

Call for Information

Big tech and digital wallets

July 2024

We welcome your feedback to the questions and issues set out in this document, please send your submissions to us by **5pm on 13 September 2024**.

You can email your submissions to the PSR and FCA at:

FCA-PSR-digitalwallets@psr.org.uk

or write to us at:

Digital wallets CfI
Payment Systems Regulator
12 Endeavour Square
London E20 1JN

Please tell us if any part of your submission is confidential. We will not regard a standard confidentiality statement in an email message as a request for non-disclosure. If you want to claim commercial confidentiality over specific items in your response, you must identify those specific items which you claim to be commercially confidential. In addition, please let us know if you would be happy to be named as a respondent to this Call for Information.

We may nonetheless be required to disclose responses which include confidential information in order to meet our legal obligations, in particular if we are asked to disclose a confidential response under the Freedom of Information Act 2000. We will endeavour to consult you if we receive such a request. Any decision we make not to disclose a response can be reviewed by the Information Commissioner and the Information Rights Tribunal.

We take our data protection responsibilities seriously and we will process any personal data that you provide to us in accordance with the Data Protection Act 2018, the General Data Protection Regulation, the PSR Data Privacy Policy and FCA Data Privacy Policy. The PSR and FCA consider ourselves to be independent controllers of any personal data received, in line with our separate objectives. For more information on how and why we process your personal data, and your rights in respect of the personal data that you provide to us, please see our website privacy policies, available here: <https://www.psr.org.uk/privacy-notice> and <https://www.fca.org.uk/privacy>.

We intend to liaise with the CMA and may share information that we receive to the extent that appropriate information sharing gateways apply. If you have concerns with the PSR or FCA sharing relevant information with the CMA, please contact us to discuss this before you submit your response.

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1 Introduction

- 1.1** The use of digital wallets has grown rapidly. It is likely that more than half of UK adults now use one to some extent.¹ The share of retail payments that involve a digital wallet is also growing. An estimated 14% of point-of-sale terminal transactions and 38% of e-commerce transactions, by value, involved a digital wallet in 2023² – although some evidence is also consistent with a lower share of online spend.³
- 1.2** Drivers of these changes include smartphones and associated wearable devices such as smart-watches, which have become an integral part of modern life and how consumers use the internet.⁴ At the same time, big tech firms⁵ have expanded into the payments space. The widespread and increasing use of their digital wallets represents one of the most significant ways that they are impacting consumers and businesses that use payments.
- 1.3** Experiences overseas provide an indication of the opportunities that digital wallets represent for the UK. Consumers in other countries can, for example, make in-store retail transactions using digital wallets that are integrated with account-to-account payment systems. At the same time, digital wallets have attracted the attention of various regulators, with both the European Commission and US Department of Justice taking action against Apple with regard to alleged business practices relating to its digital wallet, Apple Pay.
- 1.4** The Payment Systems Regulator (PSR) and Financial Conduct Authority (FCA) are collaborating in publishing this Call for Information, so that we can understand the opportunities and risks that this technology's increasing popularity creates. Many issues are likely to be of interest to both organisations, including those relating to consumer protection. Nevertheless, we operate under distinct regulatory remits and therefore have interests in specific areas.
- The PSR aims to ensure that the UK's payment systems work well for everyone who uses them.⁶ It has previously examined [contactless mobile payments](#) (2018) and is particularly interested in understanding how digital wallets impact consumers' choice of payment options at checkout. It hopes to examine the implications of digital wallets' growing role in the payments value chain, and the implications for competition between payment systems and the PSR's strategic objective of unlocking the potential of

1 14% of UK adults stated that they had used a digital wallet in the previous 12 months in 2017, 28% in 2020 and 47% in 2022. Source: [Financial lives survey](#) (2022), slide 30.

2 Source: Worldpay from FIS®, [The global payments report 2024](#). FIS Global also estimated that digital wallets were used in around 10% of UK transactions (by value) at point-of-sale terminals in 2022 and 35% of UK e-commerce transactions (by value) in 2022. Source: Worldpay from FIS®, [The global payments report 2023](#).

3 The FCA found that, in 2022, 7% of UK adults reported using a digital wallet the last time they bought an everyday item online. Source: [Financial lives survey](#) (2022), slide 32. 3% of adults reported using a digital wallet the last time they bought a high-value item online. Source: FCA analysis of [Financial lives survey](#) (2022).

4 Three-quarters of the time spent online per day in May 2023 by adults was on smartphones. Source: Ofcom, [Online nation 2023 report](#).

5 The Financial Stability Board (FSB) defines big tech as large digital companies with established technology platforms and extensive established customer networks. In this Call for Information, we consider issues relating to digital wallets in general, but focus on those operated by big tech firms including Apple, Google (Alphabet), PayPal and Amazon.

6 The PSR has statutory objectives to promote the interests of service users, and to promote effective competition and innovation in payment systems. See <https://www.psr.org.uk/about-us/the-psr-purpose/> for more details.

account-to-account payments. It considers that digital wallets could in principle be characterised as ‘participants’ in a payment system designated to its regulation.⁷

- The FCA aims to ensure financial markets work well for individuals, for businesses, and for the medium-to-long-term growth and competitiveness of the UK economy. It examined digital wallets as part of its discussion paper and feedback statement on [big tech entry and expansion in retail financial services](#) (2023) and Call for Input on [data asymmetry between big tech and firms in financial services](#) (2024). Its regulatory remit gives it a particular interest in issues such as how digital wallets may impact competition in the supply of financial services and the operational resilience and systemic safety of the UK financial services sector. The FCA assesses that some digital-wallet-related services and activities fall within its regulatory perimeter – for instance, e-money issuance by a staged wallet in exchange for customer funds. Other aspects of digital wallets, such as card tokenisation, fall outside it.⁸

1.5 This Call for Information focuses on a range of issues, including the following:

- **Are digital wallets working well for consumers, businesses and other users of payments?** We want to understand the range of benefits that digital wallets bring for service users.⁹ At the same time, are there any features in the supply of digital wallets that mean that payments don’t work as well as they could? For instance, Apple and Google operate the main mobile ecosystems and may be able to determine how rival digital wallets operate with mobile devices. Do practices such as limiting access to mobile device functionality raise barriers to entry – risking higher fees, worse services and less innovation? If so, are they justified by benefits for security and convenience for service users?
- **Are there any disincentives or other barriers to digital wallets integrating account-to-account payments?** Digital wallets could become an important part of a model where account-to-account payments are an effective alternative to card payments. The way that digital wallets provide access to payment systems could determine how they compete. For example, what fees will be involved and how will the payment system used to complete a transaction be chosen? We are interested in stakeholder views on how digital wallets should best develop to encourage effective competition that benefits service users.
- **Do stakeholders consider that digital wallets raise any significant consumer protection or market integrity issues?** Digital wallets may affect financial resilience and systemic risk within the financial system – for instance, if they were to suffer an operational failure or outage. We would like to understand both the potential benefits and the risks arising either now or in the future.

7 See Chapter 7 for more details of the PSR’s view on the relevance of digital wallets to the exercise of its functions.

8 See Chapter 7 for more details of the FCA’s view on its regulatory perimeter.

9 That is, those who use, or are likely to use, services provided by regulated payment systems.

- 1.6** The issues we examine in this Call for Information may also be relevant to the work of the Competition and Markets Authority (CMA), both under its current powers and those under the new digital markets competition regime created by the Digital Markets, Competition and Consumer (DMCC) Act 2024, when the latter enters into force. We are already engaging with the CMA as it takes on these new powers, and intend to continue to liaise closely. We may therefore share relevant information with the CMA in line with the appropriate gateways.¹⁰
- 1.7** We want to engage effectively with stakeholders across the payments and financial systems landscape, including digital wallet and technology providers. We are open to and interested in receiving your views on the issues raised in this Call for Information and very much welcome your engagement. In addition to responding to this Call for Information, we are open to discussions with parties with an interest in this issue, including those who would like to provide views using the email address below. We look forward to working with all parties on this issue.
- 1.8** Stakeholders are invited to respond to the questions that are included throughout this document and collated in Chapter 8. Please email your submissions to the PSR and FCA at FCA-PSR-digitalwallets@psr.org.uk no later than 5pm on 13 September 2024. Your input will help to inform and build upon our work, and we will publish an update by Q1 2025 once we have considered all the information that we receive. We expect that this work will inform our continued engagement with the CMA on digital market issues.
- 1.9** As part of this process, a sample of firms will shortly be contacted and asked to provide more detailed data on specific topics, such as usage of digital wallets and fees, which will help to inform the analysis of the issues covered in this document.
- 1.10** While this Call for Information focuses on digital wallets, we are aware of other areas of big tech activity in payments and financial services that impact payments. Indeed, during the extensive engagement we undertake as part of our horizon-scanning processes, stakeholders frequently raise the issue of big tech potentially driving significant changes in payments in the future. We are always open to stakeholders providing us with views on issues they consider to be relevant to our respective horizon-scanning processes, including in relation to the costs, benefits and impact of big tech.

