

United States House of Representatives
Committee on Financial Services
2129 Rayburn House Office Building
Washington, D.C. 20515

April 25, 2022

Memorandum

To: Members, Committee on Financial Services
From: FSC Majority Staff
Subject: April 28, 2022, Hearing entitled, “What’s in Your Digital Wallet? A Review of Recent Trends in Mobile Banking and Payments”

The Task Force on Financial Technology will hold a hybrid hearing entitled, “What’s in Your Digital Wallet? A Review of Recent Trends in Mobile Banking and Payments” on April 28, 2022 at 2:00 p.m. ET in room 2128 of the Rayburn House Office Building, and on the virtual meeting platform Cisco Webex. The single-panel hearing will have the following witnesses:

- **Raúl Carrillo**, Associate Research Scholar, Yale Law School; Deputy Director, Law and Political Economy Project
- **Mishi Choudhary**, Legal Director, Software Freedom Law Center
- **Renita Marcellin**, Senior Policy Analyst, Americans for Financial Reform
- **Kia McCallister-Young**, Director, America Saves, Consumer Federation of America
- **Scott Talbott**, Senior Vice President of Government Affairs, Electronic Transactions Association

Overview

Digital wallets are software applications that store payment or account details to facilitate electronic payments and transactions.¹ Digital wallets have increasingly become part of our payments ecosystem, transforming how consumers make payments to merchants as well as with each other.² Large technology companies such as Apple and Google have grown their payments offerings, and fintech companies such as PayPal (and its subsidiary Venmo), Block (formerly known as Square, and its subsidiary CashApp), and Zelle have become household names. However, digital wallets have raised important policy questions about the payments system, including the need for real-time payments, privacy, cybersecurity, consumer protection, and financial inclusion. In addition to being used for payments, digital wallets have also emerged in the digital assets space, offering ownership of, access to, and transactions with cryptocurrencies, including stablecoins, a subset of cryptocurrencies that are pegged to reserve assets.

The Task Force on Financial Technology has previously explored consumer protection issues related to the rise of fintech products and services, including Buy Now Pay Later, Earned Wage Access, and Overdraft Avoidance.³ The Task Force has also examined developments in consumer data sharing⁴ and policy considerations related to Central Bank Digital Currencies (CBDCs).⁵ This hearing will examine trends in mobile banking and payments, the current landscape of digital wallets, and their impact on users.

¹ This memo was prepared with assistance from Congressional Research Services (CRS). For more insight, see CRS, [Digital Wallets and Selected Policy Issues](#) (Apr. 18, 2022).

² See Nasdaq, [The Rise of the Digital Wallet and Stocks to Watch](#) (Apr. 9, 2021).

³ House Financial Services Committee (HFSC), [Buy Now, Pay More Later? Investigating Risks and Benefits of BNPL and Other Emerging Fintech Cash Flow Products](#), 117th Cong. (Nov. 2, 2021).

⁴ HFSC, [Preserving the Right of Consumers to Access Personal Financial Data](#), 117th Cong. (Sept. 21, 2021).

⁵ HFSC, [Digitizing the Dollar: Investigating the Technological Infrastructure, Privacy, and Financial Inclusion Implications of Central Bank Digital Currencies](#), 117th Cong. (June 15, 2021).

Recent Trends in Consumer Use of Digital Wallets

Digital wallets store bank account information, payment information, and cash balances in smartphone-linked applications (apps).⁶ These apps require the use of at least one piece of internet-connected hardware. While some apps may only work with specific devices, others can be downloaded and accessed from any device, including a phone, computer, or other internet-enabled device. Most digital wallets in the U.S. use existing payment systems such as automated clearing house (ACH) and card networks, and are linked to consumer accounts at financial institutions.⁷

