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WHY SHOULD THE FED ISSUE A DIGITAL DOLLAR? THE MONETARY ANCHOR ARGUMENT

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This Article explores the rationale behind issuing a central bank digital currency (CBDC), specifically a digital dollar, as a monetary anchor for private money. The monetary anchor concept refers to the role of public money (central bank-issued currency) in maintaining confidence in private money, such as commercial bank deposits. The Article first examines the historical evolution of the monetary anchor, tracing the shift from gold-backed money to fiat currency and highlighting the role of the Federal Reserve in promoting confidence in private money through mechanisms such as check clearing. The Article then identifies two primary threats to the monetary anchor function of public money in the contemporary financial system. First, the increasing dominance of private payment networks such as Visa and Mastercard has created an oligopolistic environment, which leads to higher interchange fees and associated costs, making private money expensive for merchants and limiting their willingness to accept it as a medium of exchange. Second, the rise of fintech platforms (e.g., PayPal, Venmo, and various Banking-as-a-Service (BaaS) providers) has enabled non-bank entities to provide deposit-like services outside the traditional regulatory framework undermining confidence in private money as a store of value. The 2024 collapse of Synapse, a fintech firm that left thousands of depositors unable to access their funds, illustrates the vulnerabilities created by the current regulatory structure. To address these challenges, the Article evaluates CBDC as a potential solution. A digital dollar, issued as a liability of the Federal Reserve, would provide a publicly backed, universally accepted medium of exchange and store of value, thereby strengthening confidence in private money.

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INTRODUCTION

In this Article, I consider the monetary anchor[1] argument in favor of a central bank digital currency (CBDC) available to the public. The argument as used by, for example, the European Central Bank (ECB) in its work on the digital euro,[2] provides

1. The term "monetary anchor" as used in this article is derived from the legislative instruments for the digital euro prepared by the European Commission. *Proposal for a Regulation of the European Parliament and of the Council on the Establishment of the Digital Euro*, COM (2023) 368 final (June 28, 2023) [hereinafter Digital Euro Regulation]. It refers to the role of central bank money as the foundation for users' confidence in commercial bank money and in the euro as a currency. *Id.* recital 3.

2. The European Central Bank (ECB) initiated the digital euro project through its 2020 report. EUR. CENT. BANK, REPORT ON A DIGITAL EURO (2020), www.ecb.europa.eu/pub/pdf/other/Report_on_a_digital_euro~4d7268b458.en.pdf. In July 2021, the ECB's Governing Council took the decision to launch the digital euro project. Press Release, Eur. Cent. Bank, Eurosystem Launches Digital Euro Project (July 14, 2021), www.ecb.europa.eu/press/pr/date/2021/html/ecb.pr210714~d99198ea23.en.html. The project's investigation phase ran from October 2021 to October 2023 and involved extensive research and analysis of various design and distribution models for the digital euro. The finding of the investigation phase collected in the ECB's report titled "A Stocktake on the Digital Euro" published in October 2023, formed the basis for the decision to launch the preparation

that a CBDC—as a new form of public money—would serve as an anchor for private money, such as commercial bank deposits. A CBDC could serve as an anchor in the sense that it would allow users to convert deposits into public money on a one-to-one basis, or, at par, even if physical currency continues to decline.[3] This convertibility, in turn, would bolster confidence in private money, ensure the payment system's smooth functioning, and enhance the central bank's capacity to conduct monetary policy effectively.[4] The critical inquiry, then, is whether confidence in private money is threatened and, if so, whether issuing a CBDC would be an effective way to reinforce that confidence.

In this Article, I answer both questions affirmatively whilst acknowleding that the issuance of a CBDC is a political decision as much as a matter of rational institutional choice. My answer builds on the well-established proposition that confidence in private money is, first and foremost, a function of confidence in the regulatory framework, in which private money operates.[5]

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phase, which started in November 2023. EUR. CENT. BANK, A STOCKTAKE ON THE DIGITAL EURO 42 (2023), https://www.ecb.europa.eu/euro/digital_euro/progress/shared/pdf/ecb.dedocs231018.en.pdf?6fbcce71a4be7bb3b-8fabc51fb5c7e2d. This phase focuses on developing the actual design and operational aspects of the digital euro. *Id.* The ECB is collaborating with national central banks within the Eurosystem to explore and test the functionalities and technical solutions required for the digital euro. *Id.*

3. Fabio Panetta, Member of the Exec. Bd., Eur. Cent. Bank, Central Bank Digital Currencies: Defining the Problems, Designing the Solutions (Feb. 18, 2022) (transcript available at www.ecb.europa.eu/press/key/date/2022/html/ecb.sp2202181~938e881b13.en.html).

4. Digital Euro Regulation, *supra* note 1. As the preamble to the Regulation notes:

> The acceptability and fungibility of commercial bank money rely on its convertibility on a one-to-one basis to central bank money with legal tender, which serves as a monetary anchor. That monetary anchor is at the core of the functioning of monetary and financial systems. It underpins users' confidence in commercial bank money and in the euro as a currency and is therefore essential to safeguard the stability of the monetary system in a digitalised economy and society. As central bank money in physical form alone cannot address the needs of a rapidly digitalising economy, this could gradually remove the monetary anchor for commercial bank money. It is therefore necessary to introduce a new form of official currency with legal tender which is risk free and helps visualise the convertibility at par of the money issued by various commercial bank.

Id. ¶ 3.

5. Cyril Monnet & Daniel R. Sanches, *Private Money and Banking Regulation*, 47 J. OF MONEY, CREDIT AND BANKING 1031 (2015) (showing that, without regulation, a competitive banking system cannot generate a socially

Private money is generated by private institutions, such as commercial banks.[6] The regulatory frameworks applicable to these institutions, such as banking regulations, promotes that confidence by making sure that: (i) these institutions can meet the obligation that private money represents, namely to redeem it, on demand and at par, for public money,[7] and (ii) private money is broadly accepted.[8] As such, the regulatory framework builds confidence in private money as both a medium of exchange and store of value—the two functions traditionally associated with money[9]—which the monetary anchor function of public money reinforces.

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optimal quantity of private money); Gary Gorton, *The Regulation of Private Money*, 52 J. Money, Credit and Banking 21 (2020) (arguing that the regulation of private money is essential to prevent financial crises, as historical evidence demonstrates that confidence in private money depends on its backing by high-quality collateral or government insurance).

6. Michael McLeay, Amar Radia & Ryland Thomas, *Money Creation in the Modern Economy*, 54 Bank of Eng. Q. Bull. 14, 14 (2014), www.bankofengland.co.uk/-/media/boe/files/quarterly-bulletin/2014/money-creation-in-the-modern-economy.pdf. Public money, in contrast, is issued by the central bank and/or government. It represents a liability of the central bank and/or government, unlike private money, which represents a liability of a commercial bank. Public money also enjoys legal tender status whereas private money does not. For a discussion of the regulatory framework applicable to currency, as the only form of public money currently available to the public, *see infra* Section I.A.

7. This is achieved through a combination of regulatory requirements, such as reserve, capital and liquidity requirements, as well as deposit insurance. *See generally* Richard Scott Carnell et al., Law of Fin. Inst. (7th ed. 2021).

8. Private money is broadly accepted if its issuers can meet the obligation that private money represents but also when the cost of such acceptance is not excessive. Historically, antitrust law was the principal regulatory framework used to control that cost. For a discussion of its application in the payment sector, *see infra* Section II(A).

9. John Maynard Keynes, A Treatise on Money 3, 32 (1930). The third traditional function of money is that of a unit of account. *Id.* at 3–4. This function allows for the consistent comparison and recording of economic transactions. In the United States, the establishment of the U.S. dollar as the standard unit of account can be traced back to the Coinage Act of 1792, which set the U.S. dollar as the nation's official currency and defined its value based on specific weights of gold and silver, thereby providing a stable basis for economic measurement and transactions. *See* Andrew Madsen Smith, Coins and Coinage: The United States Mint, Philadelphia, History, Biography, Statistics, Work, Machinery, Products, Officials 6, 7 (1881). In this Article, I focus on the two other functions because the unit of account function of a dollar does not appear to be threatened, at least domestically, through the emergence of alternatives.

I identify two gaps in the current regulatory framework that have the potential to undermine that confidence. The first gap relates to the acceptance of private money by merchants, which has the potential to undermine confidence in private money as *a medium of exchange*. In the contemporary system, the acceptance of private money is facilitated by card companies such as Visa, which emerged in the 1970 as a joint venture of banks clearing ETF amongst each other.[10] Since then, they evolved into large financial conglomerates, the market capitalization of which is higher than that of all American financial institutions except JPMorgan Chase.[11] Their market power and ability to impose excessive fees has been consistently identified as problematic, in particular for small business owners.[12] While antitrust laws have long played an important role in reducing fees charged by those firms,[13] they have proven insufficient in in addressing

10. *See infra* Section II.A.

11. As of the time of writing, the market capitalization of Visa is approximately $500 billion and that of JP Morgan Chase approximately $550 billion. *Largest Companies by Market Cap*, Companies Market Cap, companiesmarketcap.com/[web.archive.org/web/20240806040152/https://companiesmarketcap.com/](last visited Aug 6, 2024). In comparison, Bank of America is worth approximately $285 billion and Well Fargo approximately $175 billion. *Id.* MasterCard is valued at approximately $400 billion and American Express approximately $160 billion. *Id.* In Visa's case the transition began in October 2006 when Visa announced plans to restructure into a single private stock company, Visa Inc., to streamline operations and improve competitiveness. Don Vaughan, *Visa Inc.*, *in* Encyc. Britannica (July 27, 2025), https://www.britannica.com/money/Visa-Inc#ref374328. This restructuring culminated in the 2008 IPO, which was one of the largest in U.S. history at that time. *Id.* Similar to Visa, MasterCard was originally a cooperative association owned by its member financial institutions. Don Vaughan, *Mastercard Inc.*, *in* Encyc. Britannica (July 27, 2025), https://www.britannica.com/money/Mastercard-Inc. In 2002, MasterCard began the process of becoming a shareholder-owned company by transitioning to a private company. *Id.* This process concluded with its 2006 IPO, marking its shift to a publicly traded entity. *Id.*

12. For a discussion of the fees charged to merchant by card network operators, *see infra* Section II.A. According to a survey by the National Federation of Small Business, "Credit Card Payment Processing Costs" rank twenty-second of the seventy-five small business problems with seventeen percent reporting it a critical problem compared to twenty percent reporting it not a problem. Nat'l Fed'n of Indep. Bus., Small Bus. Probs. and Priorities 16 (11th ed. 2024), www.nfib.com/small-business-problems-and-priorities. This issue, along with "Undocumented Workers," is new to the list of problems with the least consensus. *Id.*

13. For an early account of the relevance of antitrust to banking, *see* Adolf A. Jr. Berle, *Banking under the Anti-Trust Laws*, 49 Colum. L. Rev. 589 (1949) (discussing the application of antitrust laws to banking as a relatively new field of study). For a more recent account; *see* Jeremy C. Kress, *Reviving Bank*

them effectively, as demonstrated by the recurring litigation against Visa and Mastercard.[14] As the use of cash declines, and the reluctance on part of merchants to accept private money (for example, refusal to accept card payments) persists, we might see confidence in private money decrease further without a viable alternative made available to the public.[15]

The second gap has to do with the growing popularity of deposits held at non-bank financial institutions, which has the potential to undermine confidence in private money as *a store of value*. In the contemporary financial system, peer-to-peer platforms such as PayPal or Venmo, digital wallets such as Apple Pay or Google Pay, banking-as-service (Baas) providers such as Stripe or Synapse, and stablecoin issuers such as Tether[16]

Antitrust, 72 DUKE L.J. 519 (2022) (contending that scholars and policymakers have neglected bank antitrust law for the past forty years). *Compare also* Saule T. Omarova & Graham S. Steele, *Banking and Antitrust*, 133 YALE L. J. 1162 (2023) (arguing that U.S. bank regulation operates as a comprehensive anti-monopoly regime, designed to prevent excessive concentration of private power over the supply and allocation of money and credit in a democratic economy).

14. In the most recent iteration of this recurring litigation, on September 24, 2024, the U.S. Department of Justice filed a civil antitrust lawsuit against Visa for monopolization and other unlawful conduct in debit network markets in violation of Sections 1 and 2 of the Sherman Act. Complaint, United States v. Visa, Inc., 1:24-cv-7214 (S.D.N.Y. Sept. 24, 2024). For a discussion of selected past cases, *see infra* Section II.A. Another recent example of lawsuit against Visa alleges anticompetitive practices, which harmed ATM operators. *See* National ATM Council, Inc. v. Visa Inc., No. 21-7109, 2023 WL 4743013 (D.C. Cir. July 25, 2023). In a recent Senate Judiciary Committee hearing titled "Breaking the Visa-Mastercard Duopoly: Bringing Competition and Lower Fees to the Credit Card System," held in December 2024, lawmakers examined the lack of competition in the credit card market and its impact on interchange fees. *Breaking the Visa-Mastercard Duopoly: Bringing Competition and Lower Fees to the Credit Card System: Hearing Before the S. Comm. on the Judiciary*, 118th Cong. (2024) (statement of Bill Sheedy, Senior Advisor to the CEO, Visa). Senator Dick Durbin questioned Visa's Senior Advisor to the CEO, Bill Sheedy, highlighting concerns over the transparency and fairness of these fees. *Id.*

15. Pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act, merchants are permitted to offer a discount to cash (or check) customers as an incentive to use those payment methods instead of cards. 15 U.S.C. § 1693o-2(a)(4)(A) (2018).

16. A clear example of the disintermediated banking model is Tether's (USDT). Tether mints USDT tokens, which are pegged to the U.S. dollar, and sells them to institutional clients, exchanges, and other financial intermediaries. *See* TETHER, tether.to/en/ (last visited Feb. 21, 2025). Tether backs USDT with a mix of assets, including cash reserves, commercial paper, Treasury bills, and other investments, as disclosed in its periodic reserve attestations. *Id.* Users acquire USDT through exchanges or direct issuance from Tether and

or Circle have developed business models that allow them to provide depository services that either remove banks from the picture completely or envisage only a subsidiary role for them. At the same time, unlike traditional banks, these new entrants operate under a fragmented regulatory framework, primarily governed by state money transmission laws.[17] This regulatory divergence creates a complex oversight environment, leading to gaps in consumer protection.[18]

This development arguably mirrors the unbundling of lending by the shadow banking sector, which played a central role in the 2008 financial crisis.[19] While the disintermediation of banks in the payments system may not directly cause a financial crisis, it has the potential to undermine depositors' ability to convert deposits intro currency, particularly during crisis periods, due to the lack of FDIC deposit insurance for these accounts. An illustration of this vulnerability is the recent failure of the fintech firm Synapse, which left over 100,000 Americans with $265 million in deposits unable to access their funds in the summer of 2024.[20] As Jerome Powell, Chair of the Federal Reserve Board, stressed in a Senate committee hearing dedicated to the failure, the Federal Reserve (hereinafter "the

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use it for payments, trading, and remittances within crypto ecosystems and decentralized finance (DeFi). *Id.*

17. Ronald Mann, *Regulating Internet Payment Intermediaries*, 82 Tex. L. Rev. 681 (2004) (for an early account of the regulatory framework applicable to peer-to-peer platforms). For a detailed discussion, *see infra* Section II.B.

18. U.S. Dep't. of the Treasury, U.S. Department of the Treasury Report to the White House Competition Council: Assessing the Impact of New Entrant Non-bank Firms on Competition in Consumer Finance Markets 18 (2022). As the report notes:

> By offering unbundled products and services—which can be done without obtaining a banking charter—activities of these nonbank firms can largely be conducted outside the perimeter of federal prudential regulation and oversight. As new entrant non-bank firms have matured in the core consumer finance markets, some have started to offer access to additional products, effectively re-assembling the core components of banking through their digital platforms while mostly remaining outside the bank regulatory perimeter.

Id. at 18.

19. For a discussion of the unbundling of lending in the shadow banking sector, *see e.g.*, Zoltan Pozsar et al., *Shadow Banking*, 19 Econ. Pol'y Rev. 1 (2013).

20. Hugh Son, *How Thousands of Americans Got Caught in Fintech's False Promise and Lost Access to Bank Accounts*, CNBC (July 2, 2024, 10:30 AM), www.cnbc.com/2024/07/02-/synapse-fintech-fdic-false-promise.html.

Fed") supervises banks but not Synapse.[21] The aftermath of the Synapse failure has intensified calls for federal regulation of fintech firms providing payment services.[22]

These two gaps in the regulatory framework for private money realize the prospect of eroding confidence in private money. Lower confidence in private money would weaken the Fed's ability to maintain long run growth of monetary and credit aggregates with the view to achieve its mandate of promoting maximum employment and stable prices.[23] Without sufficient assurances of convertibility and acceptance, depositors may come to doubt the reliability of privately issued balances, reducing their use in everyday transactions and impeding the flow of money and credit within the economy.[24]

To address these gaps, policymakers could strengthen the regulation of private money issuers and payment platforms. While the prospect of the adoption of stronger regulation cannot be ruled out, major issues stand in the way. For example, the prospect of extension of deposit insurance to payment institutions is fraught with complex political and legal issues pertaining to the question of federalism.[25]

I thus make the case for the policy alternative of introducing a digital dollar as CBDC and monetary anchor. A digital dollar would eliminate the credit risk of private money as a digital dollar would represent a liability of the Federal Reserve,

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21. Paige Smith, *A Fintech's Collapse Raises Questions About a Hot Business Model*, BLOOMBERG (July 16, 2024, 8:00 AM) www.bloomberg.com/news/articles/2024-07-16/the-collapse-of-synapse-raise-questions-about-a-hot-fintech-business-model.