¹⁰ See page 2 for details of our approach to stakeholder submissions.

2 Background

Features and functionality

2.1 Digital wallets can be defined as apps, software or online services that allow consumers to make payments, quickly and conveniently, using mobile phones or other electronic devices. They can be linked to payment instruments such as credit cards, debit cards, or to bank accounts. They securely store and send payment information using methods such as 'tokenisation'¹¹, and can utilise device features such as biometric authentication to verify a consumer's identity. This allows users to make payments without needing a physical payment card.

2.2 Digital wallets can differ in various ways, as outlined below.

- **The types of payments that they enable:** Some digital wallets facilitate retail transactions, others allow peer-to-peer payments, and others do both. Retail payments can include:
 - in-store contactless mobile payments
 - online mobile payments, using a mobile web browser or mobile app¹²
 - online payments using desktop/laptop devices
- **The technology that they use:** Some digital wallets that facilitate in-store payments make use of the mobile device's near-field communication (NFC) chip to communicate with point-of-sale (POS) terminals in the same way as contactless cards. Other wallets may use QR code or barcode technology.
- **The payment instruments that they work with:** Some digital wallets link to a user's debit or credit cards whereas others may connect directly to a bank account and facilitate account-to-account transfers using regulated open banking payment methods. Some may work with a wide range of card issuers and networks while others may only link to specific ones.
- **The retailers that accept them:** Levels of acceptance vary across digital wallets. Some are retailer specific (for example, Tesco Payment Wallet) while others are accepted across a wide range of retailers. The digital wallets that specific retailers accept can vary for in-store and online purchases.
- **Whether they hold funds:** Digital wallets can be either 'staged' or 'pass-through'.
 - **Pass-through digital wallets:** Digital wallets such as Apple Pay and Google Pay allow users to make payments from a payment card, but do not hold funds themselves. They rely on converting payment card details into a 'token' that

11 Tokenisation replaces a card's primary account number (PAN) with a device primary account number (DPAN) or 'token'. This is intended to reduce the risk of the consumer's payment details being stolen electronically. See [Contactless mobile payments](#) (2018), paragraphs 3.56 to 3.65, for further explanation.

12 These can include remote purchases made online as well as face-to-face transactions that result in an online payment (for example, in some hospitality settings).

securely links the card's primary account number (PAN) to a virtual card on a consumer's device.¹³

- **Staged digital wallets:** Other types of digital wallet, such as PayPal, offer a way to pay that follows a two-stage process, where funds are first added to the digital wallet as e-money and later, at the point of purchase, transferred from the payee's digital wallet account to the recipient's digital wallet account.¹⁴ These are sometimes referred to as e-wallets.¹⁵

2.3 While the features and functionality of digital wallets vary, in general terms, they offer consumers a quick and convenient way to make payments. For instance:

- In a store, a consumer can touch a mobile phone to the POS card terminal to initiate payment quickly. This reduces the need to carry cash or cards. If the consumer authorises payment using their fingerprint or face, this can eliminate the need to remember pin codes. Contactless payments using digital wallets may have higher transaction limits compared to contactless card transactions. There may also be some security advantages – for example, if a consumer loses their phone and it is locked, a person finding it should not be able to make fraudulent purchases. We discuss issues relating to security and invite stakeholder views in Chapter 6.
- When shopping online¹⁶, paying with a digital wallet can eliminate the need to enter payment information manually¹⁷ or complete additional security steps, such as confirming a security code received by text message or by logging into a banking app.

2.4 There may be additional advantages for consumers – for example, digital wallets may allow a new payment card to be added and used before the physical card is received. We are also interested in understanding the benefits that digital wallets have for other parties. Card schemes and issuers may have benefited because payments initiated by digital wallets are often underpinned by a card transaction. Retailers may offer digital wallets as an option at checkout in response to consumer demand, but are there other advantages for them, such as shorter checkout times and reduced transaction abandonment¹⁸ and fewer transaction failures?¹⁹

13 As discussed further in Chapter 7, they do not currently fall within the FCA's regulatory perimeter and have not been designated as a regulated payment system under section 43 of the Financial Services (Banking Reform) Act 2013 (FSBRA).

14 PayPal allows its customers to make payments in this way using their existing PayPal balance. It also allows them to use other methods such as debit and credit cards or bank transfers.

15 Staged digital wallets may be regulated as e-money accounts, and be provided by e-money, payment or credit institutions, unless they fall within an exclusion to regulation 3 of the Electronic Money Regulations 2011. See: <https://www.legislation.gov.uk/uksi/2011/99/regulation/3>

16 Or if prompted to make an online payment in a real-world setting, such as certain restaurants.

17 Although this may not be necessary if the consumer has previously saved their card details with the retailer or if the consumer's mobile device autofills some or all of the card details.

18 For example, Finextra indicates that digital wallet options may optimise the online checkout process for customers who are put off by the process of manually entering their card information. Source: Finextra, [Can data-driven payments reduce cart abandonment rates for ecommerce](#) (2021). Shopify reports the results of a survey of US adults in which 11% of respondents who had abandoned an online purchase in the previous three months did so because the retailer didn't offer enough payment methods. Shopify lists shopping apps, digital wallets and buy-now-pay-later (BNPL) options as popular payment methods that retailers may offer to consumers. Source: Shopify, [How to reduce cart abandonment and close sales](#) (2024).

19 Stripe reports that Apple Pay and Google Pay lead to higher authorisation rates due to two-factor authentication. Source: Stripe, [Optimizing authorization rates](#) (2024).

2.5 Digital wallets can incorporate other functions besides payments. For example, they can provide access to loyalty cards and store tickets for events or travel. They may also use open banking capabilities to allow users to access other banking services, such as checking account balances. Digital wallets could potentially offer even more services in future – for instance, they could become an interface through which consumers access financial or potentially even government services (for example, by acting as a form of digital identification).

Trends in the use of digital wallets

2.6 We have reviewed a range of published evidence on the use of digital wallets, in terms of both the number of people registered to use them and their usage in specific transaction settings. This evidence is set out in the Annex. Estimates often vary by metric and methodology.²⁰ However, some key points are outlined below.

- **Overall registered users:** The proportion of UK adults who have a digital wallet has grown rapidly. In 2022, 47% of UK adults had used one in the previous 12 months, compared to 14% in 2017 (see Figure 1).²¹ It appears likely that more than half of UK adults now use digital wallets, at least to some extent.
- **In-store retail payments:** In May 2022, 35% of UK adults reported making a contactless payment with a digital wallet in the past 12 months.²² An estimated 14% of UK transactions (by value) at POS terminals in 2023 took place using digital wallets. The value of such transactions is predicted to grow to 29% in 2027.²³ Evidence suggests that people tend to use digital wallets more for everyday spending than for high-value items, so digital wallets are likely to account for a higher proportion of transactions by volume.²⁴
- **Online retail spending:** The Office for National Statistics (ONS) estimates that internet sales accounted for 26% of all retail sales in May 2024²⁵, but evidence on digital wallets' share of online transactions is mixed. For instance, in 2022, an FCA survey found that just 7% and 3% of adults reported using a digital wallet the last time they bought an everyday and high-value item online, respectively.²⁶ However, FIS Global estimates that digital wallets were used in 38% of all e-commerce transactions by value in 2023. The value of such transactions is predicted to grow to 50% in 2027.²⁷ These statistics are not specific to online spending through mobile devices, which are estimated to account for 40% of all e-commerce.²⁸ It seems reasonable to

20 We have not assessed the relative robustness of underlying methodologies.

21 [Financial lives survey](#) (2022), slide 30.

22 FCA analysis of [Financial lives survey](#) (2022), slide 29.

23 Worldpay from FIS®, [The global payments report 2024](#), page 113.

24 11% of UK adult survey respondents said that a digital wallet was the main payment method used the last time they bought an everyday item from a local shop. For those who had bought a high-value item from a local shop, only 4% said that they last used a digital wallet. Source: [Financial lives survey](#) (2022), slide 32.

