the relevant market.

2. Second, Apple Pay was built upon NFC contactless payment functionality on iPhones. However, there are at least four technologies underpinning mobile payments¹⁴, one of which is contactless payment via NFC. Other mobile payment service providers could choose alternative technologies, such as QR code payments or mobile online payments to provide payment services to iPhone users. NFC functionality was neither indispensable nor an essential input for the provision of mobile payment services.
 3. For example, QR code payments were widely accepted by merchants because they could be easily implemented in both brick-and-mortar stores and online. QR code payments offered additional advantages such as convenience, affordability and portability to merchants. From a consumer perspective, QR code payments did not require the use of any specific phone brand. They could also be linked to existing loyalty programs, allowing consumers to earn reward points at various retailers. At that time, in the mobile payment market, LINE Pay and JKoPay, both of which primarily adopted QR payment methods, were the two leading companies. This demonstrated that QR code payments could be economically and commercially viable.
 4. As noted above, NFC functionality was not an indispensable input for mobile payment services. Accordingly, the CTFTC concluded that Apple's refusal to provide NFC access on iPhones to its competitors did not constitute an illegal act that would diminish competition in the mobile payment market.
38. Market trends following the investigation show that QR code payments have become mainstream in the mobile payment market, as they involve lower installment costs and require fewer technical barriers. QR code payments are now widely used across various settings, including restaurants, food stalls, convenience stores, supermarkets and public services. QR code payments have come to dominate the mobile payment market. The 2023 Contactless Payment Trend Survey Report¹⁵, published by the financial data platform Money101, found that 75% of survey respondents used LINE Pay as their primary payment tool, while 20% used another QR code-based mobile payment service provider, JKoPay. Users of Apple Pay accounted for the third-largest group, with 16% of respondents. Around 13% of respondents used OPEN Wallet, with a similar percentage using Taiwan Pay and Easy Wallet, both of which, like OPEN Wallet, are based on QR code payment models.

¹⁴ Four key technologies underpin mobile payments: (1) mobile online payments - where consumers use mobile device to complete online transactions on websites or in-app stores; (2) Peer to Peer (P2P) - where users transfer funds to each other within the same payment platform via mobile devices; (3) contactless payments - where mobile devices equipped with NFC chips enable transactions at NFC readers in physical stores or on public transport; (4) QR code payments - where payments are processed by scanning a QR code using a mobile device and a payment terminal.

¹⁵ Liberty Times, *Post-pandemic consumer survey: 60.2% of respondents prefer electronic payments as the most common payment choice*, September 20, 2023, <https://ec.ltn.com.tw/article/breakingnews/4434513> (accessed April 9 2025).

5. Conclusion

39. Based on the CTFTC's observations of emerging trends in mobile payments in Chinese Taipei, there are no current signs indicating that consumers are 'locked into' any specific mobile payment service provider. Market entry opportunities remain open. At this stage, the CTFTC continues to monitor competition in the mobile payment market, including whether a merger or acquisition creates barriers to entry or impedes competition, and whether a dominant mobile payment service provider engages in anti-competitive practices to exclude competitors. Additionally, the traditional financial industry has placed greater emphasis on 'regulation' and 'supervision' than on fostering 'competition'. One of the CTFTC's long-term policy objectives is to encourage sector-specific regulators to implement rules that promote competition and enhance 'competition for the market'.