22. Wesley Grant, *FDIC to Regulate Fintech and Bank Partnerships After Synapse Failure*, PAYMENTSJOURNAL (Sep. 18, 2024), www.paymentsjournal.com/fdic-to-regulate-fintech-and-bank-partnerships-after-synapse-failure/.

23. The Federal Reserve's mandate is established by the Federal Reserve Act. 12 U.S.C. § 225a. Specifically, the Act directs the Federal Reserve to conduct monetary policy to promote three primary objectives: (1) maximum employment, (2) stable prices, (3) moderate long-term interest rates. *Id.* This directive is commonly referred to as the Federal Reserve's "dual mandate," emphasizing the goals of maximum employment and stable prices. By adjusting interest rates and employing various monetary policy tools, the Federal Reserve endeavors to achieve these objectives, thereby fostering a stable economic environment and preserving the purchasing power of the U.S. dollar.

24. Panetta, *supra* note 3.

25. Dan Awrey, *Money and Federalism* (Eur. Corp. Governance Inst., Law Working Paper No. 775, 2024), papers.ssrn.com/abstract=4848952 (making the law and policy case for federal oversight of money transmitting businesses).

not of a private money issuer. Should the Fed be tasked with the development of the payment infrastructure underpinning the digital dollar, it would have a greater say in shaping the cost of use for that infrastructure. As such, a digital dollar offers an institutional pathway for the promotion of confidence in private money precisely at a time when such confidence might be waning.

A CBDC can take different forms.[26] A basic distinction can be made between a centralized and decentralized CBDC architecture. Crawford, Menand, and Ricks have proposed a centralized digital dollar, which, practically, would mean the extension of reserve accounts to the public, which they call "FedAccounts."[27] Their proposal validates some of the concerns revolving around the impact of a CBDC on the monetary system articulated by other scholars. For example, Zelmanovitz and Salama argue that the proposals to create CBDC should be accounted in practice for what they are in theory: an attempt to crowd out privately created money—and therefore, an invitation for a greater degree of government-directed credit, money creation, and financial repression (or political allocation of money) than what we already have today.[28] Skinner argues that a CBDC would weaken the bundle of rights that individuals have previously enjoyed by holding public money.[29] Her perspective raises interesting questions as to whether CBDC is truly an extension of public money or an entirely new financial instrument, with implications for legal rights.

The monetary anchor perspective helps address these concerns by showing that the role of central banks is instrumental to

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26. The concept of a CBDC has stimulated debates among policymakers and academics for several years now. For a snapshot of the debates among policymakers, *see* Bank of Canada et al., Central Bank Digital Currencies: Foundational Principles and Core Features (2020). As a result, a number of central banks have either launched their CBDC projects or, like the Federal Reserve, engaged in CBDC-related research. For an overview of the Fed's research, *see* Bd. of Governors of the Fed. Rsrv. Sys., *Central Bank Digital Currency (CBDC): Research and Publications*, www.federalreserve.gov/cbdc-research-and-publications.htm (last visited Apr. 18, 2025).

27. John Crawford, Lev Menand & Morgan Ricks, *FedAccounts: Digital Dollars*, 89 Geo. Wash. L. Rev. 113 (2021). For a discussion, *see infra* Section III.B.

28. Leonidas Zelmanovitz & Bruno Meyerhof Salama, *Central Bank Digital Currency and the Agenda of Monetary Devolution*, *in* Com. Banking in Transition: A Cross-Country Analysis 223 (Marco Bodellini et al. eds., 2024).

29. Christina Parajon Skinner, *Central Bank Digital Currency as New Public Money*, 172 U. Pa. L. Rev. 151, 157 (2024).

the promotion of privately created money rather than a threat to it. A logical implication of this perspective is a decentralized digital dollar architecture, much like the one put forward by the ECB for a digital euro. Together with certain other architectural choices, such as limitation on the size of CBDC holdings, a decentralized digital architecture ensures that a digital dollar would act merely as a monetary anchor. Hoffman contends that such proposed limitations on the size of CBDC holdings, intended to mitigate the risk of deposit migration from commercial banks, ultimately undermine the utility of a CBDC as a store of value.[30] However, his analysis fails to adequately consider the CBDC's function as a medium of exchange and the delicate balance that must be maintained between these two roles. While restricting CBDC holdings may limit its capacity to serve as a safe-haven asset, such measures are designed to ensure that the CBDC remains an efficient and widely accepted means of payment without destabilizing the commercial banking sector.

This Article is organized as follows. Part I presents the monetary anchor argument from a historical perspective. Part II reviews antitrust litigations against payment firms and recent enforcement against financial technology firms and outlines the principal reasons why the monetary anchor function of public money in the current financial system requires strengthening. Part III outlines a decentralized dollar architecture inspired by the digital euro, which would allow the Federal Reserve to maintain its pivotal role in the payment system while engaging key stakeholders—particularly banks, whose cooperation is crucial for the success of any digital dollar initiative—in the payment system.

I.
The Monetary Anchor Argument from a Historical Perspective

The monetary anchor argument has long been a central theme in the evolution of monetary systems, shaping the role of central banks in maintaining confidence in private money.[31]

30. Christian Hofmann, *Which Markets Need Central Bank Digital Currency?*, 18 Cap. Mkts. L.J. 281, 284 (2023).

31. Warren L. Coats, *In Search of a Monetary Anchor: Commodity Standards Re-Examined*, *in* Frameworks for Monetary Stability 247, 247 (Carlo Cottarelli & Tomás J.T. Baliño eds, 1994).

The need for a monetary anchor—a reference form of public money that guarantees the value of other circulating monetary instruments—has evolved across different monetary regimes, from the gold standard to modern central banking.[32] During the gold standard era (19th–early 20th century), gold itself functioned as the ultimate monetary anchor.[33] National currencies were pegged to gold, ensuring that they could be redeemed for gold at a fixed rate. This system provided a self-regulating mechanism for monetary stability, as excess issuance of money relative to gold reserves led to outflows of gold, forcing monetary contraction.[34] However, the rigidity of the gold standard made it vulnerable to economic shocks, prompting central banks to take on a more active role in monetary stabilization.[35]

The Great Depression and the collapse of the gold standard in the 1930s further entrenched the role of public money as monetary anchor. When the U.S. government abandoned gold convertibility, central banks had to redefine their role in ensuring monetary stability, shifting their focus toward price stability and economic growth rather than simply maintaining fixed exchange rates.[36] The post-World War II Bretton Woods system

32. *Id.* ("For most of recorded history, man has simplified the process of trading by using one or a small number of commodities with convenient properties as the other half of each trade . . . The shift from a commodity (price) anchor to a money supply (quantity) anchor occurred because of several shortcomings of commodity standards.").

33 *Id.* at 250–51.

> "Gold standards had some very attractive features. The requirement to redeem bank money or government money for a fixed amount of gold limited the creation of money to the amount the public was willing to hold at the prevailing price of gold. This feature had two very powerful implications. First, the supply of money always adjusted as a result of automatic market mechanisms to the amount desired by the public. Second, the institutional arrangements and analytical and administrative skills required to operate such a monetary system were minimal. The monetary authorities had only to passively provide currency (or reserve account balances) when presented with gold, or gold when presented with currency. The supply of gold was endogenously (rather than politically) determined by the cost and other factors of its production in relation to its price. These features resulted in money's value avoiding the extreme fluctuations that have been experienced with fiat money."

Id.

34. *Id.*

35. For a discussion, *see infra* Section I.A.

36. For a discussion, *see infra* Section I.A.

(1944–1971) briefly reinstated a gold-based anchor through a U.S. dollar-gold convertibility mechanism, but its eventual collapse led to the current system of fiat money, where central banks serve as the ultimate arbiters of monetary stability.[37]

In the modern era, central banks uphold the monetary anchor function of public money by making it available in the form of reserves to depository institutions, and in the form of currency to the general public. But the availability of public money is only a factor reinforcing the anchor, which fundamentally rests on confidence in the regulatory framework applicable to private money. This Part provides a historical analysis of the Federal Reserve's role in promoting that confidence through the issuance of public money as well as various regulatory initiatives. The analysis shows that the scope of the role has evolved based on the Fed's perception of how institutional changes in the payment system affected its ability to effectively fulfill the role and how the Fed relied on both public money as monetary anchor and regulatory approaches to promote confidence in private money.

A. *Currency*

Prior to the Civil War, currency was the most important means of payment in the United States.[38] The Coinage Act authorized the government to mint coins as legal tender.[39]

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37. *See infra* Section I.A.

38. Edward J. Stevens, *Composition of the Money Stock Prior to the Civil War*, 3 J. MONEY, CREDIT AND BANKING 84 (1971).

39. The Coinage Act of 1792, signed into law by President George Washington, established the U.S. Mint in Philadelphia, which was tasked with producing gold, silver, and copper coins. SMITH, *supra* note 9. It set specific standards for the weight, fineness, and design of coins, ensuring uniformity and reliability. *Id.* Several subsequent coinage acts and reforms further refined the regulatory framework for coinage. The Coinage Act of 1834 adjusted the gold-to-silver ratio to address economic issues related to bimetallism, where both metals were used as the basis for currency. *See* Glyn Davies, *American Monetary Development Since 1700*, *in* HIST. OF MONEY: FROM ANCIENT TIMES TO THE PRESENT DAY at 483 (2010). The Coinage Act of 1857 ended the practice of foreign coins circulating as legal tender in the U.S., reinforcing the dominance of U.S.-minted coins. *Id.* The Coinage Act of 1873, often referred to as the "Crime of 1873" by its critics, eliminated the standard silver dollar and effectively placed the U.S. on a gold standard. Allen Weinstein, *Was There a "Crime of 1873"?: The Case of the Demonetized Dollar*, 54 J. AM. HIST. 307 (1967). This act led to significant controversy and debate, particularly among those who supported the use of silver in coinage. The Bland-Allison Act of 1878 and the Sherman

By the 1870s, currency also included U.S. notes first issued during the Civil War and banknotes issued by national banks chartered under the National Banking Act.[40] This system, sometimes referred to as the "American Monetary Settlement," delegated a significant level of power to private banks.[41] Congress believed that only though this delegation could the state expand the money supply beyond gold and silver without undermining confidence in the currency.[42]

The system did not work as intended. First, it was prone to instability. The late nineteenth and early twentieth centuries were marked by frequent financial panics and bank runs, which underscored the fragility of the U.S. banking system.[43] Notable crises occurred in 1837, 1857, 1873, 1893, and 1907, leading to widespread bank failures, business bankruptcies, and severe economic downturns.[44] The Panic of 1907 was particularly severe, revealing the inadequacies of the existing financial framework and highlighting the urgent need for a centralized banking authority.[45] The lack of a central institution to manage

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Silver Purchase Act of 1890 were subsequent attempts to reintroduce silver into the monetary system, reflecting ongoing tensions between proponents of gold and silver standards. Jeannette Paddock Nichols, *The Politics and Personalities of Silver Repeal in the United States Senate*, 41 AM. HIST. REV. 26 (1935).

40. *See* National Currency Act, ch. 58, 12 Stat. 665, at 668-70 (1863). Congress repassed the law the next year. *See* National Bank Act, ch. 106, 13 Stat. 99 (1864); John Wilson Million, *The Debate on the National Bank Act of 1863*, 2 J. POL. ECON. 251 (1894) (describing the circumstances of the enactment of the National Bank Act).

41. Lev Menand, *Why Supervise Banks? The Foundations of the American Monetary Settlement*, 74 VAND. L. REV. 951, 958 (2021)..

42. *Id.* at 996.

43. Charles W. Calomiris, *Banking Crises Yesterday and Today*, 17 FIN. HIST. REV. 3, 6 (2010).

44. *Id.* at 5.

45. The Panic of 1907 can be distinguished from earlier panics through the involvement of the New York City trust companies. Jon R. Moen & Ellis W. Tallman, *The Panic of 1907*, FED. RSRV. HIST., www.federal-reservehistory.org/essays/panic-of-1907 (last visited Aug 5, 2024). As they note:

> Trust companies were state-chartered intermediaries that competed with banks for deposits. Trusts were not, however, a central part of the payments system and had a low volume of check clearing compared with banks. As a result, they held a low percentage of cash reserves relative to deposits, around 5 percent, compared with 25 percent for national banks. Because trust-company deposit accounts were demandable in cash, trusts were just as susceptible to runs on deposits as were banks.

Id.

the money supply, provide emergency liquidity, and stabilize the banking system was a critical flaw that demanded rectification.

Second, the system was inelastic. The U.S. economy frequently experienced seasonal currency shortages, especially during the harvest season when the demand for cash surged.[46] The existing currency system consisting of national banknotes and U.S. notes was unable to adapt to these fluctuations,[47] resulting in an inflexible supply of currency, leading to instability of the financial system.[48] The need for a currency that could expand and contract in response to economic conditions became increasingly evident, necessitating a more dynamic and responsive monetary system.[49]

The Federal Reserve Act of 1913 ("the Act") was enacted to address critical issues within the financial system by establishing the Federal Reserve System.[50] The Federal Reserve Act's primary objectives were to stabilize the banking system and to provide an elastic currency capable of adapting to the economy's needs.[51] By acting as a lender of last resort, the Federal Reserve sought

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46. David C. Wheelock, *Seasonal Accommodation and the Financial Crises of the Great Depression: Did the Fed "Furnish an Elastic Currency?"*, 76 FED. RSRV. BANK ST. LOUIS REV. 3, 4 (1992) ("Studies of financial crises during the National Banking era noted that crises generally occurred at times of the year when demands for currency and credit reached seasonal peaks.").

47. Each autumn, particularly during the harvest season, there was a significant increase in the need for currency and credit as farmers required funds to harvest and ship their crops. Donald P. Morgan & James Narron, *The Final Crisis Chronicle: The Panic of 1907 and the Birth of the Fed*, FED. RSRV. BANK OF N.Y. LIBERTY ST. ECON. (Nov. 18, 2016), libertystreeteconomics.newyorkfed.org/2016/11/the-final-crisis-chronicle-the-panic-of-1907-and-the-birth-of-the-fed.html (last visited Feb. 11, 2025). In the absence of a central bank to accommodate this seasonal surge, the money supply remained inelastic, leading to tight monetary conditions and elevated interest rates. *Id.*

48. As Morgan and Narron note, "[a]bsent a central bank to accommodate this seasonal surge in demand, interest rates would spike instead. This "perverse" elasticity of the money supply had sometimes triggered banking panics and was central in the "great debate" over the need for a central bank." *Id.* (internal citations omitted).

49. *Id.* at 5. ("Reformers proposed a system in which the supplies of currency and credit fluctuated with the needs of trade. The theoretical justification for such a system became known as the Real Bills Doctrine, and that doctrine was implemented with passage of the Federal Reserve Act.")

50. *See generally* Federal Reserve Act, ch. 6, 38 Stat. 251 (1913).

51. *Id.* The Act's long title ("An Act to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes.") outlines its primary objectives. *Id.*

to prevent bank runs and financial panics, thereby enhancing the stability and security of the banking sector.[52]

The introduction of Federal Reserve notes, designed to replace the diverse assortment of state and national banknotes previously in circulation, was instrumental in this respect. Unlike their predecessors, Federal Reserve notes were backed by the centralized authority of the Federal Reserve Banks, which could issue currency in response to the economy's demands.[53] This new form of public money gradually supplanted other forms of private money, becoming the standard medium of exchange in the United States.[54]

The notes' function extended beyond being a medium of exchange; they also functioned as a store of value. To fulfill this role effectively, money must be in a form that is widely recognized as valuable.[55] For this reason, historically, money often took the form of precious metals such as gold and silver.[56] Federal Reserve notes were piece of paper prompting the question of what made them a good store of value.

First, their designation as legal tender was a significant factor.[57] This designation means that they must be accepted for

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52. Nadav Orian Peer, *Negotiating the Lender of Last Resort: The 1913 Federal Reserve Act as a Debate over Credit Distribution*, 15 N.Y.U. J.L. & Bus. 367, 369 (2019) (demonstrating the distributive stakes of lender-of-last-resort powers through the legislative debate around the 1913 Federal Reserve Act).

53. Edward C. Simmons, *The Elasticity of The Federal Reserve Note*, 26 Am. Econ. Rev. 683, 683–85 (1936) ("The original Federal Reserve act provided for a note issue which was to be secured 100 per cent with commercial paper and in addition by a 40 per cent reserve in gold. Member banks were to obtain notes by rediscounting customers' paper with their respective federal reserve banks, which would in turn obtain notes from the federal reserve agents by transfer to them of the rediscounted paper Redemption in gold and additional security was assured by the establishment of a specific gold reserve for notes, to be held by the federal reserve banks directly. In order to prevent the volume of notes from becoming excessive, elaborate provisions respecting retirement were included in the Act.").