25 ONS, [Internet sales as a percentage of total retail sales \(ratio\) \(%\)](#) (2024).

26 The FCA found that, in 2022, 7% of UK adults reported using a digital wallet the last time they bought an everyday item online. Source: [Financial lives survey](#) (2022), slide 32. 3% of adults reported using a digital wallet the last time they bought a high-value item online. Source: FCA analysis of [Financial lives survey](#) (2022).

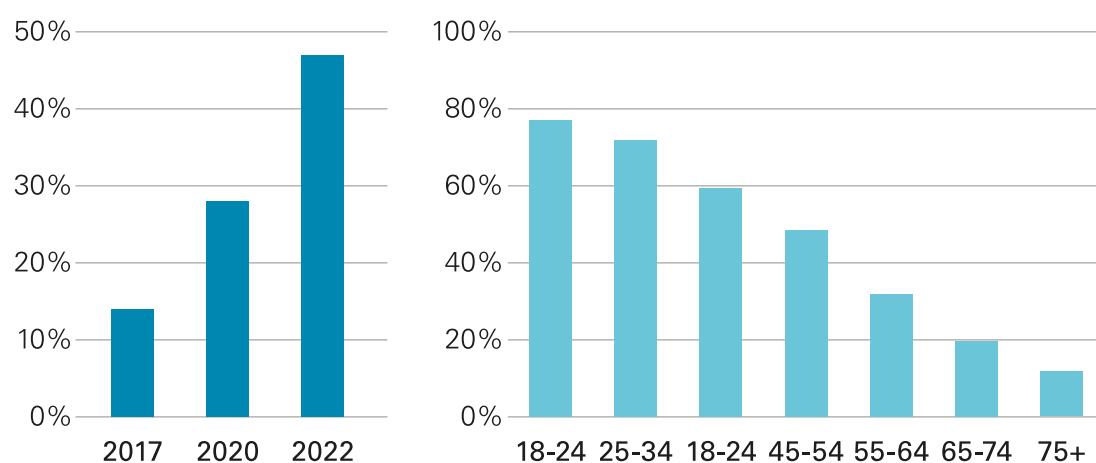
27 Worldpay from FIS®, [The global payments report 2024](#), page 113.

28 Worldpay from FIS®, [The global payments report 2023](#), page 115.

assume that digital wallets may be used in a higher proportion of transactions made online using mobile devices than for e-commerce overall.

- Customer groups:** Overall statistics disguise variations in usage across specific groups of consumers. The FCA has found that younger demographics are significantly more likely to report using a digital wallet than UK adults overall. In 2022, an FCA survey found that 26% of respondents aged between 18 and 24 reported using a digital wallet the last time they went to a local shop to buy an everyday item, while 17% used a digital wallet to buy an everyday item online. The comparable figures across all adults were just 11% and 7%, respectively.²⁹ Higher levels of use by younger demographics may indicate that usage across all UK adults will continue to increase over time.

Figure 1: People who used a digital wallet in the past 12 months, over time and by age bracket³⁰



'In the last 12 months, have you used a mobile or digital wallet to pay for goods or services?' Excludes 'don't know' responses.

'In the last 12 months [to May 2022], have you used a mobile or digital wallet to pay for goods or services?' Excludes 'don't know' responses.

2.7 How do UK consumers compare to the rest of the world? FIS Global estimates that consumers in the Asia-Pacific, particularly China, use digital wallets to a greater extent.³¹ It attributes this to various factors, including the integration of digital wallets into several e-commerce marketplaces, the popularity of 'super apps'³² and widespread adoption of QR codes at POS terminals. A survey commissioned by EVO Payments suggests that digital wallets are slightly more popular among UK consumers for in-store purchases compared to the average across a sample consisting mainly of European countries.³³

29 [Financial lives survey](#) (2022), slide 32. The figures for respondents aged between 18 and 24 reflects additional unpublished analysis by the PSR.

30 [Financial lives survey](#) (2022), slide 30. The breakdown by age reflects additional unpublished analysis by the PSR.

31 Worldpay from FIS®, [The global payments report 2023](#), page 16.

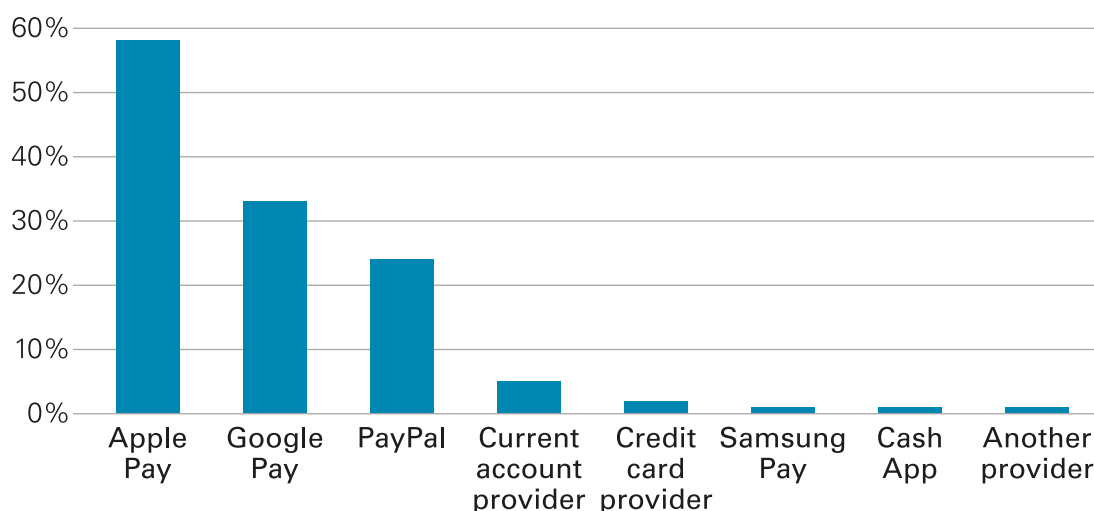
32 These can be defined as mobile apps that integrate multiple diverse services, such as messaging, payments and shopping, into one platform.

33 For example, 23% of UK survey respondents made a contactless payment using a phone/smartwatch or other device for their last offline payment. This compared to 9% for survey respondents from the other countries in the sample. All but one of the 14 countries included in the study were European. Source: EVO Payments, [Attitudes toward payment methods](#) slides 3 and 23.

Providers of digital wallets

2.8 Apple Pay, Google Pay and PayPal are three of the most widely used digital wallets in the UK today.³⁴

Figure 2: Digital wallets used in the past 12 months, 2022³⁵



Note: Respondents who had used a digital wallet in the past 12 months were asked which digital wallets they had used. The Google Pay figure includes those who said they had used either Google Pay or Android Pay – its previous name.

2.9 Apple Pay is a pass-through wallet that was launched in 2015. It can be used with Apple devices (iPhone, iPad, Apple Watch, Mac) and can enable card payments in various retail settings, including in-store and via web browsers and mobile apps. It is the only payment app that can make NFC contactless payments in-store using an iPhone.³⁶

2.10 Google Pay was initially launched as Android Pay in 2016. It is a pass-through wallet that can be used with a wide variety of Android-compatible devices and desktop/laptop computers³⁷ to enable card payments in retail settings such as in-store and via web browsers and mobile apps.³⁸

2.11 PayPal was first available to UK consumers in 2004. It is a staged wallet that can be used to make online retail purchases through web browsers and mobile apps³⁹, and to pay in-store using the PayPal app and QR codes at participating retailers. PayPal provides wallets that are regulated e-money accounts. Users can upload funds to their PayPal wallet using card and account-to-account payments. They can make purchases at participating retailers by using their PayPal balance or other options, including card payments.

34 Credit or debit cards stored in a consumer's Apple Wallet can be used with Apple Pay. In this Call for Information, for convenience, we refer only to Apple Pay. We take the same approach with regard to Google Pay and Google Wallet.

35 [Financial lives survey](#) (2022), page 217.

36 It uses the Apple device's secure element (SE) chip for the tokenisation process.

37 It is possible to use Google Pay on Apple devices if the merchant shows Google Pay as an option to initiate payment.

38 Google Pay uses Host Card Emulation (HCE) to store tokenised card details remotely on secure servers in 'cloud' databases. Android devices can, however, also support a SE approach.