Digital wallets are used in numerous ways, including to make retail payments, enable peer-to-peer (p2p) transfers between two users, store funds, or safeguard other relevant financial information. Retail specific digital wallets are offered by merchants, allowing individuals to store payment card information, upload funds to gift cards, or prefund a balance on an app.⁸ These wallets may also allow users to scan unique Quick Response (QR) codes at the point-of-sale (POS) check-out to initiate the transaction.⁹ General purpose mobile wallets provide much of the same functionality as retail specific wallets but are not limited to a specific merchant and can be used with multiple institutions. For example, consumers may use a wallet to make payments at a grocery store or to pay rent. The companies that issue general purpose wallets are typically regulated as money transmitters.¹⁰ Transfers of funds usually can only occur when users have same digital wallet apps, raising interoperability issues.¹¹

Digital wallets are also increasingly used for cryptocurrency transactions. Digital asset wallets are computer software applications that track secret keys to digitally sign cryptocurrency transactions on distributed ledgers and store cryptocurrencies, including stablecoins, and other digital assets. These wallets can also store cryptocurrency-based credit cards, or allow users to purchase cryptocurrencies directly, with custodial wallets being offered by third parties such as cryptocurrency exchanges, and non-custodial wallets removing intermediaries, allowing users to have control of their wallet entirely.¹² Further, cold-storage wallets are a type of hardware that allow users to store cryptocurrencies offline, reducing the threat of being hacked.¹³

Overall, the global mobile wallet market has grown dramatically, reaching a value of \$120 billion in 2021,¹⁴ with Venmo's customers estimated at 70 million users, and Cash App's userbase estimated at 44 million users.¹⁵ Other market leaders have also offered new payments features, such as Apple's Tap to Pay function which allows contactless payments through an NFC (Near Field Communication) chip built

⁶ [What is a crypto wallet?](#) Coinbase (accessed Apr. 13, 2022).

⁷ Mobile wallets linked to smartphones are apps that come pre-programmed and operate strictly on certain smartphones. Examples are Apple Wallet and Pay, and Google Pay. Users store debit card, credit card, or ACH details in the software application that fund transactions in the apps' 'Pay' function, including performing payments, peer-to-peer transfers, and value storage. See CRS, [Digital Wallets and Selected Policy Issues](#) (Apr. 18, 2022).

⁸ *Id.*

⁹ *Id.*

¹⁰ For more on money transmitters, see CRS, [Telegraphs, Steamships, and Virtual Currency: An Analysis of Money Transmitter Regulation](#) (Aug. 20, 2020).

¹¹ For example, a Venmo user cannot send a payment to someone using Apple Pay.

¹² [Custodial Wallets vs. Non-Custodial Crypto Wallets](#), CoinDesk (Mar. 9, 2022).

¹³ See CRS, [Digital Wallets and Selected Policy Issues](#) (Apr. 18, 2022).

¹⁴ IMARC, [Mobile Wallet Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027](#) (accessed Apr. 13, 2022).

¹⁵ See Business of Apps, [Venmo Revenue and Usage Statistics \(2022\)](#); see also Business of Apps, [Cash App Revenue and Usage Statistics](#) (2022).

into newer iPhone model.¹⁶ French bank BNP Paribas has introduced a biometric payment card, embedding a fingerprint sensor on the card body to provide extra authentication.¹⁷

Digital wallets can also provide new ways for cross-border payments and remittances to occur. Remittances are the transfers of money and capital, often sent by migrants communities to their home countries.¹⁸ During the COVID-19 pandemic, digital remittances have become even more prevalent, as people increasingly rely on digital payment methods to carry out transactions.¹⁹ By 2022, the digital remittance market garnered a market value of \$18.16 billion.²⁰ Some stakeholders have advocated for a more inclusive and trusted digital remittance system that should operate within regulatory and supervisory frameworks and be “accessible, reliable, valuable, affordable, profitable, and interoperable.”²¹ In the last few years, fintech companies such as Wise and Remitly have offered remittance services to increasingly more countries.²² While some fintechs claim that digital remittances can enhance financial inclusion and facilitate faster, cheaper, and more convenient remittances, there are also existing vulnerabilities in the digital remittance system.²³ For instance, stakeholders have pointed out some customers may lack trust in digital payments, and that customers living in isolated areas may be especially vulnerable, as they may not have access to customer support if applications fail, or may lack technological or financial literacy to fully understand how these electronic transactions operate.²⁴