54. *See generally* Karl Brunner & Allan H. Meltzer, *The Uses of Money: Money in the Theory of an Exchange Economy*, 61 Am. Econ. Rev. 784 (1971) (for a discussion of the role of money as medium of exchange).

55. Manuel A. Muñoz & Oscar Soons, *Public Money as a Store of Value, Heterogeneous Beliefs, and Banks: Implications of CBDC*, ECB Working Paper Series, No. 146 at 1 (Mar. 2023).

56. *See generally* Christine Desan, Making Money: Coin, Currency, and the Coming of Capitalism (1st ed. 2015).

57. Legally, money is defined as U.S. coins and currency, including Federal Reserve notes, which are accepted as legal tender for all debts, public charges, taxes, and dues. 31 U.S.C. § 5103.

the payment of debts, both public and private.[58] This compulsory acceptance creates a baseline demand for the currency, ensuring that it will always have some level of value in transactions.[59] Second, the Federal Reserve's role in managing the money supply and controlling inflation is crucial. By adjusting interest rates and employing various monetary policy tools, the Federal Reserve endeavors to maintain economic stability and the purchasing power of the currency.[60] This active management plays a critical role in preserving the value of Federal Reserve notes, thereby ensuring their efficacy as a store of value.[61]

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58. The Federal Reserve Act authorizes the issuance of Federal Reserve notes. 12 U.S.C. § 411. The Act states that Federal Reserve notes "shall be obligations of the United States and shall be receivable by all national and member banks and Federal reserve banks and for all taxes, customs, and other public dues. They shall be redeemed in lawful money on demand at the Treasury Department of the United States, in the city of Washington, District of Columbia, or at any Federal Reserve bank." *Id.* The Act did not, however, define the term "lawful money." *Id.* In 1933, Congress amended the law to ensure that all U.S. coins and currency, including Federal Reserve notes, are recognized as "legal tender" for all transactions. *Id.* Since then, both federal and state courts have consistently ruled that Federal Reserve notes are also considered "lawful money." Milam v. U.S., 524 F.2d 629 (9th Cir. 1974). In *Milam*, the United States Court of Appeals for the Ninth Circuit reviewed a decision denying relief to an individual who sought to redeem a $50 Federal Reserve Bank Note for "lawful money." *Id.* The United States offered Milam fifty dollars in Federal Reserve notes, which Milam refused, insisting that "lawful money" must be in the form of gold or silver. *Id.* The Ninth Circuit, referring to the U.S. Supreme Court's ruling in *Juilliard v. Greenman*, 110 U.S. 421 (1884), which settled this issue almost a century earlier, dismissed Milam's claim as unfounded and upheld the judgment. *What is Lawful Money? How Is it Different from Legal Tender?*, FED. RSRV., www.federalreserve.gov/faqs/money_15197.htm (last visited July 16, 2024).

59. If a currency is universally accepted, individuals are more likely to demand and use it, reinforcing its purchasing power through network effects. Jess Cheng & Joseph Torregrossa, *A Lawyer's Perspective on U.S. Payment System Evolution and Money in the Digital Age*, FEDS Notes, FED. RSRV., www.federalreserve.gov/econres/notes/feds-notes/a-lawyers-perspective-on-us-payment-system-evolution-and-money-in-the-digital-age-20220204.html (last visited Feb. 11, 2025). As they note:

> "A sound legal framework is an important foundation for network effects within the payment system. It can bring certainty and clarity to a payment arrangement, resulting in greater consistency and predictability to the parties' payments activity; this, in turn, removes inefficiencies and provides an incentive for more parties to join the system."

Id.

60. *See supra*, note 23 and accompanying text.

61. A 2022 Axios/Ipsos poll among American adults finds that many do not understand the core elements of the Federal Reserve: its dual mandate

However, this role of the Federal Reserve has not always existed in its current form. During the first gold standard era, which lasted until 1933 in the United States, the Federal Reserve's ability to manage money supply and inflation was severely constrained, as the money supply was tied to gold reserves.[62] Under the gold standard, the U.S. dollar was backed by a fixed quantity of gold, meaning that money supply expansion was limited by available gold reserves.[63] This system ensured, or at least was designed to ensure, long-term price stability,[64] but it also limited the Federal Reserve's ability to respond flexibly to economic downturns or financial crises, ultimately undermining the dollar's role as monetary anchor.

The inflexibility of the gold standard contributed to severe economic downturns, most notably the Great Depression, as the Fed was unable to inject liquidity into the economy to counteract banking panics.[65] In response, President Franklin D. Roosevelt suspended domestic gold convertibility in 1933, allowing the Fed to begin managing the money supply based

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and its independence from the federal government. *Axios/Ipsos Poll: Federal Reserve*, Ipsos (2022), www.ipsos.com/en-us/news-polls/Axios-Federal-Reserve-2022 (last visited Aug. 5, 2024). However, Americans do identify the Fed as a force to curb inflation though they may be confused about the exact mechanisms with which it can do so. *Id.* Few Americans understand the Federal Reserve's role outside curbing inflation. *Id.*

62. Arthur I. Bloomfield, *Gold Standard*, *in* Encyc. of Econ. 452 (Douglas Greenwald ed. 1981) (cited in Richard N. Cooper, *The Gold Standard: Historical Facts and Future Prospects*, 13 Brookings Papers on Econ. Activity, no. 1, 1982, at 4) ("The national monetary unit was defined in terms of a given quantity of gold; the central bank or treasury stood ready to buy and sell gold at the resulting fixed price in terms of the national currency; gold was freely coined and gold coins formed a significant part of the circulating medium; and gold could be freely exported and imported.").

63. The Federal Reserve Act required the Federal Reserve to hold gold equal to forty percent of the value of the currency it issued. Raymond P. H. Fishe, *The Federal Reserve Amendments of 1917: The Beginning of a Seasonal Note Issue Policy*, 23 J. Money, Credit & Banking 308, 309 (1991).

64. Economists disagree about the impact of the gold standard on price stability. *Cf.* Coats, *supra* note 31 at 250 ("Systems based on the convertibility of currency notes for gold or other commodities proved very successful at maintaining relatively stable prices for very long periods of time."); Cooper, *supra* note 62 at 7 ("Price stability was not attained, either in the short run or in the long run, either during the period of the gold standard proper or over a longer period during which gold held dominant influence. In fact, in the United States short-run variations in wholesale prices were higher during the prewar gold standard period than from 1949 to 1979.").

65 *See* Barry Eichengreen & Peter Temin, *The Gold Standard and the Great Depression*, 9 Contemp. Eur. Hist. 183 (2000).

on economic conditions rather than gold reserves.[66] Although the U.S. continued to use gold as an international benchmark under the Bretton Woods system (1944–1971)—where the dollar remained pegged to gold at $35 per ounce—this system eventually collapsed when rising U.S. deficits and inflation made it impossible to maintain gold convertibility.[67] In 1971, President Richard Nixon officially ended the gold standard, ushering in the modern era of fiat money and central bank-controlled monetary policy.[68]

The shift from gold to a central bank managed monetary system cemented the transformation of the monetary anchor from a fixed commodity to public money. The Federal Reserve upholds the monetary anchor function of public money by making it available in the form of currency to the general public.[69] The availability of public money helps build confidence in private money, in particular bank deposits, provided that they can be easily converted into public money.[70] Private money should, in other words, be fungible with public money for the public to be prepared to use it as a substitute for public money. As discussed in further detail in the following sections, the institutional evolution of the payment system made the use of private money much easier but in some respects reduced its fungibility with public money undermining its monetary anchor function.

B. *Checks*

Checks are a currency substitute that can be usefully understood as the customer's instructions to their banks to pay the merchant (or another party designated by it) from the customer's deposit account.[71] A check is therefore an instrument involving

66. Kenneth W. Dam, *From the Gold Clause Cases to the Gold Commission: A Half Century of American Monetary Law*, 50 U. CHI. L. REV. 504, 509–10 (1983).

67. JOANNE GOWA, CLOSING THE GOLD WINDOW: DOMESTIC POLITICS AND THE END OF BRETTON WOODS 26 (2019).

68. *Id.* at 150.

69. As well as in the form of reserves to depository institutions. *Cf.* Digital Euro Regulation *supra* note 1.

70. Panetta, *supra* note 3.

71. Towards the mid-nineteenth century, the inconvenience (and, sometimes, unavailability) of currency prompted customers of both national and state-chartered banks to settle a large share of their payment obligations with checks. After the 1850s, checks became more important than currency. *See generally* WALTER EARL SPAHR, THE CLEARING AND COLLECTION OF CHECKS (1926).

at least three parties: the drawer (customer), the drawee (bank), and the payee (merchant or another party designated by them). If the drawer or payee banked with other institutions, there would be a need to involve those institutions as well.

Historically, the process of converting checks into currency varied significantly depending on the geographical proximity of the banks involved.[72] When both the paying and collecting banks were located in the same town, the clearing process was relatively swift as the checks could easily be presented on premise.[73] However, if the banks were at different locations, the procedure became more protracted. The collecting bank had two options: it could either dispatch a representative to physically retrieve the funds from the paying bank or send the check through the mail.[74]

Under common law, banks were obligated to honor the full or par value of checks presented to them in person.[75] However, if the check was mailed, the paying bank was permitted to impose a fee on the collecting bank, which would be then passed on to its customer.[76] The rationale for this practice was that mailing the check incurred additional costs, particularly related to the subsequent dispatch of currency to the collecting bank.[77] This distinction in the handling of checks based on the method of presentation reflected the logistical challenges and costs associated with interbank transactions, as well as the legal framework designed to address these issues.

Collecting banks aimed to minimize these fees by using correspondent banks, which competed for check collection business by offering favorable terms to collecting banks, such as expedited collection times and minimal exchange charges.[78] To enhance their competitive edge, these correspondent banks devised strategies to mitigate the exchange charges imposed by paying banks. One of those strategies was to establish networks of banks that functioned as their agents.[79] These agents were tasked with presenting checks directly over the counter

72. R. Alton Gilbert, *Did the Fed's Founding Improve the Efficiency of the U.S. Payments System?*, *in* 80 Fed. Rsrv. Bank St. Louis Rev. 121, 122 (June 1998).
73. *Id.* at 122–23
74. *Id.* at 123.
75. *Id.*
76. *Id.*
77. *Id.*
78. *Id.*
79. *Id.*

to paying banks that were known for imposing relatively high exchange charges.[80] Through this networked approach, correspondent banks were able to offer more attractive terms.[81] While this arrangement had some benefits for the collecting banks, it also meant that sometimes checks would be routed through numerous banks and covered significantly greater distances than the actual distance between the depositing and paying banks,[82] contributing to delays in payments.

In larger metropolitan areas, banks sought to streamline the check clearing process and to reduce associated costs by forming clearinghouses.[83] Clearinghouses facilitated the direct exchange of checks among member banks, significantly expediting the settlement process. Unlike the correspondent banking networks, clearinghouses adhered to the principle of clearing checks at par value, in accordance with the common law principle that banks should honor checks presented at their places of business at their face value.[84] This practice effectively eliminated exchange charges for local transactions among member banks, fostering a more efficient and cost-effective clearing system within the local banking community.

However, the system of clearinghouses was not without its drawbacks. Some clearinghouses discriminated against out-of-town banks, imposing higher fees on checks drawn on non-member institutions. As documented by Spahr in his historical analysis of the checking system, member banks of the New York Clearinghouse implemented a policy of charging a minimum fee of ten cents per check for out-of-town transactions during the early 1920s.[85] This policy was particularly punitive for relatively large checks drawn on banks outside the clearinghouse's immediate jurisdiction, as the fees escalated with the value of the check. Such discriminatory practices underscored the inherent tensions within the check clearing system, where the imposition of these additional fees not only strained relationships between local and out-of-town banks, but also hindered the seamless flow of financial transactions across different regions.[86]

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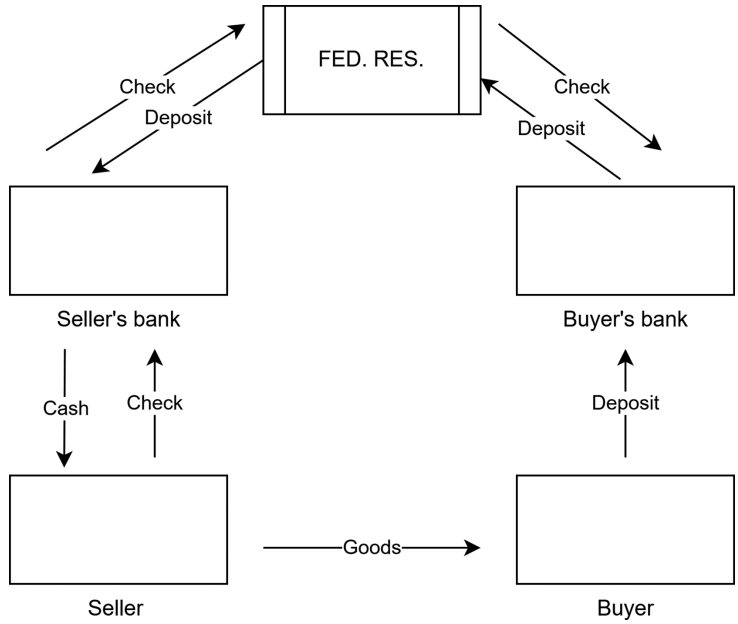
80. *Id.*
81. *Id.* at 123–24.
82. *Id.* at 124.
83. *Id.* at 125.
84. *Id.*
85. SPAHR, *supra* note 71 at 126.
86. Gilbert, *supra* note 72 at 125.

In this context, Congress enacted provisions under Section 13 of the Federal Reserve Act, authorizing the Federal Reserve to accept checks from any member bank drawn on another member bank.[87] This legislative move was designed to streamline the check clearing process, and thus to significantly reduce both the time and cost associated with clearing checks. By facilitating the centralized clearing of checks, the Federal Reserve's involvement effectively eliminated the need for direct bilateral exchanges between banks, which were both time-consuming and costly. Figure 1 represents a check transaction cleared through the Federal Reserve.



Congress also sought to ensure that the cost of check clearing was minimized. To this end, it mandated that all checks collected by the Federal Reserve be cleared at par, i.e., without any deductions. [88] Section 16 of the Federal Reserve Act explicitly states that Reserve Banks "shall receive on deposit at par from depository institutions . . . checks . . . upon funds to the credit of said depositor."[89]

87. Federal Reserve Act, ch. 6, 38 Stat. 251 (1913).
88. Federal Reserve Act, ch. 6, § 13, 38 Stat. 251, 263–65 (1913).
89. Federal Reserve Act, ch. 6, § 16, 38 Stat. 251, 265–68 (1913).

The introduction of the par collection rule faced significant resistance from the banking industry, particularly from banks that were not members of the Federal Reserve System. These banks had traditionally profited from exchange charges and other fees associated with the clearing of checks below par. The enforcement of par collection threatened to eliminate this revenue stream, prompting a series of legal challenges.[90] The central issue in these cases was whether the Federal Reserve had the authority to mandate par collection and apply this rule to non-member banks, which were not directly subject to the Federal Reserve's regulatory oversight.

Battles over this issue culminated in the landmark 1923 Supreme Court case *American Bank & Trust Co. ET AL. v. Federal Reserve Bank of Atlanta*.[91] In its decision, the Supreme Court upheld the Federal Reserve's authority to enforce the par collection rule, even with respect to non-member banks.[92] The Court emphasized that the Federal Reserve's powers were broad enough to encompass measures necessary for the effective functioning of the national banking system, including the elimination of discriminatory practices that could hinder the free flow of commerce.[93]

C. *Cards*

Cards have a history dating back to the nineteenth century when oil companies and hotel chains began issuing charge cards to customers to pay for services.[94] In 1958, Bank

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90. For an overview of these challenges, *see* Charles S. Tippetts, *The Par Remittance Controversy*, 14 AM. ECON. REV. 629 (1924); *see also* Colston E. Warne, *Enforced Par Remittance Under the Federal Reserve System*, 36 Q. J. ECON. 274 (1922).

91. Am. Bank & Tr. Co. v. Fed. Rsrv. Bank, 262 U.S. 643 (1923).

92. *Id.* at 648 ("Federal Reserve Banks are thus authorized by Congress to collect for other Reserve Banks, for members, and for affiliated nonmembers, checks on any bank within their respective districts if the check is payable on presentation and can in fact be collected consistently with the legal rights of the drawee without paying an exchange charge.").

93. As the court noted, "[C]ountry banks are not entitled to protection against legitimate competition. Their loss here shown is of the kind to which business concerns are commonly subjected when improved facilities are introduced by others, or a more efficient competitor enters the field. It is *damnum absque injuria*." *Id.*

94. The Diners Club card, often considered the first modern credit card, was introduced in 1949 by Frank McNamara. The Diners Club card was initially used by 27 restaurants in New York City and quickly grew in popularity.

of America (BofA) launched what is often considered the first credit card, the BankAmericard, in California. BofA simply mailed the BankAmericard to 60,000 residents of Fresno.[95] There was no application process; the card simply arrived in recipients' mailboxes, fully activated and ready for immediate use at participating merchants.[96] For merchants, the cost of participation represented six percent of each transaction, and consumers were provided with an instant line of credit ranging between $300 and $500.[97]

BofA's experiment was initially a failure with high delinquencies.[98] But against all odds, BofA persevered with the BankAmericard in large part due to the efforts of Dee Hock, who set out to streamline the process of clearing the sales drafts across multiple banks.[99] After joining BofA, Hock became the leader of an ad hoc committee of BankAmericard licensees that sought to improve the system.[100] The committee conceived of a network with clear rules governing the system, and with all participants having an equal vote.[101] Hock then persuaded BankAmericard participants to join the new network.[102] In 1970, the new organization was formed. Today it is known as Visa.