39 It can be used with both iOS and Android devices and desktop/laptop computers.

- 2.12** There are a number of other digital wallets (or other ways to initiate payment), including Amazon Pay, which was introduced to the UK in 2017. Amazon customers can use their account credentials to make purchases across participating online retailers.⁴⁰ Other examples include: Samsung Pay, Amex Pay, Garmin Pay, Cash App, Pay By Bank and Click to Pay. Starbucks and Tesco also operate wallets that use QR code or barcode technology. It is not always clear how widely used these other options are, either in terms of the number of retailers and consumers who are registered to use them, or in terms of the volume and value of transactions in which they are used.

Questions

Question 1: What are the benefits of digital wallets for consumers, businesses and other parties in the payments value chain? Your answer might include comparison to alternative ways of initiating payments and consideration of the impact of digital wallets on UK payment trends and metrics, such as:

- the impact on consumer and business experience of payments
- the speed and convenience of checkout processes
- the rate of fraudulent transactions
- the cost of making or receiving retail payments for different types of party

Question 2: Please provide information on the use of digital wallets in the UK. We welcome information on the current situation as well as trends over time. We are interested in the percentage of retail transactions overall (by value and volume) that involve digital wallets, as well as more detailed information on usage – for example, by digital wallet provider, customer type and/or for different transaction types, such as:

- in-store/face-to-face retail payments
- retail payments using mobile web browsers, including on tablets
- retail payments using mobile apps, including on tablets
- retail payments using desktops/laptops
- other

Question 3: Are there likely to be any significant developments in the UK over the next five years regarding digital wallets – for instance, in terms of their usage, functionality or features? This could include the launch of entirely new functionalities/services or ones that are already available in other countries. As far as possible, please explain the likelihood of these developments, their expected magnitude and their implications for competition, innovation and service users.

40 A total of 9,377 UK websites were reported to use Amazon Pay in February 2024. Source: Statista, [Number and share of merchants who use Amazon Payments as a payment solution on their website across various countries and territories in the world as of February 28, 2024](#). In the UK, Amazon also operates Amazon Fresh retail stores, where consumers can choose to pay using their Amazon account.

3 Digital wallets and how payments are initiated

3.1 In this chapter, we consider features related to the supply of digital wallets that may influence how consumers make retail payments – and the potential impact of these features on competition, innovation and service users. We focus on retail payments using mobile devices⁴¹, because some of the features we subsequently discuss appear more relevant to payments made this way than to those made using a laptop or desktop computer. However, we do not exclude the possibility that these issues may also apply to purchases made on laptops and desktops.

Options for initiating payments

3.2 Across different retail settings, consumers typically have multiple ways of making or initiating a payment. The options available for each transaction will vary, but could include cash, debit or credit card, digital wallet, gift vouchers, pre-paid cards or buy-now-pay-later (BNPL) facilities.

3.3 If consumers specifically want to pay with a digital wallet, their choice can be relatively limited. For instance, in face-to-face retail settings, iPhone users may be limited to Apple Pay, while Android users have Google Pay (also Samsung Pay if using a Samsung phone). If purchasing online with a mobile phone, as Figure 3 illustrates, an iPhone user may be limited to PayPal or potentially Apple Pay. Other digital wallets may be offered much less frequently.

Figure 3: Checkout options available at selected large UK retailers for an online purchase using an iPhone

	PayPal	Apple Pay	Google Pay	WeChat	Alipay	Debit or credit card	Gift card or voucher	BNPL / credit options	Other pre-paid card
JD Sports	■	■				■	■	■	
eBay	■	■				■	■	■	
Deliveroo	■	■		■	■	■	■	■	
Next	■	■	■			■	■	■	
ASOS	■	■				■	■	■	
Uber	■	■				■	■		
John Lewis	■	■				■	■		■
Ikea	■					■	■	■	
Sainsburys						■	■		
Currys	■					■	■		
Screwfix	■					■			
Amazon						■	■		

Source: PSR analysis

⁴¹ Where relevant, in this chapter, we focus on choice of front-end options opposed to the underlying payment system (for instance, using either a contactless card or a digital wallet may result in a card payment).

- 3.4** Figure 3 shows the options we were offered when purchasing a randomly selected item costing between £15 and £25 using an iPhone and via a mobile web browser or mobile app. These options could potentially change depending on the price of the item being purchased. Other variables might include whether the consumer checks out as a guest or a member, via the mobile app or mobile browser, and so on. We also note that BNPL and other options might have been available if, for instance, they could have been used in conjunction with a digital wallet. The options shown in Figure 3 may not reflect those typically offered by smaller UK retailers.
- 3.5** For a consumer to have the choice of initiating a payment using a digital wallet, they need to have a payment card or bank account that can work with the digital wallet. In this regard, [Apple Pay](#), [Google Pay](#) and [PayPal](#) appear to support a very wide range of debit and credit cards in the UK.⁴²

Features that could impact competition, innovation and service users

- 3.6** As discussed in Chapter 2, we are interested in understanding the range of benefits that digital wallets have. At the same time, we would like to know whether there are any features of their supply that could cause harm to (or otherwise mean that payments could work better for) consumers, businesses or other users.
- 3.7** One feature of Apple Pay and Google Pay is that they are respectively part of the Apple and Google mobile ecosystems.⁴³ Apple is also the exclusive manufacturer of iPhone devices. These two mobile ecosystems are each characterised by large installed bases, strong brand attachment and network effects.
- 3.8** As a result, Apple and Google may be able to influence how digital wallets (or other ways of initiating payments) work on mobile devices or are accessed by consumers. For instance, they could:
- determine to what extent digital wallet providers are able to utilise the features and functionality of mobile devices, web browsers, mobile operating systems or operating system application programming interfaces (APIs)⁴⁴
 - steer payments to be made in a certain way – for example, through rules or defaults⁴⁵

42 The PayPal app additionally lists 15 ‘popular banks’ from which a user can link a bank account to their wallet.

43 The CMA stated that these can broadly be characterised as the following core set of products: mobile devices, mobile operating systems and apps. Mobile app stores and mobile browsers are described as the most important of the apps that can come pre-installed. See CMA [Mobile ecosystems market study final report](#), paragraphs 2.5 to 2.8.

44 For example, with regard to:

- the mobile device’s NFC chip, which can be used to make contactless payments at POS card terminals
- features such as ‘double click to pay’ and the ability to pay on public transport without unlocking the device
- support for web-based apps

45 For example:

- digital wallets can be pre-installed on mobile devices, or consumers can be prompted to set up a specific one
- we would be interested to understand whether there are web browser rules or defaults that influence or specify which options are offered at online checkout, or how they are shown or ranked

- 3.9** In principle, these could determine the extent to which rivals are able to access and integrate their payment options to offer a frictionless checkout experience.
- 3.10** The relative importance of specific issues could vary according to transaction type. For instance:
- For in-person payments, Apple’s restrictions on third-party access to the iPhone’s NFC chip mean that rival digital wallet providers may need to use alternative technologies to allow iPhone users to make face-to-face payments using their products. Alternatives such as QR code, barcode technology, or prompts to pay using an online web browser may provide a less seamless checkout experience.
 - For online mobile payments, options that authenticate transactions via text message or banking apps may be less convenient than those utilising the mobile device’s biometric authentication functionality. Mobile web browser rules may also be important. For example, we would be interested to understand what factors determine how options are presented at online checkouts.
- 3.11** Some issues may be relevant to multiple transaction types. For example, digital wallets can come pre-installed on mobile devices. Issues that influence how payments are made in one transaction setting may also have wider impacts – for example, if consumers find it more convenient to set up and use only one digital wallet rather than several.
- 3.12** Features that influence how consumers make payments could have both benefits and risks for competition, innovation and service users. For example, if third-party access to mobile device functionality raises barriers to alternative digital wallets, or otherwise restricts competition between different payment methods, this could limit the competitive constraints on the pre-installed or default digital wallet provider. On the other hand, there may be justified business rationales for restrictions in terms of the security and convenience benefits for service users that outweigh other considerations. An assessment of features therefore needs to consider the evidence on their effects in the round.
- 3.13** Given that there are typically multiple ways of making or initiating payments, it should also consider any constraints that alternative payment options exert on digital wallet providers. For example, consumers’ main reasons for using digital wallets are their speed and convenience.⁴⁶ If their quality declined and no longer met these needs, material numbers of consumers could, in principle, switch back to using alternative payment options, such as contactless cards. In addition, could new payment options emerge to rival the convenience of digital wallets?
- 3.14** Although we are interested in understanding whether any issues related to the Apple and/or Google mobile ecosystems adversely impact service users, we are also open to stakeholder views on other features, including those that limit the potential of the most widely used digital wallets.