Regulatory Oversight of Digital Wallets

In the U.S., multiple state and federal regulators enforce the regulation of payment systems. Regulation E, which implements the Electronic Fund Transfer Act (EFTA), protects consumers who conduct electronic fund transfers and remittance transfers,²⁵ mandating consumer disclosures, limiting consumer liability for unauthorized transfers, and maintaining procedures for resolving errors.²⁶ Additionally, the Gramm-Leach-Bliley Act (GLBA) requires financial regulators to establish disclosure requirements to protect private information.²⁷ Since most digital wallets and payments companies generate and collect information about users as part of their business models, under GLBA, these companies are required to provide certain protections, including privacy notices to consumers about how they use their data. While safeguarding the confidentiality of nonpublic personal information from unauthorized access is critical, they can typically share information with affiliates and third parties unless users opt out.²⁸

Digital wallet providers have been subject to investigations from financial regulators and have been involved in recent litigation. In October 2021, in advance of a potential rulemaking, the Consumer Financial Protection Bureau (CFPB) issued an order to collect information regarding payments products from large technology companies including Amazon, Apple, Google, PayPal, and Square.²⁹ The CFPB

¹⁶ [Tap To Pay On iPhone: What Is It & When Can You Use It?](#), ScreenRant (Feb. 8, 2022); see also, [Beyond Apple Pay: Tech Giant Prepares to Take on Banks, Fintech](#), TheStreet (Mar. 31, 2022).

¹⁷ [7 Game-Changing Innovations That Will Re-Boot Banking](#), Thales (Oct. 28, 2021).

¹⁸ CRS, [Remittances: Background and Issues for Congress](#) (Dec. 2, 2019).

¹⁹ Fact.MR, [Digital Remittance Market](#) (accessed Apr. 13, 2022).

²⁰ *Id.*

²¹ Center for Strategic & International Studies, [Developing Inclusive Digital Payment Systems](#) (Sept. 21, 2021).

²² See e.g. [UK-based fintech firm Wise launches service that lets Indian users send money abroad](#), CNBC (June 1, 2021); see also, [How Remitly Has Finally Disrupted the Remittances Industry](#), The Motley Fool (Mar. 22, 2022); see also, [Remittance Startup Remitly Launches IPO Roadshow for Investors](#), PYMNTS (Sept. 14, 2021).

²³ See e.g. [How digital remittances can help drive sustainable development](#), World Bank Blogs (Apr. 15, 2019).

²⁴ Center for Strategic & International Studies, [Developing Inclusive Digital Payment Systems](#) (Sept. 21, 2021).

²⁵ [12 C.F.R. §1005](#) (2020).

²⁶ CRS, [U.S. Payment System Policy Issues: Faster Payments and Innovation](#) (Sept. 23, 2019).

²⁷ CRS, [Big Data in Financial Services: Privacy and Security Regulation](#) (Nov. 15, 2019).

²⁸ *Id.*

²⁹ CFPB, [Rohit Chopra’s Statement Regarding the CFPB’s Inquiry into Big Tech Payment Platforms](#) (Oct. 21, 2021); see also, CFPB, [CFPB Orders Tech Giants to Turn Over Information on their Payment System Plans](#) (Oct. 21, 2021).

did so to monitor risks to the public and to learn more about how the companies operate and safeguard the privacy of customer data. The CFPB also requested this information from the Chinese tech giants Alipay and WeChatPay, noting that users in that country have limited choices due to the extent of their reach.³⁰

Policy Considerations regarding Digital Wallets

Financial Inclusion – Proponents of digital wallets point to the high adoption rates of these apps as evidence that they can improve financial inclusion towards the payments system. In countries with developing financial markets and limited access to banking products, stakeholders have argued that digital wallets may allow users access to alternative forms of storage of funds than traditional banking products, thereby increasing financial access.³¹ In the U.S. however, as more consumers comparatively have bank accounts, stakeholders have argued that digital wallets serve only as an ancillary tool.³² In 2019, 5.4 percent of U.S. households were unbanked, which represents approximately 7.1 million households, with Black, Latinx, and Native American households disproportionately affected.³³ The top reasons for not having a bank account included not being able to maintain a minimum balance, distrust of banks, and high fees.³⁴ Financial inclusion advocates in the U.S. have argued that, while digital wallets may increase convenience for users with access to smartphones, financial inclusion is an issue of access to bank accounts, and since bank accounts are usually needed to access digital wallet services in the U.S., they may not provide the desired improvement in financial inclusion.³⁵