Central to Visa's success was its network, VisaNet, which, much like any electronic funds transfer (EFT), operates within a four-party system, comprising of the cardholder, the merchant, the card issuer (cardholder's bank), and the acquirer (the merchant's bank).[103] The operation of VisaNet is governed by Visa Core Rules and Visa Product and Service Rules, which delineate the operational procedures and obligations of

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Lewis Mandell, The Credit Card Industry: A History (1990). For an account of the legal treatment of credit cards under payments law, *see* William B. Davenport, *Bank Credit Cards and the Uniform Commercial Code*, 85 Banking L.J. 941, 942 (1968).

95. Joseph Nocera, A Piece of the Action: How the Middle Class Joined the Money Class 15 (2013).

96. *Id.*

97. *Id.* at 25.

98. *Id.* at 30.

99. Evan Sparks, *9 Young Bankers Who Changed America*, 109 Am. Bankers Ass'n. ABA Banking J. 22, 25 (2017).

100. *Id.*

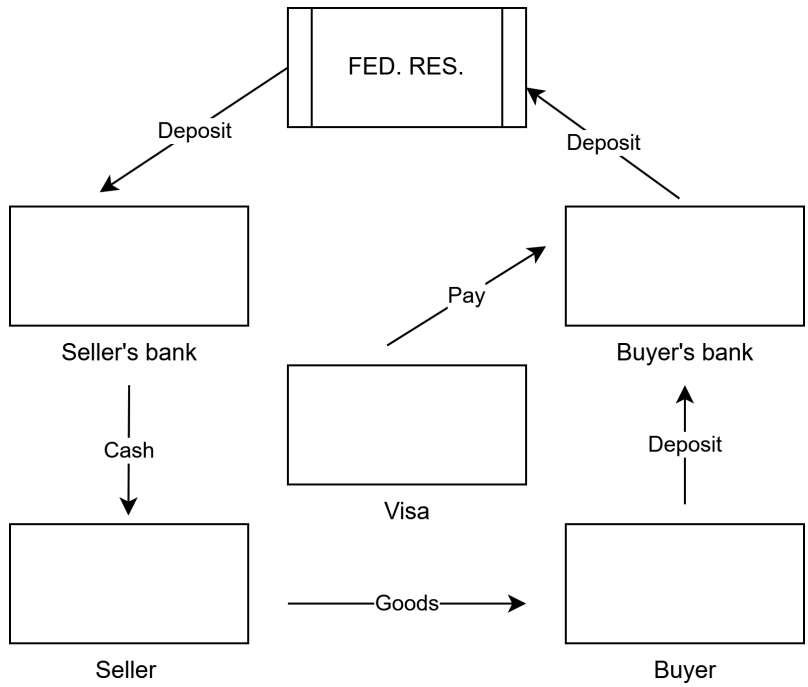
101. *Id.*

102. *Id.*

103. Visa, VisaNet, corporate.visa.com/content/dam/VCOM/download/corpo rate/media/visanet-technology/visa-net-booklet.pdf (last visited Aug.12, 2024).

Visa's network participants.[104] These rules address issues such as issuance conditions,[105] acceptance requirements,[106] transactions processing,[107] among others following the transaction.[108]

Figure 2 represents the processes involved in a typical credit card payment. Initially, transactions between issuing (buyer's) and acquiring (seller's) banks are settled through private card networks using commercial bank money. Subsequently, net obligations between banks are finalized in central bank money through central bank settlement services, such as Fedwire.



104. Visa, Visa Core Rules and Visa Product and Service Rules (Oct. 19, 2024), usa.visa.com/dam/VCOM/download/about-visa/visa-rules-public.pdf (last visited Aug. 13, 2024) [hereinafter Visa Rules].

105. *Id.* Section 1.4.1.

106. *Id.* Section 1.5.1.

107. *Id.* Section 1.7.

108. The operation of the NSS is governed by the Federal Reserve Bank Operating Circular 12. *Federal Reserve Bank Operating Circular 12 Multilateral Settlement*, Fed. Rsrv. Bank (Mar. 8, 2021) www.frbservices.org/binaries/content/assets/crsocms/resources/rules-regulations/030821-operating-circular-12.pdf (last visited May 1, 2025).

A critical component of the Visa Core Rules and Visa Product and Service Rules is the determination of interchange fees—fees charged by the card-issuing bank to the merchant's bank for processing transactions.[109] The remaining discussion in this Section will focus on these fees as they significantly impact the costs of card transactions and shape the distribution of revenues among the network's participants.[110]

The primary rationale for setting interchange fees lies in the need to avoid bilateral negotiations of transaction fees between the acquirer and the card-issuing bank for each transaction.[111] The issuing bank bears various costs, including those associated with attracting new customers, card issuance, customer service, fraud prevention, and dispute resolution. How, if at all, is the acquirer going to compensate the issuing bank for these costs? Given that contemporary card networks encompass millions of participants, it would be impractical to negotiate these fees on a transaction-by-transaction basis. As Baxter argued in his seminal paper on interchange fees, the establishment of such fees by network operators ensures that all parties—merchants, acquirers, issuers, and cardholders—can participate in the payment system with clarity and confidence.[112]

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109. Visa Rules, *supra* note 104 at Section 1.8.

110. To understand the mechanics of interchange fees, it might be helpful to illustrate their application with an example. Whenever a card is swiped, the merchant incurs a cost. The acquirer (merchant's bank) processes the payment transaction and credits the merchant's account with an amount slightly *less* than the transaction total. This discount covers the acquirer's expenses, including its own costs, profit margin, the fee paid to the network (such as Visa or MasterCard), and the interchange fee, which is remitted to the card-issuing bank.

111. This argument was first put forward by Baxter in his seminal paper. William F. Baxter, *Bank Interchange of Transactional Paper: Legal and Economic Perspectives*, 26 J.L. & Econ. 541, 586 (1983) ("The courts should recognize that collective institutional determination of the interchange fee is both appropriate and desirable. To an unsophisticated observer this collective process of equilibration resembles horizontal price fixing, but, for the reasons set forth in this paper, it should not be so treated. Because of the potential for free-rider behavior, individual establishment of interchange fees will almost certainly produce chaotic results,such as higher fees and instability within card systems."). For a review of literature on interchange fees, *see* Marianne Verdier, *Interchange Fees in Payment Card Systems: A Survey of the Literature*, 25 J. Econ. Econ. Survs. 273 (2011). *See also* Julian Morris et al., The Effects of Price Controls on Payment-Card Interchange Fees: A Review and Update (Mar. 4, 2022), papers.ssrn.com/abstract=4063914 (last visited July 23, 2024).

112 112. Baxter, *supra* note 111 at 572.

However, this argument has not been universally accepted. One of the foremost policy concerns surrounding interchange fees is the lack of transparency in their determination and structure.[113] The opacity associated with these fees impedes the ability of merchants and consumers to fully understand the true cost of card transactions.[114] Another significant policy issue pertains to market power and competition within the card payment industry.[115] The setting of interchange fees often reflects the market power held by large card networks and issuing banks rather than the actual costs associated with providing payment services.[116] This market power can then lead to the imposition of high interchange fees, which in turn can stifle competition, particularly by disadvantaging smaller competitors.[117] There is also the risk that these fees may be indirectly passed on to consumers through higher prices for goods and services.[118] This creates a scenario where consumers who pay with cash or alternative payment methods may unknowingly subsidize the rewards and benefits received by credit card users, leading to an inequitable distribution of costs.[119]

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113. *See* discussion *infra* Section II.A

114. In 2022, U.S. merchants paid a record $160.70 billion in processing fees to accept $10.589 trillion in payments from credit, debit and prepaid cards, according to the Nilson Report, an influential publication in the payments industry. The Nilson Report, *US Merchant Processing Fees Top $160 Billion*, GLOBENEWSWIRE (Mar. 21, 2023), www.globenewswire.com/en/news-release/2023/03/21/2631573/0/en/US-Merchant-Processing-Fees-Top-160-Billion.html (last visited July 2, 2024). It is estimated that processing fees represent one to three percent of the price of the purchased product or service. Kimberlee Leonard, *Credit Card Processing Fees: The Ultimate Guide*, FORBES (Mar. 7 , 2024), www.forbes.com/advisor/business/credit-card-processing-fees/ (last visited July 2, 2024).

115. *See* discussion *infra* Section II.A.

116. There exists an extensive theoretical literature on interchange fees. It suggests that the differences between the profit maximizing interchange fee and the welfare maximizing interchange fee depend on the nature of competition between banks, and on the nature of strategic interactions between merchants. *See* Verdier, *supra* note 111. *See also* Jean-Charles Rochet & Jean Tirole, *An Economic Analysis of the Determination of Interchange Fees in Payment Card Systems*, 2 REV. NETWORK ECON. 69, 72 (Jan. 2003).

117. *See* discussion *infra* Section II.A.

118. Benjamin Klein et al., *Competition in Two-Sided Markets: The Antitrust Economics of Payment Card Interchange Fees*, 73 ANTITRUST L.J. 571, 609 (2006).

119. This practice essentially imposes a "tax" on cash customers, as they end up subsidizing the benefits enjoyed by credit card users. The revenue from interchange fees flows back to the card-issuing banks, which, under competitive pressure, may return a portion of these fees to credit card customers in the form of rewards, rebates, or lower fees. Consequently, interchange fees

Despite these concerns, the United States only started to regulate interchange fees in 2010 under Section 1075 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, commonly known as the "Durbin Amendment."[120] The Durbin Amendment imposed caps on interchange fees for debit card transactions involving cards issued by banks with assets exceeding $10 billion[121] and mandated the Federal Reserve Board to set maximum interchange fees for covered banks, stipulating that these fees must be "reasonable and proportional to the cost incurred by the issuer with respect to the transaction."[122] Further, on July 20, 2011, the Federal Reserve Board issued Regulation II, which established the fee cap for covered debit transactions at $0.21 plus 0.05% of the transaction value.[123] In addition, the Board's rulemaking allowed an extra $0.01 per transaction to be charged to cover the costs associated with investments in fraud prevention and the identification of suspicious activities.[124]

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enable credit card users to benefit at the expense of cash customers, creating a cross-subsidization dynamic. *Id.* at 615. For a more recent variant of this argument, *see* Sumit Agarwal et al., *Who Pays for Your Rewards? Redistribution in the Credit Card Market*, (IMF Working Paper 23/54, 2023). Agarwal et al. find that regardless of income, sophisticated individuals profit from reward credit cards at the expense of naïve consumers. *Id.* To probe the underlying mechanisms, they exploit bank-initiated account limit increases at the card level and show that reward cards induce more spending, leaving naïve consumers with higher unpaid balances. *Id.* Naive consumers also follow a sub-optimal balance-matching heuristic when repaying their credit cards, incurring higher costs. *Id.* Banks incentivize the use of reward cards by offering lower interest rates than on comparable cards without rewards. *Id.* They estimate an aggregate annual redistribution of $15 billion from less to more educated, poorer to richer, and high to low minority areas, widening existing disparities. *Id.*

120. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 1075, 124 Stat. 1376, 2068-2074 (2010) (codified at 15 U.S.C. § 1693o-2).

121. *Id.* § 1693o-2(a)(6).

122. *Id.* § 1693o-2(a)(2).

123. 12 C.F.R. §235.3(b) (2025).

124. Furthermore, the Dodd-Frank Act required debit card issuers to enable at least two networks for processing transactions, thereby providing merchants with a choice of routing options for electronic debit transactions. 15 U.S.C. § 1693o-2. Although the Federal Reserve was granted rulemaking authority to implement this requirement, Reg. II initially lacked specificity regarding its enforcement. To address this ambiguity, the Federal Reserve issued a clarifying rule in 2021, which was supported by the Federal Trade Commission. Press Release, Federal Trade Commission, FTC Urges Federal Reserve Board to Require Debit Card Gatekeepers to Compete Fairly, (Aug. 12, 2021), www.ftc.gov/news-events/news/press-releases/2021/08/ftc-urges-federal-reserve-board-require-debit-card-gatekeepers-compete-fairly (last visited Aug. 2, 2024). The Department of Justice has also supported it.

D. *The Monetary Anchor Revisited*

The parallel between the fees levied by banks for check clearing and those imposed for card payment processing is significant. In both instances, the fees introduce barriers to the free and frictionless use of private money in transactions, undermining confidence in it as a medium of exchange.

In the early twenty-first century, commentators recognized this parallel and urged the Federal Reserve to intervene, arguing that its authority over check clearing under Section 16 of the Federal Reserve Act should extend to the regulation of interchange fees, given the fundamental similarity between checks and point-of-sale debit transactions.[125] Some went as far as claiming that Visa and MasterCard had undermined the at-par debit system, which existed because the Federal Reserve recognized the value of anchoring private money in public money (reserves) through the check clearing facilities of the Federal Reserve Banks.[126] Why did the Federal Reserve not heed their advice? To answer this question, it may be worthwhile to revisit the original rationale for promoting par clearing, as it may provide valuable insights into its applicability to modern payment systems.

The motives for the inclusion of the par clearing authority in the Federal Reserve Act remain contested by economic historians. Notably, in 1996, Ed Stevens proposed the term "institutional anchor" to describe the Fed's infrastructural function under Section 13.[127] Having reviewed the dominant strands of monetary reform proposals before the Act was drafted as well as clearing and collection provisions in successive versions of

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Press Release, U.S. Department of Justice, Justice Department Supports the Federal Reserve Board's Proposed Rule on Debit Card Interchange Fees and Routing to Promote Competition (Aug. 11, 2021), www.justice.gov/opa/pr/justice-department-supports-federal-reserve-board-s-proposed-rule-debit-card-interchange-fees (last visited Aug. 2, 2024). This rule aimed to ensure compliance with the network exclusivity and routing provisions, reinforcing the legislative intent to foster competition and reduce costs for merchants in the electronic payment system.

125. Lloyd Constantine et al., *Repairing the Failed Debit Card Market: Lessons from an Historically Interventionist Federal Reserve and the Recent Visa Check/MasterMoney Antitrust Litigation*, 2 N.Y.U. J.L. & Bus. 147 (2005).

126. *Id.*

127. Edward J. Stevens, *The Founders' Intentions: Sources of the Payment Services Franchise of the Federal Reserve Banks* at 25, (Fed. Rsrv. Bank of Cleveland, Fin. Servs. Rsch. Grp. Working Paper No. 03-96, 1996).

the Federal Reserve Act as it made its way through Congress in 1913, he concluded that:

> The reserve banks' check collection service was created to serve as 'glue,' attaching the new central bank to the commercial and financial markets through member banks. Successful creation and operation of the Federal Reserve System would be promoted if the reserve banks could do more for member banks than lend occasionally and administer the reserve requirement tax . . . Nationwide check collection service was added to the bill in the latter days of the legislative process to show potential member banks that deposits maintained at the new regional reserve banks could play an integral part in the banking business, replacing correspondent bank services.[128]

Stevens argued that the Federal Reserve's role in check clearing was not meant to directly address market failures or externalities for public benefit but rather to prevent the institution's irrelevance.[129] The public benefit provided by the Reserve Banks' check collection and other services was seen as a crucial support for the central bank's monetary policy and lender-of-last-resort functions, hence the term "institutional anchor."[130]

R. Alton Gilbert, another economic historian, offers a different interpretation by referencing a 1917 amendment to the Federal Reserve Act,[131] which allowed nonmember banks to become clearing members of the Federal Reserve.[132] Additionally, both member and nonmember banks were permitted to charge a limited fee, implicating the Federal Reserve in the payment process.[133] However, during the amendment's passage, President Wilson intervened, asserting that Federal Reserve banks should not absorb charges, leading to the inclusion of a provision stating that "no such charges shall be made against

128. *Id.* at 4.
129. *Id.* at 25.
130. *Id.*
131. Federal Reserve Act, ch. 32, 40 Stat. 232 (1917).
132. *See* Gilbert, *supra* note 72.
133. 12 U.S.C. § 342 ("solely for the purposes of exchange or of collection, may receive from any nonmember bank or trust company or other depository institution deposits of current funds in lawful money, national-bank notes, Federal reserve notes, checks and drafts payable upon presentation or other items, or maturing notes and bills.").

the Federal Reserve banks."[134] Gilbert contends that this amendment demonstrates Congress' view of the Fed's check-collection system as more than a mere tool to make membership attractive to banks. If Congress had intended the system—Gilbert asks—solely to benefit member banks, why would it have extended access to nonmember banks in 1917?[135]

Furthermore, Gilbert argues that exchange charges against the Reserve Banks would not have undermined the system's purpose, as the industry norm involved paying such charges.[136] The Fed's collection system could have continued to function as the "glue" connecting member banks to the Fed.[137] However, President Wilson's intervention suggests that he perceived the Fed's par collection system as a valuable national service.[138] Congress' modification of the bill to prohibit exchange charges against the Reserve Banks reflects an endorsement of this view, indicating a broader intention behind the Fed's par clearing authority.[139]

Both Stevens' and Gilbert's perspectives address the Federal Reserve's role in check clearing and the rationale behind the inclusion of the check clearing authority in the Federal Reserve Act, but they differ in their interpretations of the motivations and implications of this authority. Stevens' perspective suggests that the Fed should only care about par clearing to the extent that below par clearing reflects the erosion of public money as a monetary anchor. Gilbert's perspective suggests that the Fed should promote par clearing as an independent policy goal.