⁴⁶ 83% of respondents reported that convenience/speed was the main reason for choosing to use a digital wallet. Source: [Financial lives survey](#) (2022), slide 33.

Evidence of features and outcomes

- 3.15** Some evidence suggests the presence of barriers to entry and expansion for third-party digital wallets.⁴⁷ As noted above, a consumer's choice of digital wallet may be limited in certain retail settings. There have also been instances of digital wallets being discontinued, such as Vodafone Pay closing in 2018 and the Barclays Contactless Mobile App closing in 2023. Similarly, Fitbit Pay will be unavailable from July 2024, although Google Wallet is available for Fitbit devices that support contactless payments.⁴⁸
- 3.16** We note that the European Commission has recently accepted commitments by Apple to allow third parties to access the iPhone's NFC functionality. In principle, Apple's commitments could lower barriers to third-party digital wallets in the European Economic Area (EEA).
- 3.17** We are interested in understanding the impact on UK service users of any barriers to third-party digital wallets, or other restrictions on competition. We want to look at the evidence on whether digital wallets are working well in terms of outcomes and to consider the potential impacts of more choice or competition.

Services and innovation

- 3.18** PayPal was launched in the UK in 2003 as a convenient and safe way to pay and get paid online. The main pass-through digital wallets launched in 2015/16 and added intuitive user interfaces, quick authentication and effective security to existing payment infrastructure. Over time, they have acquired additional functionalities. For example, since launching in the UK in 2015/16, the main pass-through wallets have added:
- more streamlined processes allowing users to make payments without unlocking the mobile device on some public transport schemes
 - the capacity to make payments on web browsers
 - the ability to integrate retailer loyalty cards and tickets for events or travel
 - the ability for users to view their bank balance
- 3.19** The increasing popularity of digital wallets appears consistent with consumers valuing these services.
- 3.20** It is unclear to what extent potential barriers may have inhibited the introduction of further services. For instance, the PSR's [Contactless mobile payments report](#) (2018) found no evidence that significant innovation was being held back by Apple's restrictions on access to the iPhone's NFC chip.⁴⁹ More recently, however, the CMA [Mobile ecosystem market study](#) (2021) concluded that these restrictions give Apple Pay a decisive advantage over competing digital wallets. Based on the evidence gathered, it contended that Apple had overstated the security risks of opening up NFC access. Furthermore, it argued that a

47 On the other hand, the increase in BNPL options in recent years suggests that there have been some opportunities for growth. In the UK, 17 million shoppers have reportedly used BNPL (source: <https://www.bbc.co.uk/news/business-59433904>), albeit these are credit facilities that may cater to a distinct customer need.

48 <https://www.fitbit.com/global/uk/technology/fitbit-pay>.

49 [Contactless mobile payments](#) (July 2018), paragraph 5.7.

'healthy ecosystem' of competing wallets on iOS devices could lead to innovations in the in-store payment experience and other benefits for users.

3.21 There could now be greater scope for competition between digital wallets to drive better outcomes, given the possibilities offered by open banking and new ways of paying, such as account-to-account payments.

Fees

3.22 Apple charges fees to issuers⁵⁰ and we would like to understand the impact of these for service users.

- Do they reflect the value of the digital wallet services that Apple provides, such as security and authentication?
- Have they prompted competitive responses that benefit service users, such as issuers promoting contactless cards or improving their mobile banking apps?
- Could they result in adverse effects for service users, such as fees being passed on to cardholders via higher costs or lower benefits, or by distorting issuers' incentives to invest in their own security measures?

3.23 The big tech firms' expansion into payments has also brought them into contact with the established card schemes. In its [Market review of card scheme and processing fees](#), the PSR reported that providers of staged digital wallets pay, through their acquirers, scheme and processing fees on the card transactions their customers make to fund their wallets.⁵¹ It also stated that digital wallets have taken a 'card friendly' approach, but reported that there is evidence that Mastercard and Visa take the competitive threat from digital wallets seriously, particularly the risk of commoditisation.⁵²

3.24 It is unclear how such interactions have impacted service users. Have card scheme initiatives such as Click to Pay and Mastercard's Pay by Bank been responses to the growing popularity of digital wallets? We note that Pay by Bank lists only eight participating retailers and two issuers in the UK⁵³, although Click to Pay reportedly has 'tens of thousands of merchants' globally.⁵⁴ We would also like to understand whether digital wallets could incentivise the card schemes (and others) to introduce further new services. For example, Mastercard and Visa (as well as Amazon) have developed biometric payment technology that may allow UK consumers to initiate payments with their palm (or face) without the need for a payment card or mobile device.⁵⁵

50 For instance, as stated in CMA, [Mobile ecosystems](#) (2021), paragraph 6.29, and discussed in relation to US transactions (source: Payments Dive, [DOJ calls Apple card fees 'significant expense' for banks](#)).

51 MR22/1.9, [Market review of card scheme and processing fees](#), paragraph 4.117.

52 MR22/1.9 Annex 1, [Market review of card scheme and processing fees Annex 1](#), paragraph 1.170.

53 <https://www.mastercard.co.uk/en-gb/personal/ways-to-pay/pay-by-bank-app.html>

54 <https://www.pymnts.com/connectedeconomy/2024/mastercard-says-click-to-pay-is-primed-for-growth-as-merchants-focus-on-conversion/>

55 For example:

www.mastercard.com/news/europe/en/newsroom/press-releases/en/2024/pay-with-your-glance/
www.biometricupdate.com/202402/visa-says-palm-biometric-payments-have-promising-future
www.aboutamazon.com/news/retail/amazon-one-app

3.25 The main digital wallets do not typically charge fees directly to consumers for initiating retail payments.⁵⁶ This does not preclude the possibility that they may be able to charge consumers, or earn revenues from them in other ways, in the future. For instance, digital wallets could become an even more significant interface through which consumers receive financial services. Data collected from consumers through their use of digital wallets could potentially be combined with other insights big tech firms may have on users, such as their internet search histories or open banking data. They could use this to send targeted advertisements and product offers. Would this represent a benefit or a harm to consumers? The FCA recently published a [call for input](#) and a [feedback statement](#) in relation to big tech data issues, and it is currently working to identify 'use cases' to test the value of such data in financial services.

Questions

Question 4: Are there any features related to the supply of digital wallets that cause harm to (or mean that payments could otherwise work better for) service users? We are particularly interested to hear about any features that may limit competition in payments or otherwise adversely impact service levels, degree of innovation or fees. Where available, please provide supporting evidence.

Question 5: Please explain whether any harms identified in your response to Question 4 could be outweighed by benefits associated with those same features – for instance, in terms of greater convenience or security. Where available, please provide supporting evidence.

Question 6: If you think that there are features that result in harm, what measures would be effective and proportionate to improve outcomes? Please explain:

- any technical standards that would need to be specified – for instance, through regulation
- whether the measure would be effective in isolation or other steps would also be required (if the latter, please specify what these might be)

Question 7: If not covered in your other responses, please explain what fees (if any) digital wallets charge and how these have changed over time. What impact do these fees have on UK service users? Please provide any evidence available to support your answer.

Question 8: Aside from fees charged to issuers, are there any other sources of potential revenue available to pass-through digital wallet providers? If so, what are their impacts on service users?

56 PayPal is free to make a retail transaction unless it involves a currency conversion.

4 Digital wallets and competition between payment systems

4.1 In this chapter, we consider how digital wallets could impact competition between payment systems themselves (including competition between payment systems for integration with digital wallets). We focus on factors that may impact whether digital wallets integrate account-to-account payments, how those payment systems may compete and the extent to which such competition will benefit service users.

Unlocking account-to-account payments

4.2 While consumers now have more choice in how they initiate retail payments, many options, including digital wallets, are often underpinned by a card transaction. Currently, few retail transactions in the UK are made using alternative payment methods, such as account-to-account. Retailers therefore often have limited choice of payment systems and the prices they pay. These costs are ultimately passed on to consumers.

4.3 One of the PSR's strategic priorities is to promote greater competition in and between payment systems, including by unlocking the potential of account-to-account payments. It wants these to provide an effective alternative to card payments. Greater competition has the potential to drive improvements for consumers through increased innovation, lower prices and higher service quality.