Data Privacy and Security –The proliferation of digital wallet apps has also raised policy concerns around which entities have access to consumer data, who owns the data, and whether it can be monetized.³⁶ Section 1033 of the Dodd-Frank Act grants consumers the right to access information about their financial accounts, and requires any company or individual offering financial services to provide it. The CFPB has been encouraged by policymakers to continue its Section 1033 work through proposed rulemaking, and create clear guardrails on how customers can access their financial information as well as share with third parties.³⁷ Additionally, as financial services become increasingly digital, questions about consumers authentication and digital identity have grown, with large technology companies such as Apple, Stripe, and Mastercard developing products and services in digital identity verification.³⁸ Additionally, cyberattacks, including account takeover fraud, money laundering, and breaches of personally identifiable information (PII) and other sensitive data, increased in 2020.³⁹ Companies such as Zelle, which was created in 2017 by large banks to facilitate faster digital money transfers, have been criticized for being unable to undo fraudulent transactions.⁴⁰ Digital systems have also been increasingly impacted by terrorism financing and other illicit activity.⁴¹

Consumer Protection – Digital wallets and payment apps have been subject to increasing complaints by consumers. A June 2021 report by the U.S. PIRG examined complaints to the CFPB on digital payment apps and found that most complaints consisted of the following three issues: “problems

³⁰ CFPB, [Rohit Chopra’s Statement Regarding the CFPB’s Inquiry into Big Tech Payment Platforms](#) (Oct. 21, 2021)

³¹ See e.g. Dean Karlan Et al., [Research and Impacts of Digital Financial Services](#), National Bureau of Economic Research (NBER) (Sept. 2016).

³² See CRS, [Digital Wallets and Selected Policy Issues](#) (Apr. 18, 2022).

³³ FDIC, [How America Banks: Household Use of Banking and Financial Services](#) (2019).

³⁴ *Id.*

³⁵ See e.g. Federal Reserve Bank of Atlanta: Center for Financial Innovation and Stability, [Digital Currency, Digital Payments, and the ‘Last Mile’ to the Unbanked](#), at 4 (Aug. 2021).

³⁶ CRS, [U.S. Payment System Policy Issues: Faster Payments and Innovation](#) (Sept. 23, 2019).

³⁷ See e.g. HFSC, [Preserving the Right of Consumers to Access Personal Financial Data](#), 117th Cong. (Sept. 21, 2021).

³⁸ [The rise of digital wallets and the impact on digital identities](#), Nexus Group (Jan. 7, 2021).

³⁹ [INTERPOL report shows alarming rate of cyberattacks during COVID-19](#), INTERPOL (Aug. 4, 2020).

⁴⁰ [Fraud Is Flourishing on Zelle. The Banks Say It’s Not Their Problem](#), New York Times (Mar. 6, 2022).

⁴¹ Center for Strategic & International Studies, [Developing Inclusive Digital Payment Systems](#) (Sept. 21, 2021).

managing, opening or closing accounts; problems with fraud or scams; and problems with transactions (including unauthorized transactions).⁴² Since it started accepting complaints in 2017, the CFPB has received 9,277 complaints related to the ‘mobile or digital wallet’ category.⁴³ In addition to facing problems with fraud, some consumers have complained about losing the balances that they were holding in digital wallets when they face problems with the digital wallet company.⁴⁴ An estimated 18 million Americans were defrauded through scams involving digital wallets and p2p apps in 2020.⁴⁵