The Fed's decision not to exercise its par clearing authority in addressing the par clearing problem with cards reflects a narrow interpretation of its par clearing mandate and conforms to Stevens' view of the proper scope of that authority. The Fed did not see interchange fees as undermining the public's confidence in private money despite the fact that merchants were

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134. This prohibition was introduced through the so-called Hardwick amendment, which, allowed member and non-member banks to make reasonable exchange charges for checks presented by other banks but it expressly provided that "no such charges shall be made against the Federal Reserve banks." Howard H. Preston, *The Federal Reserve Banks' System of Par Collections*, 28 J. POL. ECON. 565, 569 (1920).

135. Gilbert, *supra* note 72 at 131.

136. *Id.*

137. *Id.*

138. *Id.*

139. *Id.*

reluctant to accept card payments or, for that matter, its own role as monetary steward.[140] The Fed's choice not to exercise its authority should also be viewed in the context of comparative institutional considerations. As Gilbert notes, "[t]he inefficiencies of the payments system that resulted from this collusion among New York City banks might have been remedied through antitrust enforcement, rather than through government involvement in check collection. But when the Fed was founded [in 1913], such collusive agreements among banks were common, and they were not subjected to antitrust enforcement."[141]By the late 20th century, however, the regulatory environment had shifted, and interchange fees became the subject of litigation. This litigation arose because merchants argued that these fees unfairly advantaged large financial institutions and card networks at the expense of smaller businesses and consumers.[142]

This ongoing tension raises fundamental questions: Can a payment system dominated by private money satisfy the users' medium of excahnge and store of value needs? If so, does the existing regulatory framework for private money issuers and private money itself provide sufficient assurance for policymakers to disregard public money's role as a monetary anchor?

II.
Public Money's Role as a Monetary Anchor in the Contemporary Financial System

This Part explores two interrelated challenges that stem from the growing role of private money relative to public money in the economy. The first challenge concerns the market power of dominant payment firms, such as Visa and Mastercard, which control the electronic funds transfer (EFT) market. The Federal Reserve's historically passive approach toward EFTs allowed these networks to expand unchecked, resulting in concentrated market power that shapes costs, accessibility, and

140 Stevens, *supra* note 127 at 25 ("The central bank needed institutional glue to become attached to the commercial and financial system. This was to be provided by taking over a significant share of the market for interbank and check collection services, previously provided by the correspondent banking system. To this they added other correspondent services over the years,").

141. Gilbert, *supra* note 72 at 125.

142. *See infra* Section II.A.

merchant acceptance.[143] Over time, policy efforts to address this concentration shifted from central bank oversight to antitrust enforcement, yet litigation against Visa and Mastercard has proven insufficient to create a competitive payment system free from distortions.

The second challenge arises from the efforts of payment firms to disrupt the traditional banking model by unbundling banking services. This transformation enables them to operate outside traditional banking regulations, creating regulatory arbitrage opportunities while also introducing new risks to consumers, particularly regarding the safety and accessibility of deposits. Unlike commercial banks, these firms do not necessarily provide the same level of protection, leaving consumers vulnerable if a payment provider defaults and customers are unable to withdraw their funds.

Taken together, these challenges highlight the limitations of relying solely on private market mechanisms and antitrust enforcement to safeguard confidence in private money. This Part will examine why these mechanisms have fallen short and whether the Federal Reserve's role should evolve to address these emerging risks to the payment system and monetary stability.

A. *Market Power of Payment Firms*

In the early days of its existence, the Fed dedicated efforts to counteract the dominance of powerful clearinghouse that sought to exclude certain banks or to impose excessive fees for processing payment orders.[144] A quintessential example of such behavior was exhibited by the New York Clearing House, which facilitated collusion among New York City.[145] Given the lack of antitrust scrutiny at the time, the Federal Reserve opted for a different approach to address the problem of excessive market power.[146] Rather than relying solely on regulatory enforcement, the Fed chose to enter the market directly by offering its own check collection services.[147] This move introduced competition

143. *Cf. supra* Section I.D.
144. *See supra* Section I.B.
145. *Id.*
146. *Id.*
147. *Id.*

to clearinghouses, thereby challenging the entrenched power of these incumbent organizations.[148]

This strategic intervention by the Fed not only disrupted the monopolistic practices of dominant financial players but also promoted a more inclusive environment.[149] Traditionally, smaller banks and those situated in rural areas have relied more heavily on the Fed for check processing.[150] This reliance stemmed from their limited access to clearinghouses and the impracticality of directly presenting checks to other banks.[151] Additionally, banks frequently utilized the Fed for checks drawn on banks located outside their immediate area.[152] The Federal Reserve's market share increased notably in the 1970s following the creation of regional check processing centers, which significantly impacted local clearinghouses by drawing business away from them.[153]

Visa (and Mastercard) can be understood as a type of a clearinghouse. Visa functions similarly to a clearinghouse in that it (1) facilitates the communication between the merchant's bank and the cardholder's bank to authorize the transaction, and (2) handles the clearing process by calculating the net amount owed between the financial institutions involved in the transaction.[154] Visa's network offered a faster and more efficient alternative to checks, transforming the way payments were made at the point of sale.[155]

However, this development brought with it new regulatory challenges, particularly concerning the interchange fees associated with card payments. As discussed in Section I.C, in 2010, Congress intervened to regulate these fees, authorizing the Federal Reserve to cap them for debit card transactions (but not

148. *Id.*
149. *See supra* Section I.D.
150. *Id.*
151. *Id.*
152. *Id.*
153. Am. Bankers Ass'n, A Quantitative Description of the Check Collection System: A Report of Research Findings on the Check Collection System 82 (1981).
154. *See generally* Visa Rules, *supra* note 104.
155. Card payments are just one of many possible forms of EFTs. Wire transfers are another commonly used form albeit mainly in the context of corporate payments rather than retail point of sale payments. *Cf.* Hal S. Scott, *Corporate Wire Transfers and the Uniform New Payments Code*, 83 Columbia Law Review 1664, 1675 (1983).

for credit cards).[156] What was not discussed in Section I.C was that the policy initiative to cap interchange fees on debit cards was the result of a prolonged struggle among various stakeholders to challenge Visa's dominant position in the market.[157] This struggle was reflected in antitrust litigation, where Visa's practices were scrutinized under antitrust law. The legal battles and subsequent regulatory measures highlight the ongoing tension between private entities' operational autonomy and the public interest in ensuring access to a payment system.

National Bancard Corp. (NaBanco) v. Visa USA, Inc. (hereinafter, *NaBanco*) was the first antitrust case on the interchange fees issue.[158] NaBanco, a third-party processor of credit card transactions, alleged that Visa set interchange fees in an anticompetitive manner.[159] Specifically, NaBanco argued that Visa's fixed interchange rates facilitated collusion among member banks, allowing them to collectively set prices in a manner that stifled competition.[160] This fee structure, NaBanco asserted, enabled Visa's member banks, which both issued cards and signed merchants, to offer lower merchant discounts for "on-us" transactions (transactions where the card issuer and the merchant's bank are the same).[161] According to NaBanco, such pricing strategies effectively excluded independent processors like themselves from the market as they could not compete with the lower rates offered by Visa-affiliated banks.[162]

Visa argued that it lacked market power in the relevant market, which it defined as encompassing all payment methods, including cash, checks, and other forms of payment.[163]

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156. *See supra* Section I.C.
157. As seen in this seciton.
158. Nat'l Bancard Corp. v. Visa, 596 F. Supp. 1231 (S.D. Fla. 1984).
159. *Id.* at 1236.
160. *Id.*
161. *Id.* at 1240.
162. *Id.*
163. *Id.* at 1252. The district court found that the cross elasticity of both demand for and supply of Visa and other payment devices is quite high. *Id.* at 1257. The court relied on cardholder and merchant testimony that it believed demonstrated that "the Visa services [are] equivalent or sufficiently close to a variety of payment systems used in retail sales, including other credit cards, travelers cheques, cash, ATM cards, personal checks, and check guarantee cards." *Id.* at 1257–58. The court, relying also on expert testimony about the substitutability between Visa and other payment devices, including ATM cards, debit cards, and proprietary cards, summarized its findings: "While each of these different payment service devices was not considered to be a close substitute for a VISA card for purchases of every possible product at

The court concurred with Visa's market definition and noted that "even if NaBanco had established that Visa had power in a relevant market and that [the interchange fee] had substantial anticompetitive effects, Visa established that [the interchange fee] is necessary to offer the Visa card a pro-competitive benefit which offsets any anticompetitive effect."[164] By "pro-competitive effects," the court refers to the fact that the fee (1) eliminates the costly uncertainty and prohibitive time and expense of "price negotiations at the time of the exchange" between the thousands of VISA members and (2) that the parties to a national bankcard system must distribute the costs of the system in relation to prospective benefits so as to encourage members to engage in the appropriate balancing of card-issuing and merchant-servicing.[165]

NaBanco sparked controversy among antitrust scholars, particularly with respect to the court's determination of the relevant market.[166] Critics argued that the inclusion of all payment methods as substitutes for card payments ignored the nuances of market power in the credit card industry. For example, citing the Supreme Court's decision in *United States v. E.I. du Pont de Nemours & Co.*,[167] Carlton and Frankel noted that the existence of substitutes does not preclude the possibility of market power.[168] Specifically, they argue that market power may still exist even if substitutes are present, particularly if the demand

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every possible price, all payment services taken together were sufficient to provide, at the least, several close substitutes for a VISA card in any possible context." *Id.* at 1258. Renata B. Hesse & Joshua H. Soven, *Defining Relevant Product Markets in Electronic Payment Network Antitrust Cases Symposium–Antitrust Issues in Payment Card Systems*, 73 ANTITRUST L.J. 709 (2005) (discussing the conceptual and analytical issues in defining the relevant product market in electronic payment network cases).

164. Nat'l Bancard Corp, 596 F. Supp. at 1265.

165. *Id.* at 1259–60.

166. *See e.g.*, Dennis W. Carlton & Alan S. Frankel, *The Antitrust Economics of Credit Card Networks Symposium: Post-Chicago Economics*, 63 ANTITRUST L.J. 643, 652 (1994).

167. In this case, the Supreme Court held that the fact that other flexible wrapping materials were being sold successfully meant that the relevant market could not be limited to cellophane and that a firm controlling all cellophane sales could not have market power. Yet this is incorrect, for it ignores the possibility that with more cellophane competition the price of cellophane would have fallen, making those other products less desirable substitutes. United States v. E. I. du Pont de Nemours & Co., 351 U.S. 377 (1956).

168. Carlton & Frankel, *supra* note 166 at 652.

for the product or service is inelastic or the cost of switching to a substitute are high.[169]

The view that Visa did not have market power was challenged in *SCFC ILC, Inc. v. Visa USA Inc* [hereinafter, *Sears*].[170] The case originated from a dispute involving Visa USA's refusal to allow Sears to issue Visa credit cards. This decision was based on Visa's Bylaw 2.06, which restricted membership to avoid conflicts of interest with competitors.[171] Sears acquired the assets of the bankrupt MountainWest Savings and Loan Association, including its Visa USA membership.[172] Sears then created SCFC ILC, Inc. to launch a new Visa program named Prime Option.[173] Sears prepared to print 1.5 million Prime Option Visa cards.[174]

Upon discovering Sears' plan, Visa USA canceled the card printing and invoked Bylaw 2.06 to exclude Sears from the network. According to Visa, this Bylaw was intended to protect its intellectual property rights and to encourage innovation and risk-taking in business.[175] Visa also pointed out that it might help stimulate intersystem competition.[176] But the district court disagreed, finding that Visa's actions did harm competition and prevented consumers from accessing the Prime Option card, thus violating antitrust laws.[177]

Visa appealed, arguing that allowing Sears to issue Visa cards would harm competition more than excluding Sears from membership.[178] The appellate court reviewed the evi-

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169. *Id.* at 652–53.

170. SCFC ILC, Inc. v. Visa USA Inc., 819 F. Supp. 956 (D. Utah 1993).

171. Bylaw 2.06 stated as follows:

> [I]f permitted by applicable law, the corporation shall not accept for membership any applicant which is issuing, directly or indirectly, Discover cards or American Express cards, or any other cards deemed competitive by the Board of Directors; an applicant shall be deemed to be issuing such cards if its parent, subsidiary or affiliate issues such cards.

Id. at 964.

172. *Id.*

173. *Id.*

174. *Id.*

175. *Id.* at 987.

176. Visa argued that the intersystem market is already highly concentrated with only five system-level competitors: Visa, MasterCard, Discover, American Express and Diners Club/Carte Blanche. *Id.* If Sears were to join the Visa system, Visa argues that competition between Discover and Visa will decrease, thereby affecting competition on the intersystem level. *Id.*

177. *Id.*

178. SCFC ILC, Inc. v. Visa USA, Inc., 36 F.3d 958, 962 (10th Cir. 1994).

dence, including expert testimony on Visa's market power and the potential competitive effects of allowing Sears to issue Visa cards. The court ultimately sided with Visa USA, reversing the district court's decision.[179] It concluded that the harm to competition from excluding Sears was justified by the need to prevent conflicts of interest and maintain a competitive environment within the Visa network. [180]

The third important case, *United States v. Visa, U.S.A., Inc.* [hereinafter *Visa USA*] was brought by the Department of Justice (DOJ) against both Visa and Mastercard.[181] The DOJ challenged that (1) the Visa and MasterCard boards and committees were dominated by many of the same banks and (2) the exclusivity rule, which prohibited member banks from issuing credit cards for competing networks, specifically American Express (Amex) and Discovery, undermined competition in the market for general card network services.[182] The court rejected the government's first claim, but found that the exclusivity rule did unlawfully restrain competition.[183] Regarding the relevant product market, Visa relied on its *NaBanco* position but the court disagreed and adopted the market definition proposed

179. *Id.* at 962, 972.

180. *Id.* at 972 ("Given Visa USA's justification the bylaw is necessary to prevent free-riding in a market in which there was no evidence price was raised or output decreased or Sears needed Visa USA to develop the new card, we are left with a vast sea of commercial policy into which Sears would have us wade. To impose liability on Visa USA for refusing to admit Sears or revise the bylaw to open its membership to intersystem rivals, we think, sucks the judiciary into an economic riptide of contrived market forces. Whatever currents Sears imagines Visa USA has wrongly created, we believe can be better corrected by the marketplace itself. The Sherman Act ultimately must protect competition, not a competitor, and were we tempted to collapse the distinction, we would distort its continuing viability to safeguard consumer welfare.").

Interestingly, in *MountainWest*, Visa did not pursue its position in *NaBanco* that the relevant product market included all forms of payment and instead stipulated that the product market was limited to general-purpose credit cards. Visa maintained, however, that even in this narrower market it could not have market power because prices to consumers allegedly were set independently by Visa's six thousand member banks. *Id.* at 967–68; K. Craig Wildfang & Ryan W. Marth, *The Persistence of Antitrust Controversy and Litigation in Credit Card Networks*, 73 ANTITRUST L.J. 675 (2005).

181. United States v. Visa U.S.A., Inc., 163 F. Supp. 2d 322 (S.D.N.Y. 2001).

182. *Id.* at 327.

183. *Id.*

by the government's expert as that of the general purpose card market.[184]

In the fourth case, *In re Visa Check/MasterMoney Antitrust Litigation* [hereinafter *MasterMoney*], a class of approximately five million merchants led by Wal-Mart challenged the practice of tying debit and credit products, a.k.a. the honor-all-cards rule that Visa and Master Card imposed on merchants.[185] The class alleged that the rule violated Section 1 of the Sherman Act by illegally tying credit and debit network services, and Section 2 because they constituted an attempt to monopolize the debit card network services market.[186] The merchants argued that credit and debit network services are distinct because merchants were unlikely to consider them substitutes.[187] Visa argued they form part of the same payment market, together with cash and checks, yet again echoing its *NaBanco* argument. The court sided with the merchants, denying Visa's motion for summary judgment and leaving for trial the main issues.[188] Shortly after the court entered its summary judgment order, Visa and MasterCard settled for a collective $3.05 billion, to be paid to the merchants over ten years.[189]

As legal scholars Wildfang and Marth observed, the outcomes of the *Visa USA* and *MasterMoney* cases were ostensibly unfavorable for Visa and MasterCard from a litigation

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184. Specifically, the court identified two relevant markets for antitrust analysis: the general purpose card network services market and the general purpose card market. *Id.* at 336. The court's decision was supported by the evidence of consumer preferences. *Id* at 335. The card network market consisted of the suppliers of services to general purpose card issuers. *Id* at 336. This market encompasses the infrastructure and services that enable the operation of general purpose card networks, further distinguishing it from other payment systems. *Id.* at 338.