4.4 The PSR has recognised that several issues need to be addressed for account-to-account payments to gain more widespread use in the retail sector.⁵⁷ Such payments need to be quick and convenient, with effective dispute processes in place, underpinned by high operational and technical standards. The PSR has explained that there also needs to be a commercial and regulatory model that allows account-to-account payments to compete with other forms of retail payment, and provides commercial opportunities for providers of payment services to innovate, compete and invest.⁵⁸

4.5 In addition, the FCA has an operational objective to secure an appropriate degree of protection for consumers, including where they use regulated account-to-account payment services. Its Consumer Duty requires regulated firms to act to deliver good outcomes for retail customers.⁵⁹

57 PSR [Unlocking account-to-account payments](#) (2022).

58 PSR [Unlocking account-to-account retail payments – competitive pricing](#) (2022).

59 FG22/5, [Final non-handbook guidance for firms on the consumer duty](#).

Digital wallets and account-to-account payments

- 4.6** If consumers increasingly expect to make retail transactions using their mobile devices, digital wallets could become an important part of a model that increases account-to-account payments in the retail sector.
- 4.7** Experiences in other countries provide an indication of the opportunities that digital wallets represent for the UK. Consumers in many countries can already make retail transactions using digital wallets or payment apps that are integrated with account-to-account payment systems. These countries include India (with providers such as PhonePe and Google Pay using UPI⁶⁰), China (WeChat Pay and Alipay), Spain (Bizum) and Poland (Blik) – to name but a few. It is true that there may be significant differences between these countries and the UK in terms of consumer preferences and habits. For instance, the PSR's [Market review of card scheme and processing fees Interim report, Annex 1](#) suggested that Visa and Mastercard appear to face a lower risk of 'rail substitution' in the UK than they do in some other countries.⁶¹ Nevertheless, overseas examples still provide insights, confirming the importance of a good customer experience and good consumer outcomes.

Potential disincentives for digital wallets to integrate account-to-account payments

- 4.8** As account-to-account payments become an option for a wider range of retail transaction types in the UK, various factors could impact whether and how far digital wallet providers integrate them. For instance, some pass-through digital wallet providers charge issuers for initiating card transactions. They may be reluctant to forgo these earnings unless account-to-account payments offer similar fees. Other disincentives for pass-through digital wallet providers to integrate account-to-account solutions could include the potential need to become FCA-regulated payment initiation service providers (PISPs), or to make UK-specific changes to their global digital wallet offerings.
- 4.9** E-wallets can already allow consumers to upload funds to e-money accounts provided by regulated payment service providers, or make account-to-account payments through regulated open banking services. If digital wallets face fees on transfers using certain payment methods, they may be incentivised to encourage payment methods associated with lower fees (with the savings potentially passed on to their users). However, the PSR's recently published [Market review of card scheme and processing fees](#) found that e-wallet providers currently lack the willingness or ability to steer consumers to lower-cost payment systems.⁶²
- 4.10** New digital wallets, including those backed by issuers, could struggle to enter or expand, due to the features and behaviours discussed in Chapter 3.

60 Created by the National Payments Corporation of India (NPCI), the Unified Payments Interface (UPI) facilitates real-time bank transfers through mobile phones.

61 MR22/1.9 Annex 1, [Market review of card scheme and processing fees, Annex 1](#), paragraph 1.170.

62 MR22/1.9, [Market review of card scheme and processing fees](#), paragraph 4.124.

Competition between payment systems

4.11 If digital wallet providers in the UK do integrate account-to-account payments, various factors could determine how such payments compete with other payment systems and whether that competition benefits service users.

- What fees, if any, would be involved in such payments and how would they be set? If digital wallet providers charge merchants or issuers fees for initiating account-to-account payments, they may capture the benefits of competition, without necessarily passing them on to retailers or consumers.
- Will consumers tend to use one digital wallet to make transactions in multiple retail settings (for example, online and in-store) and with multiple payment systems, such as cards and account-to-account? Alternatively, could consumers use multiple digital wallets, each focusing on a specific transaction type, payment method or retailer?
- When a consumer makes a retail payment with a digital wallet, who will choose the underlying payment system, and how? Will it be determined by the consumer, the merchant or the digital wallet?
- Can existing technology and infrastructure, such as POS terminals, be used to make account-to-account retail payments or will there need to be new investments – for example, in QR code readers? How would payment information be tokenised or encrypted?
- Will other payment providers, such as PISPs, be able to access digital wallets?

4.12 We welcome stakeholder views on the potential role of digital wallets in enabling competition between payment systems.

Questions

Question 9: What role could digital wallets have in increasing the take up of account-to-account payments in the UK retail sector? Please explain the reasons for your answer.

Question 10: Are digital wallets likely to integrate existing and potential account-to-account payment types, including for spontaneous purchases? If not, what barriers exist and what do you think needs to happen for digital wallets to integrate account-to-account payment types in a manner that enables effective customer access to them? Please explain your answer and provide any evidence you have.

Question 11: How do you think digital wallets should best develop to encourage effective competition between payment systems that benefits service users? This could involve:

- the fees involved in account-to-account payments
- the commercial agreements underlying the digital wallet user experience
- whether consumers are able to use one or multiple digital wallets
- how the underlying payment system is chosen
- any operational issues, including necessary investments in infrastructure
- whether any technical standards should be set, including through regulation
- whether other payment providers, such as PISPs, will be able to access digital wallets

5 Digital wallets and financial resilience

- 5.1** Digital wallets may affect financial resilience and systemic risk within the financial system – for example, through the potential for them to suffer an operational failure or outage.
- 5.2** If a digital wallet service stopped working, it would cause disruption to individual parties such as consumers, card issuers and retailers. However, in the FCA's view, this would not be likely to pose a threat to the wider financial system. Nor would it result in significant consumer harm if consumers could switch to rival digital wallets, or were still able to access their physical cards.
- 5.3** Eventually, over time, there may no longer be a need to issue physical payment cards. The fall-back option of physical cards could then become less reliable. Digital wallet providers that currently offer pass-through services may no longer rely on existing card schemes or payment rails. They may develop new business models that fall within the FCA's regulatory remit – for example, as issuers of payment instruments. As a result, these providers may need to become regulated e-money or payment institutions, unless a regulatory exclusion applies.⁶³ The FCA sets out its views on its regulatory perimeter in Chapter 8.
- 5.4** Risk of consumer harm may be greater where digital wallets hold e-money, or provide regulated payment services such as account-to-account payments or account information services through open banking. If a digital wallet provider suffered an operational failure, users of these services could experience significant disruption. However, in these cases, the digital wallet providers would be carrying out regulated activity and would fall within the FCA's regulatory perimeter in the absence of any applicable exclusion.

Question

Question 12: What harms are likely to arise in the event of a digital wallet provider's operational failure, either now or over the next five years?

63 <https://www.handbook.fca.org.uk/handbook/PERG/15/5.html>

6 Digital wallets and consumer rights and protections

Unauthorised transactions

- 6.1** To mitigate fraud risk, Google Pay and Apple Pay allow consumers to apply authentication when making payments, using a pin code or a biometric such as a fingerprint scan and linking the tokenised card to possession of a device. However, the underlying card issuers remain responsible for compliance with regulatory requirements for strong customer authentication.⁶⁴
- 6.2** In addition, consumers are protected against the impact of fraud, as the card issuers would be subject to liability provisions under the Payment Services Regulations 2017⁶⁵ for unauthorised transactions made through pass-through digital wallets.
- 6.3** We are interested to find out through this Call for Information what the growing use of digital wallets, and the allocation of responsibilities/liabilities between parties involved in transactions, means for the security of payments.

Digital wallets and open banking

- 6.4** Open banking has the potential to change how consumers use digital wallets by connecting the wallets directly to bank accounts. This convergence of wallets and accounts could mean that users could access a variety of financial services from a single wallet app without switching platforms. This could bring myriad benefits for consumers as it could consolidate a consumer's financial data in one place and, for example, allow them to make payments directly from their bank account.
- 6.5** However, this could also present challenges. The ability to share financial information between different banks and third-party providers creates new vulnerabilities that could potentially be exploited. The risk of a data breach increases when more financial information is shared between different parties. We would like to understand the likely impacts of digital wallets integrating with open banking, in particular for consumers.

64 https://www.handbook.fca.org.uk/techstandards/PS/2021/2021_01/?view=chapter

65 <https://www.legislation.gov.uk/uksi/2017/752/regulation/76>

Questions

6.6 **Question 13:** We are interested in how the growing use of digital wallets, and the allocation of responsibilities between parties involved in transactions, affects the security of payments. Your response might include consideration of the following questions:

- Do security features such as biometric authentication mean that digital wallets are less prone to fraud than alternative means of payment? Alternatively, do the speed and convenience of using digital wallets to make a payment make them a greater target for fraudsters? What evidence is there regarding the impact of digital wallets on the incidence of fraud?
- Does the current responsibility/liability model for payments initiated by pass-through digital wallets, set out above, provide the right incentives and controls for parties involved in transactions to implement appropriate anti-fraud measures?