The CFPB has also sought to clarify the extent to which existing consumer protections obligations cover digital wallets and payments apps. Typical consumer protections provided by Regulation E and Regulation Z, both of which are promulgated by the CFPB, are extended to a consumer that uses a debit card, credit card, or a prepaid card stored on a mobile digital wallet.⁴⁶ Recent rulemakings by the CFPB, such as the 2019 prepaid card rule, effectively extended some of the protections to certain digital wallet transactions.⁴⁷ However, in 2019, PayPal sued the CFPB, claiming that “digital wallets should not be subject to the same fee disclosures as prepaid cards because they are inherently different products.”⁴⁸ In the appeals court, the CFPB argued that the Dodd-Frank Act granted “the authority to dictate the structure, form and content of disclosures used in connection with a wide range of financial products.”⁴⁹

Consumers may also not understand that funds kept in digital wallets or by payment apps may not be insured and protected to the same degree as their bank accounts. As funds stored in a wallet may not be considered deposits, they are generally ineligible for deposit insurance. Some wallet providers offer ‘pass-through insurance’ acting as a custodian by depositing the funds into an FDIC insured bank account.⁵⁰ However, as this insurance is not typically offered, stakeholders have questioned whether users recognize their wallet balances may be uninsured, raising systemic risk concerns.⁵¹

Concentrations of Economic Power – Some digital wallet providers have sought to create “Super Apps” that combine typically unrelated financial services including payments, savings, bill payment, direct deposit, shopping, and cryptocurrency services into a single smartphone-enabled platform.⁵² This has raised concerns that these digital wallet providers may have unparalleled access to consumer behaviors and data, allowing them to cross-sell to consumers more easily to grow market share, create unhealthy concentrations of economic power, and engage in anti-competitive behavior.⁵³ Additionally, regarding Digital Asset custodial wallets for stablecoins specifically, federal regulators through the President’s Working Group on Financial Markets have suggested the need for greater federal oversight, restrictions on affiliation with commercial entities, and limits on the use of users’ transaction data.⁵⁴

⁴² U.S. PIRG, [Virtual Wallets, Real Complaints: How digital payment apps put consumers’ cash at risk](#) (June 2021).

⁴³ *Id.*

⁴⁴ See, e.g., [Woman kicked off Venmo warns other users about keeping a balance](#), WMAR 2 News (May 18, 2021).

⁴⁵ [Fraud Is Flourishing on Zelle. The Banks Say It’s Not Their Problem](#), New York Times (Mar. 6, 2022).

⁴⁶ See CFPB, [12 CFR Part 1005 - Electronic Fund Transfers \(Regulation E\)](#) (accessed Apr. 13, 2022); see also CFPB, [12 CFR Part 1026 - Truth in Lending \(Regulation Z\)](#) (accessed Apr. 13, 2022).

⁴⁷ See CFPB, [New protections for prepaid accounts](#) (accessed Apr. 13, 2022).

⁴⁸ [PayPal suit poses broad threat to CFPB authority](#), American Banker (Mar. 23, 2022).

⁴⁹ *Id.*

⁵⁰ CRS, [Digital Wallets and Selected Policy Issues](#) (Apr. 18, 2022); see also, for example, PayPal’s terms on their pass-through insurance program at PayPal, [Terms](#) (accessed Apr. 13, 2022).

⁵¹ See Adam Levitin, [Pandora’s Digital Box: The Promise And Perils Of Digital Wallets](#), University of Pennsylvania Law Review (Jan. 2018).

⁵² [PayPal launches its ‘super app’ combining payments, savings, bill pay, crypto, shopping and more](#), TechCrunch (Sept. 21, 2021).

⁵³ See e.g., [PayPal’s new features help offset economic headwinds](#), American Banker (Feb. 2, 2022).

⁵⁴ President’s Working Group on Financial Markets, FDIC, and OCC, [Report on Stablecoins](#) (Nov. 2021).

Appendix

Legislation –

- **H.R. _____, the “Protecting Consumers From Payment Scams Act,”** would update the Electronic Fund Transfer Act to close gaps and clarify ambiguities when consumers are defrauded into sending money by covered payment apps. The bill would, among other things, protect consumers from liability when they are defrauded into initiating a transfer; eliminate EFTA’s exemption for bank wire transfers; and clarify when EFTA’s error resolution duties apply.