185. *In re* Visa Check/Mastermoney Antitrust Litig., 297 F. Supp. 2d 503 (E.D.N.Y. 2003).

186. *In re* Visa Check/Mastermoney Antitrust Litig., No. 96-CV-5238 (JG), 2003 U.S. Dist. LEXIS 4965, at *5–6 (E.D.N.Y. Apr. 1, 2003)

187. *Id.* at *8–9.

188. *Id.* at *9–10. The court found that credit and debit network services are sold separately, that "many merchants would refuse to use off-line debit services if given the choice to do so," and that the defendants had "acknowledged in their business strategy and marketing activities the distinctive attributes of their off-line debit services compared to their credit services". *Id.* at *8–9.

189. Settlement Agreement, *In re* Visa Check/Mastermoney Antitrust Litigation, No. CV-96-5238 (E.D.N.Y. June 4, 2003), www.sec.gov/Archives/edgar/data/1403161/000119312507140569/dex101.htm.

standpoint.[190] The judgments in these cases marked clear defeats for the card networks, as they faced legal challenges and were compelled to provide relief. However, the remedies provided in these cases have proven inadequate in preventing subsequent increases in interchange fees. Despite the settlements reached with the Wal-Mart class, which mandated reductions in debit card interchange fees effective August 1, 2003, both Visa and MasterCard simultaneously increased their credit card interchange fees on the same day.[191] Shortly after, Visa announced additional increases in credit card interchange fees.[192] The company has even communicated to retailers its intention to continue raising these fees biannually.[193] Consequently, for most merchants, the overall burden of interchange fees has likely escalated within the short period after the settlement.

The settlement, though significant in terms of financial compensation for the merchants, has thus had limited practical impact in curbing the upward trend of interchange fees. From the merchants' perspective, the relief obtained appears to be a Pyrrhic victory, as the underlying issue of rising costs associated remains unaddressed. In this context, the 2024 U.S. DOJ lawsuit against Visa provide further indication of Visa's anticompetitive practices.[194] DOJ's 2024 lawsuit accuses Visa of monopolizing the debit card network market, using its dominance to stifle competition and to maintain high fees.[195] The lawsuit emphasizes that Visa's monopolistic positions prevent competitors from gaining market share and thereby allowing Visa to raise fees without challenge.[196]

These developments highlight the limitations of antitrust litigation and remedies in effectively regulating the practices of

190. Wildfang and Marth, *supra* note 180 at 690.
191. *Id.*
192. *Id.*
193. *Id.*
194. *Id.*
195. Complaint at 10–11, United States v. Visa Inc., No. 1:24-cv-7214 (S.D.N.Y. 2024), ECF 1.
196. *Id.* at 5. ("Visa profits from its monopoly by collecting a higher fraction of each debit transaction than it would if it faced competition. Visa's schemes are largely invisible to consumers, in part because its debit transaction fees make up a relatively small fraction of each transaction, but total to billions of dollars annually. Collectively, however, Visa's systematic efforts to limit competition for debit transactions have resulted in significant additional fees imposed on American consumers and businesses and slowed innovation in the debit payments ecosystem.").

dominant players in the payment card industry. As discussed in Part I, the most significant regulation of interchange fees came from the Durbin Amendment to the Dodd-Frank Act but was limited to fees in relation to debit card payments. Unlike debit interchange fees, credit card interchange fees are not directly regulated by the federal government.[197]

These developments also justify the concern that the dominance of Visa (and MasterCard) poses a challenge to the Federal Reserve's role in the payment system. This concern partly motivated the launch of FedNow, a real-time payment system developed by the Fed.[198] FedNow is intended to directly compete with existing private payment networks including Visa and Mastercard.[199] Unlike these private networks, FedNow will be accessible only to banks and other financial institutions, with the ultimate goal of providing businesses and consumers with faster payment options.[200]

Visa and Mastercard have chosen not to participate in the FedNow system, despite being members of similar systems in other global markets.[201] Although both companies offer their own real-time payment services—Visa Direct™ and Mastercard Send™—there are concerns that FedNow could undermine their market share.[202] According to media reports, the pricing structure for FedNow is more competitive, offering lower per-transaction costs compared to traditional debit transactions.[203] This cost advantage, combined with the potential for widespread adoption by major banks, suggests that FedNow could significantly impact the business models of established private networks like Visa and Mastercard.[204] As the landscape

197. Andrew P. Scott, Cong. Rsch. Serv., R48216, Credit Card Swipe Fees and Routing Restrictions 1 (2024). The Credit Card Competition Act of 2023, aimed to give customers the choice of routing in the same way that Reg II gave it for debit cards. As of the time of the writing of this article, the bill has been referred to the Committee on Banking, Housing, and Urban Affairs. Credit Card Competition Act of 2023, H.R. 3881, 118th Cong. (2023).

198. About the FedNow Service, FRBservices.org, www.frbservices.org-/financial-services/fednow/about.html (last visited Jul 26, 2024).

199. *See* Paul R. La Monica, *Visa and Mastercard Have a New Rival. It's the Fed.*, barrons (Jul. 1, 2024), www.barrons.com/articles/visa-mastercard-stock-fed-debit-bcfb6db3.

200. *Id.*

201. *Id.*

202. *Id.*

203. *Id.*

204. *Id.*

evolves, the participation of more major banks in the FedNow network seems increasingly likely, indicating a potential shift in the competitive dynamics of the payment processing industry.

The Federal Reserve's direct involvement in establishing a competing payment infrastructure, exemplified by the development of FedNow, is evocative of the Fed's foundational approach to anchoring itself in the financial system. This initiative mirrors the Fed's early twentieth-century strategies, where it proactively entered the payment system to provide essential services, thereby fostering competition.[205] In the contemporary context, the creation of FedNow reflects a similar commitment to enhancing the efficiency and accessibility of the U.S. payments system. By offering a public alternative to private real-time payment networks, the Fed is seeking to address the dominance of major players like Visa and Mastercard, which have traditionally controlled significant portions of the payment processing market. This move not only introduces a competitive element that could drive down transaction costs but also aims to restore confidence in the payment system.

B. *Disintermediation of Banks*

The second challenge to the Federal Reserve's pivotal role in the payment system arises from the emergence of new entrants in the financial landscape, particularly non-bank entities involved in the facilitation of EFTs. These new entrants include peer-to-peer platforms, such as PayPal or Venmo, digital wallets, such as Apple Pay or Google Pay and banking-as-service (BaaS) providers.[206] Unlike traditional banks, these new entrants operate within a fragmented regulatory framework that is predominantly governed by state money-transmitting laws.[207] This regulatory divergence creates a complex and often

205. *See supra* Section I.C.

206. Digital currencies, such a bitcoin, can also be used as payment methods, but they have not been that popular. Dirk G. Baur, KiHoon Hong & Adrian D. Lee, *Bitcoin: Medium of Exchange or Speculative Assets?*, 54 J Int'l Fin Mar, Insts and Money 177 (2018). The authors analyze the statistical properties of Bitcoin and find that it is uncorrelated with traditional asset classes such as stocks, bonds and commodities both in normal times and in periods of financial turmoil. *Id.* Their analysis of transaction data of Bitcoin accounts shows that Bitcoins are mainly used as a speculative investment and not as an alternative currency and medium of exchange. *Id.*

207. *See generally* Mann, *supra* note 17.

inadequate oversight environment, leaving significant gaps in consumer protection.

The rapid growth of firms like PayPal exemplifies this phenomenon, as its swift ascent has raised critical questions about the adequacy of existing regulations for the payment system. PayPal was licensed in 2002 as a money transmitting business (MTB) under Maryland law.[208] The scope of its license covered money transmission activities, as well as issuance and sale of payment instruments, travelers' checks, and other types of stored value.[209] PayPal operated on an account-based system, where users created accounts linked to their email addresses.[210] These accounts could be funded through various means, including bank transfers and cards.[211] One of PayPal's key innovations was using email addresses as unique identifiers for accounts. This approach simplified the process of sending and receiving money. Users could initiate transactions by entering the recipient's email address, making the payment process intuitive and accessible.

PayPal quickly became a popular payment option for online merchants and auction sites, notably eBay. Integration was straightforward. Merchants could add PayPal "Buy Now" buttons to their websites, allowing customers to complete

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208. All money transmission is provided by PayPal, Inc. pursuant to PayPal, Inc.'s licenses (NMLS ID #: 910457). PayPal, Inc. is also licensed as a money transmitter in all other states. *PayPal State Licenses*, PAYPAL, www.paypal.com/us/licenses (last visited Jun. 24, 2024).

209. MD. CODE ANN., FIN. INST. § 12-401(p)(1) (West 2023) ("Money transmission" means engaging in the business of selling or issuing payment instruments or prepaid access or receiving currency, funds, or other value that substitutes for currency and transferring currency, funds, or other value that substitutes for currency to another person or a location within or outside the United States by any means, including electronically, through the Internet, through a mobile application, through a network of persons, or through an informal value transfer system.).

210. As Pay Pal's website states: "You can send money to almost anyone, in just a few easy clicks. All they need is an email address." *Send Money in a Few Seconds*, PAYPAL, www.paypal.com/va/webapps/mpp/send-money-online [web.archive.org/web/20250601083142/https://www.paypal.com/va/webapps/mpp/send-money-online].

211. According to PayPal, users can add money to their balance by linking a bank account or a Visa or Mastercard debit card. *How Do I Add Money to my PayPal Balance From My Bank*, PAYPAL, www.paypal.com/us/cshelp/article/how-do-i-add-money-to-my-paypal-balance-from-my-bank-help114 (last visited Feb. 13, 2025). Transfers from a bank account typically take up to five business days, while adding funds via a debit card can be completed in seconds. *Id.*

purchases through PayPal.[212] Alternatively, PayPal provided Application Programming Interfaces for developers, enabling seamless integration with various e-commerce platforms.[213] In 2008, PayPal's parent company, eBay, acquired Bill Me Later, Inc., which operated as a licensed collection agency in different states.[214] As the business grew, it was rebranded as PayPal Credit[215] and provided services for Synchrony Bank, the lender of PayPal Credit accounts.[216] These accounts became very popular and are now commonly known as BNPL (Buy Now, Pay Later) services.[217] Despite their growing popularity, until recently they have remained almost entirely unregulated.[218]

From the outset, there were questions as to what regulations, if any, apply to PayPal.[219] First, there was the issue of

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212. *Make a PayPal Button*, PayPal, www.paypal.com/buttons/ (last visited Feb. 13, 2025).

213. PayPal Developer, developer.paypal.com/home/ (last visited Feb. 13, 2025).

214. Mike Hofman, *eBay Buys Bill Me Later for Nearly $1 Billion*, Inc. Mag. (Oct. 7, 2008), www.inc.com/mike-hofman/2008/10/ebay_buys_bill_me_later_for_ne.html.

215. Devindra Hardawar, *PayPal Rebrands Bill Me Later as PayPal Credit, Businesses Already Borrowing Over $150M,* VentureBeat (July 30, 2014), venturebeat.com/business/paypal-rebrands-bill-me-later-as-paypal-credit-businesses-already-borrowing-over-150m/.

216. *PayPal and Synchrony Complete Consumer Credit Receivables Sale,* Synchrony (July 3, 2018), www.synchrony.com/contenthub/newsroom/paypal-and-synchrony-complete-consumer-credit-receivables-sale.html.

217. Wenlong Bian, Lin William Cong & Yang Ji, *The Rise of E-Wallets and Buy-Now-Pay-Later: Payment Competition, Credit Expansion, and Consumer Behavior* (Nat'l Bureau of Econ. Rsch., Working Paper No. 31202, 2023), www.nber.org/papers/w31202.

218. In May 2024, the Consumer Financial Protection Bureau (CFPB) issued an interpretive rule that confirms that BNPL lenders are credit card providers. Truth in Lending (Regulation Z), 89 Fed. Reg. 47068 (codified at 12 CFR Pt. 1026) (applicable as of July 30, 2024). Accordingly, BNPL lenders must provide consumers some key legal protections and rights that apply to conventional credit cards. *Id.* These include a right to dispute charges and demand a refund from the lender after returning a product purchased with a BNPL loan. *Id.* The CFPB launched its inquiry into the rapidly expanding BNPL market more than two years ago and continues to see consumer complaints related to refunds and disputed transactions. *CFPB Takes Action to Ensure Consumers Can Dispute Charges and Obtain Refunds on Buy Now, Pay Later Loans*, Consumer Fin. Protection Bureau (May 22, 2024), www.consumerfinance.gov/about-us/newsroom/cfpb-takes-action-to-ensure-consumers-can-dispute-charges-and-obtain-refunds-on-buy-now-pay-later-loans/.

219. *See, e.g.*, Eric Pacifici, *Making PayPal Pay: Regulation E and Its Application to Alternative Payment Services,* 13 Duke L. & Tech. Rev. 90 (2015).

the applicability of Regulation E,[220] which implements the Electronic Funds Transfer Act[221] and applies to account transfers from financial institutions. Under Reg E, an "account" is defined as "a demand deposit (checking), savings, or other consumer asset account (other than an occasional or incidental credit balance in a credit plan) held directly or indirectly by a financial institution and established primarily for personal, family, or household purposes."[222] A "financial institution," in turn, is defined as "a bank, savings association, credit union, or any other person that directly or indirectly holds an account belonging to a consumer, or that issues an access device and agrees with a consumer to provide electronic fund transfer services."[223] PayPal resisted such classification in litigation, and the case ultimately settled.[224]

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220. Electronic Fund Transfers (Regulation E), 12 C.F.R. pt. 1005 (2023).

221. Electronic Fund Transfer Act, 15 U.S.C. §§ 1693–1693r.

222. Electronic Fund Transfers (Regulation E), 12 C.F.R. § 205.2(b)(1). The term also includes a "payroll card account" which is an account that is directly or indirectly established through an employer and to which electronic fund transfers of the consumer's wages, salary, or other employee compensation (such as commissions), are made on a recurring basis, whether the account is operated or managed by the employer, a third-party payroll processor, a depository institution or any other person. *Id.* § 205.2(b)(2). However, this prong of the definition is not relevant here as PayPal does not maintain such accounts.

223. *Id.* § 205.2(i).

224. For example, in a class action brought in 2002, the claimants alleged that PayPal had violated several aspects of the EFTA and Regulation E. [Proposed] Second Amended Class Action Complaint ¶ 105, *In re* PayPal Litigation, No. 02-01227, 2003 WL 24240480 (N.D. Cal. June 11, 2004), ECF 234. PayPal denied liability under the EFTA for the alleged claims. The action was settled in 2004 without an admission by PayPal that it is subject to the EFTA and Regulation E. Press Release, PayPal, Preliminary Settlement Reached in PayPal Class Action Lawsuit (June 14, 2004), newsroom.paypal-corp.com/2004-06-14-Preliminary-Settlement-Reached-in-PayPal-Class-Action-Lawsuit. In a second case, brought by twenty-eight state attorneys general in 2006, also alleged confusion over the applicability of consumer protections. The suit was again settled without an admission by PayPal that it is subject to the EFTA and Reg E. *PayPal Announces Settlement Agreements*, PayPal Newsroom (Sept. 28, 2006), newsroom.paypal-corp.com/2006-09-28-PayPal-Announces-Settlement-Agreements. As Pacifici notes, currently PayPal's user agreement purports to go beyond the protections of Reg. E. Pacifici, *supra* note 219 at 92. In fact, PayPal purports to cover 100% of any loss resulting from unauthorized transactions—such as theft or erroneous withdrawals—so long as the user provides proper notification to PayPal. *Id.* at 104. Proper notification requires users to notify PayPal of the loss within 60 days. This agreement eliminates the $50 or $500 loss stipulations of Reg. E for "timely" or "untimely" notifications. *Id.*

Second, even though firms like PayPal accept client funds, they are not subject to stringent federal oversight with respect to balance sheet regulation. For example, under Regulation D,[225] banks are subject to reserve requirements, which mandate that a certain percentage of deposit liabilities be held in reserve.[226] This is a liquidity safeguard to ensure that banks can meet customer withdrawals.[227]

MTBs, such as PayPal, operate under a distinct regulatory framework. Unlike banks, MTBs are not subject to reserve requirements because their primary business model focuses on the transfer of funds rather than deposit holding. As such, they are not obligated to maintain reserve funds to cover a percentage of liabilities, a key safeguard in the banking sector to ensure liquidity and customer protection.[228] To mitigate potential risks associated with the handling of customer funds, many

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225. Reserve Requirements of Depository Institutions (Regulation D), 12 C.F.R. pt. 204.

226. *Id.*

227. Recent amendments to Regulation D, particularly during the COVID-19 pandemic, underscore the dynamic nature of reserve requirement policies. Reserve Requirements of Depository Institutions, 85 Fed. Reg. 16525, 16525–26 (proposed Mar. 24, 2020) (amending 12 C.F.R. pt. 204). In March 2020, in response to unprecedented economic challenges, the Federal Reserve Board reduced the reserve requirement ratios to zero percent. Press Release, Board of Governors of the Federal Reserve System, Federal Reserve Actions to Support the Flow of Credit to Households and Businesses, (March 15, 2020) ("The Board has reduced reserve requirement ratios to zero percent effective March 26, 2020 . . . . This action eliminates reserve requirements for thousands of depository institutions."). This significant policy shift effectively eliminated reserve requirements for all depository institutions, aiming to enhance the liquidity and lending capacity of banks during a period of severe economic stress. The decision to set the reserve requirement to zero reflects the Fed's capacity to use regulatory tools flexibly to respond to changing economic conditions. *See* Reserve Requirements of Depository Institutions, 85 Fed. Reg. 16525, 16525–26 (proposed Mar. 24, 2020) (amending 12 C.F.R. pt. 204) ("In light of the shift to an ample-reserves regime . . . this action . . . will help to support lending to households and businesses.").