We are interested in both the benefits and risks of digital wallets, arising now or in the future. Where possible, please provide evidence to support your answer.

Question 14: What do you think are the likely impacts of digital wallets integrating with open banking – for example, in terms of users' access to financial services, security, or any privacy issues that may arise?

Question 15: Are there any significant issues in relation to consumer rights and protections that could become relevant in the future? For instance, how significant is the risk that payment firms start to introduce new payment services through digital wallets that could disadvantage consumers without smartphones?

7 Legal powers and the regulatory perimeter

7.1 We have considered how regulatory powers relate to digital wallets and the issues we discuss in this Call for Information.

The PSR's view on its regulatory powers

7.2 The PSR is the economic regulator of payment systems. Our powers under FSBRA extend to designated payment systems and participants in regulated payment systems. Section 41 of FSBRA defines a 'payment system' as a system which is operated for the purpose of enabling persons to make transfers of funds and includes a system which is designed to facilitate the transfer of funds using another payment system. Once a payment system has been designated as a regulated system⁶⁶, the PSR has powers over participants in that system. 'Participants' in a designated payment system⁶⁷ include infrastructure providers, which can be any person who provides or controls any part of the infrastructure used for the purposes of operating the payment system. They also include any payment service providers which provide services to persons who are not participants in the system for the purposes of enabling the transfer of funds using the payment system.

7.3 While digital wallets have not been designated as regulated payment systems under section 43 of FSBRA, the PSR considers that, in principle, digital wallets could be used to enable persons to make transfers of funds or to facilitate the transfer of funds using other payment systems. It further considers that digital wallets could be characterised as 'participants' in a designated payment system. This is because, in principle, digital wallets could provide or control infrastructure used for the purposes of operating a regulated payment system or provide services for the purposes of enabling the transfer of funds using a regulated payment system. The exact characterisation might depend on specific services digital wallets provide and on the way they operate to provide such infrastructure or services.

The FCA's view on its regulatory perimeter

7.4 The Payment Services Regulations 2017 exclude activities of technical service providers that simply provide IT support for payment services, including data and authentication. This does not mean that these services are not regulated where they form part of a payment service, but in that case it is the payment service provider that is responsible for the provision of these services, and not the person to whom they have outsourced these technical services.

7.5 Pass-through digital wallets incorporate credit and debit cards within a mobile app to streamline payments. They provide an alternative way to initiate payments and rely on the underlying card schemes, such as Mastercard or Visa. They do not hold customer funds, unlike e-money institutions or other payment service providers. They rely on converting payment card details into a token that securely links the card number (PAN) to a virtual

⁶⁶ Section 43 of FSBRA.

⁶⁷ Section 42 of FSBRA.

card on a consumer's device. Once the token is generated, the transaction process replicates that of a card payment. They use NFC technology to enable contactless transactions. Card details are never revealed to the merchant.

- 7.6** A provider of a mobile app that transmits a payer's tokenised card details with a payment order for processing by another firm that is a payment service provider is not carrying out the FCA-regulated activity of issuing a payment instrument.
- 7.7** A 'payment instrument' is defined in regulation 2 of the Payment Services Regulations 2017 as:
'any (a) personalised device or (b) personalised set of procedures agreed between the payment service user and the payment service provider, used by the payment service user in order to initiate a payment order'.
- 7.8** The person who issues the payment instrument (such as a card issuer) is the person who agrees the set of procedures with the payer, and agrees that the payer can use those procedures to initiate an instruction to them requesting that they transfer funds to a payee.
- 7.9** A digital wallet provider may, however, fall within the FCA's regulatory perimeter and need to be registered or authorised as a payment, e-money or credit institution, if it provides regulated services. These include:
- account information services via a dashboard on the digital wallet's mobile app, where customers can view information from various payment accounts
 - account-to-account payment initiation services
 - e-money issuance by a staged digital wallet in exchange for customer funds, and execution of payment transactions by transferring funds from the customer to third parties.
- 7.10** Digital wallet providers may also develop new types of unregulated payment services. If widely used, these may increase the risk of consumer harm where lack of regulation means that consumers are not adequately protected – for example, from a provider's inadequate operational risk management or poor conduct.
- 7.11** Card tokenisation services, such as those provided by Google Pay and Apple Pay, are not in themselves FCA-regulated activities.
- 7.12** It is also worth noting that the FCA and PSR have concurrent competition powers under the Competition Act 1998 and the Enterprise Act 2002 that allow us to address competition harms that arise beyond our respective regulatory perimeters.⁶⁸

Questions

Question 16: Do you consider that the current regulatory framework is effective, so that digital wallets develop and work to promote the best interests of service users? If there are any current or future potential harms that you consider could be mitigated through changes to regulation, please explain what these are and provide evidence to support your answer.

Question 17: Please share any further views or evidence on digital wallets and their impact that are not captured by your responses to the previous questions.

⁶⁸ The FCA has concurrent competition powers in relation to the provision of financial services. The PSR has concurrent competition powers in relation to participation in payment systems.

8 Consultation questions

8.1 Stakeholders are invited to share their views on any of the questions listed below (it is not necessary to respond to all). Please send your submissions to us by 5pm on 13 September 2024. You can email your submissions to the PSR and FCA at:

FCA-PSR-digitalwallets@psr.org.uk

Question 1: What are the benefits of digital wallets for consumers, businesses and other parties in the payments value chain? Your answer might include comparison to alternative ways of initiating payments and consideration of the impact of digital wallets on UK payment trends and metrics, such as:

- the impact on consumer and business experience of payments
- the speed and convenience of checkout processes
- the rate of fraudulent transactions
- the cost of making or receiving retail payments for different types of party

Question 2: Please provide information on the use of digital wallets in the UK. We welcome information on the current situation as well as trends over time. We are interested in the percentage of retail transactions overall (by value and volume) that involve digital wallets, as well as more detailed information on usage – for example, by digital wallet provider, customer type and/or for different transaction types, such as:

- in-store/face-to-face retail payments
- retail payments using mobile web browsers, including on tablets
- retail payments using mobile apps, including on tablets
- retail payments using desktops/laptops
- other

Question 3: Are there likely to be any significant developments in the UK over the next five years regarding digital wallets – for instance, in terms of their usage, functionality or features? This could include the launch of entirely new functionalities/services or ones that are already available in other countries. As far as possible, please explain the likelihood of these developments, their expected magnitude and their implications for competition, innovation and service users.

Question 4: Are there any features related to the supply of digital wallets that cause harm to (or mean that payments could otherwise work better for) service users? We are particularly interested to hear about any features that may limit competition in payments or otherwise adversely impact service levels, degree of innovation or fees. Where available, please provide supporting evidence.

Question 5: Please explain whether any harms identified in your response to Question 4 could be outweighed by benefits associated with those same features – for instance, in terms of greater convenience or security. Where available, please provide supporting evidence.

Question 6: If you think that there are features that result in harm, what measures would be effective and proportionate to improve outcomes? Please explain:

- any technical standards that would need to be specified – for instance, through regulation
- whether the measure would be effective in isolation or other steps would also be required (if the latter, please specify what these might be)

Question 7: If not covered in your other responses, please explain what fees (if any) digital wallets charge and how these have changed over time. What impact do these fees have on UK service users? Please provide any evidence available to support your answer.

Question 8: Aside from fees charged to issuers, are there any other sources of potential revenue available to pass-through digital wallet providers? If so, what are their impacts on service users?

Question 9: What role could digital wallets have in increasing the take up of account-to-account payments in the UK retail sector? Please explain the reasons for your answer.

Question 10: Are digital wallets likely to integrate existing and potential account-to-account payment types, including for spontaneous purchases? If not, what barriers exist and what do you think needs to happen for digital wallets to integrate account-to-account payment types in a manner that enables effective customer access to them? Please explain your answer and provide any evidence you have.

Question 11: How do you think digital wallets should best develop to encourage effective competition between payment systems that benefits service users? This could involve:

- the fees involved in account-to-account payments
- the commercial agreements underlying the digital wallet user experience
- whether consumers are able to use one or multiple digital wallets
- how the underlying payment system is chosen
- any operational issues, including necessary investments in infrastructure
- whether any technical standards should be set, including through regulation
- whether other payment providers, such as PISPs, will be able to access digital wallets

Question 12: What harms are likely to arise in the event of a digital wallet provider's operational failure, either now or over the next five years?