228. In Maryland, where PayPal holds its primary MTB license, MTBs are required to obtain a surety bond as part of the licensing process. MD. CODE ANN., FIN. INST. § 12-412 (West 2023). The surety bond protects customers and the state from potential losses or damages resulting from the failure of the money transmitter to fulfill its obligations. *Id.* This includes mishandling of funds, fraud, or non-compliance with regulatory requirements. The required bond amount varies depending on the volume of business conducted by the money transmitter. In Maryland, the minimum bond amount is typically set at $150,000, but it can increase based on the business volume or at the discretion of the Commissioner of Financial Regulation. *Id.* The exact amount is determined to ensure adequate protection for consumers.

states mandate that MTBs hold customer funds in trusts or segregated accounts separate from the company's operational funds.[229] Nevertheless, effectiveness and enforcement of these measures can vary significantly from state to state, resulting in a fragmented regulatory landscape.[230] This fragmentation underscores the disparate levels of consumer protection available across different states, potentially exposing customers to varying degrees of risk.[231]

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229. For example, In California, MTBs are regulated under the Money Transmission Act (MTA). CAL. FIN. CODE § 2037(e) (West 2013). The law requires MTBs to maintain customer funds in trust accounts separate from their operational accounts. CAL. FIN. CODE § 2037(g) The California Department of Financial Protection and Innovation (DFPI) enforces these rules and mandates that all customer funds be held in an account titled with the words "for the benefit of" or "trustee for" to indicate that the funds are held in a fiduciary capacity. Additionally, MTBs must maintain a surety bond or other security in an amount determined by the DFPI, which serves as additional protection for consumers in the event of business insolvency. Ximeng (Sammy) Tang & Kimberly Monty Holzel, *Significant State Regulatory Development in the Virtual Currency Industry in California and New York*, GOODWIN LAW (Apr. 30, 2024).

230. Benjamin Lo, *Fatal Fragments: The Effect of Money Transmission Regulation on Payments Innovation*, 18 YALE J.L. & TECH. 111 (2016) (examining the impact of the fragmentation of MTB regulation on innovation).

231. The Money Transmitter Modernization Act (MTMA) is a single set of nationwide standards for the supervision and regulation of money transmitters It was approved for state adoption by the Conference of State Bank Supervisors (CSBS). CONF. OF STATE BANK SUPERVISORS, CSBS MODEL MONEY TRANSMISSION MODERNIZATION ACT (2025), www.csbs.org/sites/default/files/2023-02/CSBS%20Money%20Transmission%20Modernization%20Act.pdf. Central to the MTMA are standardized licensing requirements, which would streamline the criteria for obtaining a money transmitter license, including standardized background checks, capital requirements, and business continuity plans. *Id.* at 14—15. Additionally, the MTMA proposes uniform reporting and examination standards, which would allow for consistent regulatory oversight and minimize the administrative burden of multiple, divergent state examinations. *Id.* at 43. The Act also encourages states to enter into reciprocity agreements, facilitating a more seamless licensing process for MTBs operating across state lines. *Id.* at 6. As of June 2025, thirty-one states have introduced MTMA-related legislation. *CSBS Money Transmission Modernization Act*, CONF. OF STATE BANK SUPERVISORS (June 10, 2025), www.csbs.org/csbs-money-transmission-modernization-act-mtma.

Another significant effort is the Multistate Money Services Businesses Licensing Agreement Program (MMLA), also led by the CSBS. *Multistate MSB Licensing Agreement Program*, CONF. OF STATE BANK SUPERVISORS, mortgage.nationwidelicensingsystem.org/slr/Documents/Multistate%20MSB%20Licensing%20Program%20FAQs.pdf (last visited July 10, 2024). The MMLA is designed to simplify the licensing process for MTBs that operate in multiple states by providing a single point of entry for licensing applications. This initiative includes coordinated supervision, where a lead state conducts

Despite this fragmented regulatory framework, some level of oversight exists for MTBs, but not all firms aiming to disintermediate traditional banks fall within the scope of oversight. A notable example of inadequate regulatory oversight is the failure of Synapse, who filed a voluntary Chapter 11 petition on April 29, 2024.[232] Synapse operated within the financial ecosystem as a BaaS provider. Such providers typically set up "for benefit of" (FBO) accounts at banks to manage funds on behalf of their clients.[233]

However, the regulatory framework governing BaaS providers and their use of FBO accounts remains underdeveloped,[234] leaving room for potential mismanagement of customer funds. For example, Synapse has encountered significant operational challenges concerning the management of its FBO accounts at its partner bank, Evolve Bank and Trust.[235] According to media reports, the issue arose from the handling of interchange fees between Synapse and Evolve for payments made by Synapse's customers.[236] Synapse mistakenly overcharged its clients by deducting funds from the FBO accounts to cover both the purchase amounts and the interchange fees.[237] Interchange fees should have been financed through Synapse's operational funds, which are typically included in the client fee structure.[238] The error led to a $14 million overcharge to the FBO account, which holds the funds of consumer-facing fintech companies.[239]

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examinations that other states can rely on, thereby reducing redundant regulatory efforts. *Id.* The MMLA also offers a standardized application process and a unified reporting system, enabling MTBs to manage their regulatory requirements more efficiently. *Id.* This coordinated approach not only reduces the complexity and cost of compliance for MTBs but also enhances the effectiveness of regulatory oversight.

232. *In re* Synapse Technologies, Inc., No. 1:24-bk-10646-MB (Bankr. C.D. Cal. June 20, 2024).

233. Emily Mason, *Against The Clock: Synapse Has Two Months To Find New Bank Partner*, Forbes (Oct. 27, 2023), www.forbes.com/sites/emilymason/2023/10/27/against-the-clock-synapse-has-two-months-to-find-new-bank-partner/.

234. *See generally* Jason Mikula, Banking as a Service: Opportunities, Challenges, and Risks of New Banking Business Models (2024).

235. Mason, *supra* note 233.

236. *Id.*

237. *Id.*

238. *Id.*

239. *Id.*

In a September 2023 correspondence, Synapse's CEO Sankaet Pathak attributed the error to Evolve.[240] Following the discovery of this discrepancy by Kroll Consulting, Evolve responded by increasing the required minimum balance in Synapse's reserve account to $50 million.[241] Synapse's failure to meet this new reserve requirement resulted in Evolve redirecting approximately $16 million in rebates owed to Synapse into the reserve fund.[242] Coinciding with the increase in the reserve requirement, Synapse was notified that Mercury, a key customer, would not renew its contract and instead opted for a direct partnership with Evolve.[243] This development precipitated a series of adverse outcomes for Synapse, including the abrupt layoff of 40% of its workforce without severance pay.[244]

Ultimately, Synapse filed for bankruptcy after losing several key partnerships.[245] On May 11, 2024, the company disabled access to a critical technology system required to manage transactions and account details.[246] As a result, numerous customers found themselves unable to access their funds.[247] Jelena McWilliams, former chair of the FDIC, who has been brought in as the Chapter 11 bankruptcy trustee for the company, stated in a court filing that Synapse's partner banks are holding between $65 million and $96 million less than what it owes Synapse's customers.[248]

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240. Jason Mikula, *$13M in Missing User Funds: Evolve, Synapse Play Blame Game as BaaS Crisis Intensifies*, FINTECH BUS. WEEKLY (Oct. 8, 2023), fintechbusinessweekly.substack.com/p/13m-in-missing-user-funds-evolve (last visited Aug 6, 2024).

241. *Id.*

242. *Id.*

243. *Id.*

244. *Id.*

245. *Trustee Report Sheds New Light on Synapse Bankruptcy*, PYMNTS (Nov. 26, 2024), www.pymnts.com/partnerships/2024/what-synapses-court-filings-reveal-about-the-future-of-bank-fintech-partnerships/.

246. *What Happened to Synapse? Synapse Bankruptcy Freezes Customer Funds*, HOST MERCH. SERVS. (June 10, 2024), www.hostmerchantservices.com/2024/06/what-happened-to-synapse/.

247. Hugh Son, *Fintech Nightmare: 'I Have Nearly $38,000 Tied up' After Synapse Bankruptcy*, CNBC (May 22, 2024), www.cnbc.com/2024/05/22/synapse-bankruptcy-customer-funds.html.

248. David Dayen, *Treasury Foresaw the Synapse Collapse Two Years Ago*, AM. PROSPECT (June 19, 2024), prospect.org/api/content/83937a0a-2dbe-11ef-acda-12163087a831/.

The Chapter 11 bankruptcy filing had profound implications for these depositors, who had become unsecured creditors of Synapse.[249] Synapse informed its customers that their accounts were FDIC-insured because the funds were held at Evolve Bank, an institution covered by FDIC insurance.[250] However, in practice, customer funds were pooled together in a shared FBO account, rather than being individually insured.[251] Synapse maintained subledgers to track each customer's portion of the FBO account.[252] Yet, when Synapse ceased operations, those subledgers became unavailable.[253] While Evolve Bank was responsible for auditing and reconciling these records, they delegated that responsibility to Synapse, leaving the system in a vulnerable state when the company failed.[254]

The Synapse case showcases critical regulatory shortcomings in the oversight of non-bank financial service providers. For instance, an anti-pooling requirement mandating the segregation of customer funds from operational accounts could have prevented the commingling of assets—a critical weakness in Synapse's model. Likewise, more stringent financial reporting and audit requirements for non-bank financial intermediaries could have flagged risks earlier. The incident raises pressing questions about the need for comprehensive reform to address the evolving financial landscape.[255]

The Synapse bankruptcy and the subsequent regulatory scrutiny of Evolve Bank & Trust highlight the broader challenges the Federal Reserve faces in maintaining its role in the

249. Claire Williams, *'I'm Left with Nothing': Life inside the Synapse Collapse*, Am. Banker (June 24, 2024), www.americanbanker.com/news/im-left-with-nothing-life-inside-the-synapse-collapse.

250. Grant, *supra* note 22.

251. *Id.*

252. *Id.*

253. *Id.*

254. *Id.*

255. On September 17, 2024, the FDIC issued a proposed rule entitled "Recordkeeping for Custodial Accounts" with the view to require depository institutions to take certain steps to ensure accurate account records are maintained in order to determine the individual owner of the funds, including a requirement to reconcile the account for each individual owner on a daily basis. *FDIC Proposes Deposit Insurance Recordkeeping Rule for Banks' Third-Party Accounts, FDIC (Sept. 17, 2024),* www.fdic.gov/news/press-releases/2024/fdic-proposes-deposit-insurance-recordkeeping-rule-banks-third-party.

payment system. The Federal Reserve's ability to impose discipline on entities involved in the system is limited to the entities it directly regulates, namely, banks. However, the rise of fintech partnerships has blurred the lines of traditional banking, introducing new risks and regulatory vacuums.

In the case of Evolve Bank & Trust, the Federal Reserve along with the Arkansas State Bank Department (collectively "the Supervisors") took enforcement action due to significant deficiencies in the bank's anti-money laundering, risk management, and consumer compliance programs.[256] These deficiencies were uncovered during an examination in August 2023, which revealed that Evolve, headquartered in West Memphis, Arkansas, had been engaging in unsafe and unsound banking practices.[257] The enforcement order mandates that Evolve address compliance and fraud risks through presenting a written plan that outlines improvements in its oversight and monitoring mechanisms for its relationships with fintech companies for the Supervisors' approval.[258]

The Supervisors' enforcement action against Evolve Bank & Trust underscores a broader regulatory emphasis on the necessity for banks to uphold stringent compliance and risk management standards, especially regarding their interactions with fintech partners. It also brings to light the growing detachment of the Federal Reserve from the payment system, exacerbated by the efforts of challenger institutions to disintermediate traditional banking institutions. This detachment poses a significant challenge for the Federal Reserve's ability to carry out its mandate. The rise of financial technology should not be evaluated solely through the lens of operational efficiency or convenience; it must also be understood as a systemic phenomenon that reshapes the distribution of power between public regulatory bodies and private sector entities.[259]

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256. Evolve Bancorp, Inc., Nos. 24-012-B-HC & 24-012-B-SM (Bd. Of Governors of the Fed. Rsrv. Sys. & Ark. State Bank Dep't) (cease and desist order issued upon consent).

257. *Id.*

258. *Id.*

259. Saule T. Omarova, *Technology v Technocracy: Fintech as a Regulatory Challenge*, 6 J. FIN. REGUL. 75 (2020) (arguing that fintech should be viewed as a systemic phenomenon).

III.
CBDC as a Monetary Anchor

A. *Digital Dollar as Monetary Anchor*

The anticompetitive practices of payment infrastructure operators and the ability of fintech firms to bypass traditional banks raise concerns about the adequacy of the regulatory framework governing private money issuers and private money itself. These developments suggest that policymakers cannot rely solely on private money regulation and should not overlook the importance of public money as a monetary anchor. The issue of public money as a monetary anchor is therefore intrinsically tied to the balance of power between public and private actors in the payment system.[260]Although the Federal Reserve's role has already expanded considerably as a result of its lender of last resort activities in the aftermath of the 2008 financial crisis,[261] this article argues that it should expand further due to the inadequacy of the regulatory framework governing private money issuers and private money itself.

As Crawford, Menand and Ricks have noted, the split between the role of public and private actors in the payments system has always been the central issue of financial regulatory history and policy in the United States.[262]

> And from the National Bank Act of 1864 to the Federal Reserve Act of 1913 and the Banking Acts of 1933 and 1935, the trajectory has generally been to make the dollar money supply more and more public.

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260. Versions of this argument can be found in the Fed's January 2022 paper. Money and Payments: The U.S. Dollar in the Age of Digital Transformation, Bd. Of Governors of the Fed. Rsrv. Sys. (Jan. 2022), [hereinafter U.S. Dollar in the Age of Digital], www.federalreserve.gov/publications/files/money-and-payments-20220120.pdf. "A U.S. CBDC would offer the general public broad access to digital money that is free from credit risk and liquidity risk." *Id.* at 14.

261. *See e.g.*, Perry Mehrling, The New Lombard Street: How the Fed Became Dealer of Last Resort (2011) (uncovering the intellectual history behind the lender of last resort function of the Fed); Kathryn Judge, *The First Year: The Role of a Modern Lender of Last Resort*, 116 Colum. L. Rev. 843 (2016) (revealing more than a year after the outbreak of the crisis during which Fed officials could have taken an array of actions that may have reduced the size of the Great Recession and the amount of credit risk and moral hazard stemming from the government's subsequent intervention).

262. Crawford, Menand & Ricks, *supra* note 27 at 120–21.

> This public conception reached its zenith with the New Deal system of bank regulation, the basic thrust of which was to bring private money creation within the public fold. Bank-issued money became a sovereign obligation through the mechanism of deposit insurance. Banks-money augmentation firms were required to inhabit a special institutional environment, segregated from the rest of the financial system. Bank chartering was restrictive and discretionary. And although one can quibble with the details, this system was on the whole very successful: it brought an unprecedented level of financial and macroeconomic stability. But the New Deal system began to erode in the 1970s, and the erosion accelerated in the 1990s and 2000s. Policymakers allowed a vast array of deposit substitutes-private moneys, denominated in dollars-to proliferate on a huge scale. In other words, the dollar money supply became increasingly privatized. And with this privatization, instability returned, culminating in the disaster of 2008 and the Great Recession.[263]

The privatization of the payment system does not endanger financial stability to the same extent as the growth of private money issuance prior to the 2008 financial crisis, but it does create higher payment costs.[264] While antitrust laws have long played an important role in reducing fees charged by those firms,[265] they have proven insufficient in addressing them

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263. *Id.* at 121. *Cf.* MORGAN RICKS, THE MONEY PROBLEM: RETHINKING FINANCIAL REGULATION (2016). As Ricks notes, issuing deposits (the predominant medium of exchange) is a privileged activity. *Id.* at 17. You need a special charter to do it, and chartered entities are surrounded by an elaborate institutional apparatus. *Id.* at 17. Issuing cash equivalents, by contrast, is not a legal privilege but a legal right. *Id.* at 20. Cash equivalents have no legal-institutional status as such; their issuance is a matter of property and contract. *Id.* A key inquiry for this book's design project is whether there is a respectable policy rationale for the stark institutional dichotomy between deposits and (non-deposit) cash equivalents. *Id.* at 21-26. He suggests there is no such rationale and argues that the issuance of (non-deposit) cash equivalents, such as repo, should be the exclusive legal privilege of chartered banks. *Id.* at 34–36.

264. *See supra* Section II.A.