Question 13: We are interested in how the growing use of digital wallets, and the allocation of responsibilities between parties involved in transactions, affects the security of payments. Your response might include consideration of the following questions:

- Do security features such as biometric authentication mean that digital wallets are less prone to fraud than alternative means of payment? Alternatively, do the speed and convenience of using digital wallets to make a payment make them a greater target for fraudsters? What evidence is there regarding the impact of digital wallets on the incidence of fraud?

- Does the current responsibility/liability model for payments initiated by pass-through digital wallets, set out in Chapter 6, provide the right incentives and controls for parties involved in transactions to implement appropriate anti-fraud measures?

We are interested in both the benefits and risks of digital wallets, arising now or in the future. Where possible, please provide evidence to support your answer.

Question 14: What do you think are the likely impacts of digital wallets integrating with open banking – for example, in terms of users' access to financial services, security, or any privacy issues that may arise?

Question 15: Are there any significant issues in relation to consumer rights and protections that could become relevant in the future? For instance, how significant is the risk that payment firms start to introduce new payment services through digital wallets that could disadvantage consumers without smartphones?

Question 16: Do you consider that the current regulatory framework is effective, so that digital wallets develop and work to promote the best interests of service users? If there are any current or future potential harms that you consider could be mitigated through changes to regulation, please explain what these are and provide evidence to support your answer.

Question 17: Please share any further views or evidence on digital wallets and their impact that are not captured by your responses to the previous questions.

Annex

Evidence on trends in the use of digital wallets

Table 1: Evidence on the use of digital wallets for all transactions

Source	Results
<p><u>Financial lives survey (2022)</u></p> <p>FCA</p>	<ul style="list-style-type: none"> 47% of UK adults stated that they had used a digital wallet in the 12 months to May 2022, up from 14% in 2017. Source: page 217. 47% of respondents used a digital wallet in the 12 months to May 2022. These users were more likely to be younger adults aged 18 to 34 (74%) than adults aged 55 and over (23%), and more likely to be men (52%) than women (43%). Source: page 217. Of those who had used a digital wallet in the 12 months to May 2022, 58% had used Apple Pay, 30% Google Pay, 24% PayPal digital wallet, 8% Android Pay, 5% a mobile or digital wallet provided by their current account provider, 2% a mobile or digital wallet provided by a credit card provider, 1% Samsung Pay, 1% Cash App, and 1% another provider. Source: page 217.
<p><u>UK payment markets (2023)</u></p> <p>UK Finance</p>	<ul style="list-style-type: none"> 30% of all UK adults were registered to use mobile payment services in 2022, and 23% used mobile payments at least monthly. By comparison, 54% of those aged between 16 and 24 were registered, and 46% used them at least monthly. Source: page 29. Of all UK adults registered to use mobile payments, 76% used them at least monthly and 54% used them at least every week. Source: page 29.

Consumer payment preferences (2022)

Mintel

- Mintel defines ‘mobile wallets’ (including Apple Pay and Google Pay) and ‘online wallets’ (including PayPal).
- 15% of internet users aged 18 and over said they used a ‘mobile wallet’ weekly in 2021. 18% said that they used an ‘online wallet’ weekly in 2021. Source: figure 28.
- 36% of internet users aged 18 and over said they used a ‘mobile wallet’ at least annually in 2021. 63% said that they used an ‘online wallet’ at least annually in 2021 Source: figure 28.

Table 2: Evidence on the use of digital wallets for in-store transactions

Source	Results
<p><u>The global payments report (2023)</u></p> <p>Worldpay from FIS®</p>	<ul style="list-style-type: none"> • An estimated 10% of UK transactions (by value) made at POS terminals in 2022 involved a digital wallet, up from 4% in 2019. The value of transactions made at POS terminals using digital wallets is predicted to grow 25% CAGR through 2026. Source: pages 114-115.
<p><u>The global payments report (2024)</u></p> <p>Worldpay from FIS®</p>	<ul style="list-style-type: none"> • An estimated 14% of UK transactions (by value) made at POS terminals in 2023 involved a digital wallet. The value of transactions made at POS terminals using digital wallets is predicted to grow to 29% in 2027. Source: page 113.
<p><u>How UK consumers want to shop (2023)</u></p> <p>Takepayments</p>	<ul style="list-style-type: none"> • 20% of survey respondents (UK residents) said that mobile payments were their preferred payment method when spending in person.
<p><u>Financial lives survey – Retail banking, savings and payments selected findings (2022)</u></p> <p>FCA</p>	<ul style="list-style-type: none"> • In May 2022, 35% of UK adults reported making a contactless payment by tapping a mobile device linked to either a debit card or a credit card. Source: unpublished FCA analysis of slide 29. • 11% of UK adult survey respondents said that the last time they bought an everyday item from a local shop, the main payment method used was a digital wallet. Of those who had bought a high-value item from a local shop, only 4% said that they last used a digital wallet. Source: slide 32. • 26% of those aged between 18 and 24 reported using a digital wallet the last time they visited a local shop to buy an everyday item. Source: unpublished analysis by the PSR.

Source	Results
<p><u>Consumer payment preferences (2022)</u></p> <p>Mintel</p>	<ul style="list-style-type: none"> Of internet users aged 18 and over in 2021, 5% reported that an 'online wallet' would be their preferred payment method when buying an item costing under £20 in person, while 9% reported that their preferred method would be a 'mobile wallet'. These percentages were slightly lower for items costing over £100 (4% and 6%, respectively). Source: figure 29.
<p><u>Attitudes toward payment methods (2022)</u></p> <p>EVO Payments</p>	<ul style="list-style-type: none"> 64% of UK survey respondents stated that they use contactless electronic payments with mobile phone, smartwatch or other device (compared to 54% of respondents from other countries). Of these UK survey respondents, 42% made this type of payment at least once a day. Source: slide 15. 36% of UK survey respondents gave contactless payments using a mobile phone, smartwatch or other device as their first or second choice for the payment form they used most often (compared to 15% of respondents from other countries). Source: slide 17. 23% of UK survey respondents made a contactless payment using a mobile phone, smartwatch or other device for their last offline payment (compared to 9% of respondents from other countries). Source: slide 23.
<p><u>Contactless mobile payments (2018)</u></p> <p>PSR</p>	<ul style="list-style-type: none"> 24% of respondents (internet users aged 16 and over) had made a contactless mobile payment in the six months prior to February 2018, compared to 16% in the six months prior to April 2017. Source: figure 2. 15% of respondents had made a contactless payment via a wearable device in the six months prior to February 2018, compared to 11% in the six months prior to April 2017. Source: figure 2.

Table 3: Evidence on the use of digital wallets for online transactions

Source	Results
<p><u>The global payments report (2023)</u></p> <p>Worldpay from FIS®</p>	<ul style="list-style-type: none"> Digital wallets were estimated to be involved in 35% of all UK e-commerce transactions, by value, in 2022 (up from 31% in 2021). Source: page 114.
<p><u>The global payments report (2024)</u></p> <p>Worldpay from FIS®</p>	<ul style="list-style-type: none"> Digital wallets were estimated to be involved in 38% of all UK e-commerce transactions, by value, in 2023. This is forecast to increase to 50% in 2027. Source page 113.

Source	Results
<p><u>Financial lives survey – Retail banking, savings and payments selected findings (2022)</u></p> <p>FCA</p>	<ul style="list-style-type: none"> • 7% of UK adults reported using a digital wallet the last time they bought an everyday item online. Source: slide 32. • 3% of UK adults reported using a digital wallet the last time they bought a high-value item online. Source: unpublished analysis of slide 32 by the FCA. • 17% of those aged between 18 and 24 reported using a digital wallet the last time they bought an everyday item online. Source: unpublished analysis of slide 32 by the PSR.
<p><u>Consumer payment preferences (2022)</u></p> <p>Mintel</p>	<ul style="list-style-type: none"> • Of internet users aged over 18 in 2021, 23% reported that an 'online wallet' would be their preferred payment method when buying an item costing under £20 online, while 8% reported that their preferred method would be a 'mobile wallet'. These percentages were slightly lower for items costing over £100 (18% and 5%, respectively). Source: figure 29.
<p><u>Attitudes toward payment methods (2022)</u></p> <p>EVO Payments</p>	<ul style="list-style-type: none"> • 20% of UK respondents gave digital wallets as their first or second choice for the payment form they used most often for online payments (compared to 13% of respondents from other countries). Source: slide 18. • 19% of UK respondents used a 'virtual wallet' for their last online payment. Source: slide 22.

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