265. For early accounts of the relevance of antitrust to banking, *see* Berle, *supra* note 13. *But see* Kress, *supra* note 13; *see also* Saule T. Omarova & Graham S. Steele, *supra* note 13 *Banking and Antitrust*, 133 YALE L. J. 1162 (2023) (arguing that U.S. bank regulation operates as a comprehensive anti-monopoly

effectively, as demonstrated by the recurring litigation against Visa and Mastercard.[266]

The credibility of monetary commitments issued by non-banking entities is another significant issue stemming from the privatization of the payment system. Non-banking entities that issue deposits operate without the stringent oversight and regulatory framework that applies to traditional banks. Consequently, their monetary commitments lack the credibility and assurance provided by federally insured bank deposits.

Dan Awrey recently outlined a legal framework that could address the problem, suggesting a federal payments charter monitored by an existing bank regulator like the Federal Reserve or the Office of the Comptroller of the Currency.[267] By bringing MTBs under the same regulatory umbrella as traditional banks, the Federal Reserve could ensure that these entities adhere to similar standards of accountability and stability, thereby reinforcing the credibility of their monetary commitments.[268]

However, the implementation of such a framework remains uncertain considering the vexed constitutional question of whether Congress the power to charter, regulate, and supervise MTBs. Constitutionally, as Awrey notes, there is simply no clear and consistent basis for federal supremacy over monetary affairs.[269] The Constitution did not explicitly give Congress the power to regulate money other than gold and silver coins. Congress derived its authority to regulate money from a series of Supreme Court cases, which nevertheless limit that authority to banks.[270]

There are no legal barriers to the ability of Congress to extend that authority further and authorize the Fed to issue a digital dollar as the central bank's liability and CBDC. A digital dollar would serve as a monetary anchor, ensuring par convertibility, preserving the status of a dollar as a unit of account, and giving the Fed greater control over the payments system. If the Federal Reserve were assigned the responsibility of developing the payment infrastructure for the digital dollar, it would have

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regime, designed to prevent excessive concentration of private power over the supply and allocation of money and credit in a democratic economy).

266. *See* discussion *supra* Section II.A.

267. Awrey, *supra* note 25.

268. *Id.*

269. *Id.*

270. *Id.*

more influence in determining the pricing structure associated with the use of that system.

A digital dollar would also eliminate the problem of credibility, which can be restated as a problem of par convertibility. If there is a risk that a consumer will not be able to convert their deposits into cash, this means that the conversions are below par. The Federal Reserve could eliminate it by implementing a digital dollar, which would be its liability, not a liability of the payment firm. Unlike such a firm, the Federal Reserve cannot default. While this does not negate the need for federal oversight of payment firms, it makes digital dollars safer for the public.

B. *Implementing a Digital Dollar: A Centralized Architecture*

How should the Fed go about the implementation of a digital dollar? An analogy with physical dollar might be instructive. Traditionally, the Federal Reserve has held a distinct role in overseeing the issuance of currency, a responsibility primarily carried out by banks, with the Fed maintaining comprehensive regulatory control over the process.[271] This strategy was aimed at maintaining the delicate balance of power between public regulatory authorities and private actors, ensuring that the financial system continues to serve the broader economic interests of society.[272] As Menand has noted, historically, the Fed tried to maintain such a balance by cultivating powerful stakeholders.

> Delegation [of money issuance] took root and developed in the Anglo-American legal system during moments of state formation: in the 1690s, following the Glorious Revolution; in the 1780s and 90s, following the American Revolution; and in the 1860s, amidst the Civil War. During each of these moments, the state sought assistance from wealthy citizens. By offering these citizens a say in economic governance, as well as a steady stream of rents, state gave them a reason to support it.[273]

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271. *See* Lev Menand, *The Logic and Limits of the Federal Reserve Act*, 40 YALE J. ON REG. 197, 213 (2023).
272. *Id.*
273. *Id.*

In this context, it is somewhat surprising to see Menand, together with Crawford and Ricks, argue in their influential article for a digital dollar architecture in the form of "FedAccounts."[274] In their view, the exclusive access of depositary institutions[275] to accounts at the Federal Reserve is not warranted and instead should be open to all U.S. citizens, residents, businesses and institutions.[276] Accordingly, they propose "FedAccounts" or dollar balances issued by the central bank and maintained as digital ledger entries.[277] FedAccounts would use the centralized ledger systems that the Federal Reserve has successfully employed for decades for financial institutions.[278] They envisage FedAccount system being integrated with the existing payment infrastructure, ensuring interoperability and ease of use.[279] As they note, this integration would allow for seamless transfers between FedAccounts and traditional bank accounts, enhancing the overall efficiency of the payment system.[280] Furthermore:

> FedAccounts would offer all the functionality of ordinary bank transaction accounts, except for overdraft coverage. They would come with debit cards for point-of-sale payments and ATM access. They would support direct deposit and online bill pay. Account holders could access their accounts on the internet or through a mobile phone application. Monthly statements would be supplied by email (preferably) or in hard copy. There would be a customer service number.[281]

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274. Crawford, Menand & Ricks, *supra* note 27.

275. As they note:

> In addition to U.S. depository institutions, *see* 12 U.S.C. § 342, the Fed is authorized to maintain accounts for the United States Treasury, *see id.* § 391, certain government-sponsored enterprises in the residential mortgage area, *see id.* §§ 1435, 1452(d), 1723a(g), foreign governments, banks, and central banks, *id.* §§ 347d, 358, certain international organizations, such as the International Monetary Fund and the World Bank, *see* 22 U.S.C. § 286d, and designated financial market utilities, *see* 12 U.S.C. § 5465, as well as assorted other governmental and government-sponsored entities.

Id. at 116 n.10.

276. *Id.* at 116.

277. *Id.* at 122.

278. *Id.* at 118.

279. *Id.*

280. *Id.* at 154.

281. *Id.* at 116–17.

There would be certain other features distinguishing FedAccounts from standard bank accounts. First, fees would be minimal or zero.[282] Second, FedAccounts would pay the same interest on balances that commercial banks receive on their balances.[283] Third, payments would clear in real time, just like interbank payments.[284] Fourth, there would be no interchange fees.[285] Fifth, since FedAccounts would be liabilities of the central banks, there would be no possibility of default.[286]

While this proposed architecture aligns with many objectives set out by CBDC projects—particularly consumer protection, improved payment systems, interoperability, and financial inclusion—it overlooks the practical necessity of securing acceptance from private actors, whose interests must be considered. This oversight is evident in the institutional implications of the proposal. As Crawford, Menand, and Ricks acknowledge, the widespread adoption of FedAccounts would have profound implications for the Federal Reserve's balance sheet but also that of commercial banks.[287]

A simplified description of the impact is as follows. Initially, banks' balance sheets would shrink as their deposit liabilities and reserve assets decline as a result of the migration of deposits from commercial banks to the Federal Reserve. Although the Fed's balance sheet would remain unchanged in the first stage, as assets stay the same and liabilities shift from banks to non-banks, subsequent stages would see the Fed's balance sheet expand. Banks, needing to replace lost deposits, would borrow from the Fed, increasing the Fed's assets as loans are extended to banks. In the final stage, the Federal Reserve could replace these loans with other types of assets, such as Treasury securities or other investments, balancing safety and liquidity considerations.

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282. *Id.* at 122 ("FedAccount fees would be minimal or zero. There would be no minimum balances or other policies that exclude the currently unbanked. Applicants would not be screened based on credit scores or similar metrics. No one would be denied an account based on profitability considerations.").

283. *Id.*

284. *Id.* at 122–23.

285. *Id.* at 123 ("To the fullest extent possible, the central bank would decline to receive interchange fees in connection with debit card payments. This would reduce or eliminate an implicit tax on retailers and consumers,").

286. *Id.* ("FedAccount balances would be fully sovereign base money, just like reserve balances that commercial banks hold. There would be no possibility of default on balances of any size. Deposit insurance would be superfluous.").

287. *Id.* at 142.

The institutional impact of FedAccounts would be monumental. Even under the assumption that the Federal Reserve can effectively manage the expansion of its balance sheet and the nature of its investment assets in this context,[288] the utility of a digital dollar still hinges on its acceptance by private actors, who have vested reliance interests in the current financial system. The transition to a FedAccount system must consider the potential resistance from commercial banks and other financial institutions, whose business models and profitability could be adversely affected.[289] This shift could lead to a reduction in the customer base and revenue streams for private banks, potentially destabilizing some institutions, especially smaller community banks that rely heavily on retail deposits.[290] The competitive dynamics between FedAccounts and private banks would need to be carefully monitored and managed but the FedAccounts proposal does not discuss how this would be achieved.

Beyond this fundamental reservation, there are also practical objections. The main one is that the Federal Reserve does not have experience managing retail accounts. Traditionally, the Fed's role has been to oversee monetary policy and regulate the banking system rather than to engage directly with retail consumers. Managing hundreds of millions of individual and business accounts would require a significant shift in

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288. The availability of sufficient Treasury securities to back the increased liabilities could be a limiting factor, necessitating a careful balance between maintaining liquidity and ensuring the safety of its investment portfolio. *Id.* at 145.

289. Under this system, banks are no longer intermediaries between those who have money (depositors) and those that need money (firms) but rather become franchisees of the state. *Id.* at 149. "The central bank would select the 'best' managers according to established criteria." *Id.* While this "franchise" view is evocative of a certain view of the true political economy of the financial system, it is unquestionably radical. *Cf.* Robert Hockett & Saule Omarova, *The Finance Franchise*, CORNELL L. REV. 1143 (2017) (reconceptualizing modern finance as a hybrid public-private franchise); Menand, *supra* note 271, at 203 ("That system [the U.S. monetary system] uses publicly chartered, investor-owned banks to issue most of the money supply. These banks are best conceptualized as public instrumentalities rather than ordinary private businesses.").

290. *See* Ulrich Bindseil, Jürgen Schaaf & Piero Cipollone, *Digital Euro: Debunking Banks' Fears about Losing Deposits*, THE ECB BLOG (Feb. 19, 2024), www.ecb.europa.eu/press/blog/date/2024/html/ecb.blog20240219~cb1e8320e.en.html. In the case of a digital euro, the combination of the reverse waterfall, a holding limit and no remuneration would strongly reduce incentives to keep large amounts of money in a digital euro wallet. *Id.*

operational focus and infrastructure. The Fed would need to develop robust customer service capabilities, cybersecurity measures, and account management systems to handle the volume and complexity of retail banking operations. This transition could pose substantial logistical and technical challenges, potentially leading to inefficiencies and service disruptions during the initial phases of implementation.

Crawford, Menand, and Ricks argue that various governmental entities already interface directly with the public, implying that the Federal Reserve could similarly adapt.[291] However, this comparison offers limited reassurance. The scope and scale of managing retail payment accounts are vastly different from the typical interactions between the public and most governmental entities. Retail payment systems process millions of transactions daily, requiring instantaneous verification, authorization, and settlement. Unlike government services, which often involve batch processing, scheduled disbursements, or periodic reporting, payment systems must operate continuously with minimal latency. The Federal Reserve's venture into retail banking would represent an unprecedented expansion of its role, demanding a level of operational agility and customer engagement that is not currently within its purview.

Privacy is another significant concern associated with FedAccounts. Centralized management of retail accounts by the Federal Reserve raises questions about data privacy and government surveillance. Concerns around these issues help explain why CBDC have become entangled with culture wars in recent years.[292] Consumers, in their political capacity as citizens, may be wary of government access to detailed information about their

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291. Crawford, Menand & Ricks, *supra* note 27 at 161 ("Notably, the U.S. Treasury Department processes over one billion payments per year and disburses benefits to millions of Social Security and pension recipients each month. The U.S. Treasury Department also settles claims resulting from forged, lost, and stolen benefit checks and collects monies from parties liable for fraud. Following the botched roll out of healthcare.gov, the Executive Office of the President set up the U.S. Digital Service ("USDS"), which recruits top technologists for term-limited tours of duty in the federal government. USDS has dramatically improved direct services in areas ranging from the Education Department's $1 trillion student loan program to the Department of Homeland Security's immigration program.").

292. Siddharth Venkataramakrishnan, *How Digital Cash Got Caught up in the Culture Wars*, Fin. Times (Sep. 6, 2023) www.ft.com/content/ab8fbe73-34bf-4624-b394-97f995551f7a.

financial transactions, fearing potential misuse or overreach.[293] Ensuring robust privacy protections and transparent governance mechanisms would be crucial to gaining public trust and the ultimate acceptance of FedAccounts.[294] The challenge lies in balancing the need for effective regulation and oversight with the protection of individual privacy rights. While the Federal Reserve is subject to the Privacy Act of 1974,[295] the fundamental issue remains: Widespread skepticism among potential users regarding the government's role, regardless of formal privacy protections.

The issue of money laundering and financial crime is also relevant. Crawford, Menand and Ricks claim that FedAccounts

293. The Canada Convoy Protest, a significant event in early 2022, has underscored various socio-political and financial dynamics that are pertinent to the discussion of CBDC. This protest, characterized by widespread demonstrations against COVID-19 mandates, not only highlighted the power of grassroots mobilization but also exposed vulnerabilities in financial and payment systems, particularly in the context of regulatory control and financial inclusion. One of the most salient aspects of the Canada Convoy Protest was the Canadian government's decision to invoke emergency powers, which included the ability to freeze bank accounts and financial assets of individuals and organizations associated with the protest. Ian Austen & Vjosa Isai, *Court Finds Trudeau Overreached by Using Emergency Law to End Blockade*, N.Y. Times (Jan. 23, 2024), www.nytimes.com/2024/01/23/world/canada-/trudeau-emergencies-act-trucker-convoy.html. This action was intended to curtail the protest by cutting off its financial support. The use of such measures drew significant attention to the power and reach of financial institutions and the government in controlling and monitoring financial transactions. *Id.* In the context of CBDCs, this episode raises important questions about financial sovereignty and the balance of power between the state and individuals. A CBDC, being a digital form of fiat currency issued by the central bank, would potentially offer even greater control and monitoring capabilities to the state. While CBDCs could enhance the efficiency and security of payment systems, they could also lead to increased governmental oversight and control over individual financial activities.

294. The freezing of accounts during the protest also sparked debates about financial privacy and the potential for abuse of power. With CBDCs, all transactions could be traceable and monitored in real-time by the central bank or other regulatory authorities. This level of transparency, while beneficial for preventing illegal activities and ensuring compliance with financial regulations, could also infringe on individual privacy rights. The protest highlighted the delicate balance that needs to be struck between ensuring security and maintaining privacy in the financial system. *See* Magdalena Brewczyńska & Eleni Kosta, *From the Fight Against Money Laundering and Financing of Terrorism Towards the Fight for Fundamental Rights: The Role of Data Protection*, *in* Data protection and privacy, Vol. 15: In Transitional Times 157-183 (Hideyuki Matsumi et al. eds., 2023).

295. 5 U.S.C. § 552a; 12 C.F.R. § 261a (2020).

should comply with anti-money laundering (AML) and counter-terrorism financing (CTF) regulations and while they expect an external provider to be responsible initially, they envisage the Fed developing its own capabilities over time.[296] While the Fed has experience in regulatory oversight, directly managing retail accounts would expose it to new risks and responsibilities in monitoring and preventing illicit activities. Implementing comprehensive AML/CTF protocols would be essential, but it could also introduce complexities and costs that need to be carefully managed to avoid undermining the benefits of FedAccounts.

Thus, while FedAccounts offer promising advantages for consumer protection, improved payment systems, interoperability, and financial inclusion, they would also drastically alter the balance of power in the payment system with unintended consequences, thereby echoing some of the criticism articulated towards CBDCs.[297] The Federal Reserve's lack of experience in managing retail accounts, alternative CBDC models involving private banks, privacy concerns, money laundering risks, and competition with private banks are all also critical factors that need careful consideration.

For these reasons, it is beneficial to consider an alternative digital dollar architecture, which envisages a role for private actors and addresses some of the issues.

C. *Implementing a Digital Dollar: A Decentralized Architecture*

In their article, Crawford, Menand and Ricks juxtapose FedAccounts against token-based CBDC.[298] But an account-based CBDC model where private banks manage accounts rather than tokens could also exist. The alternative model to the centralized CBDC in the form of FedAccounts is a decentralized model, in which the central bank issues digital dollars while the digital dollars accounts are maintained by private financial institutions. This approach leverages the existing expertise and infrastructure of private banks in managing retail accounts, potentially mitigating some of the operational challenges the Fed would face. Moreover, it would allow the central bank to

296. Crawford, Menand & Ricks, *supra* note 27 at 162.
297. *See, e.g.,* Zelmanovitz & Salama, *supra* note 28.
298. Crawford, Menand & Ricks, *supra* note 27 at 150–151.

focus on its core competencies while still ensuring the widespread adoption and use of digital currency, in parallel with physical currency.

The Federal Reserve plays a central role in the issuance and distribution of physical currency. The Bureau of Engraving and Printing (BEP), a part of the U.S. Department of the Treasury, is responsible for printing paper currency.[299] It produces Federal Reserve Notes based on orders from the Federal Reserve. The U.S. Mint, another Treasury entity, manufactures coins.[300] The Federal Reserve submits an annual order to the BEP specifying the quantity of each denomination needed.[301] This order is based on factors such as the expected demand for currency and the replacement of worn or damaged bills.[302] Once printed, the currency is delivered to the Federal Reserve Banks.

These banks hold reserves of currency and distribute cash to depository institutions (commercial banks, credit unions, and savings institutions) within their districts.[303] Reserve Banks provide cash services to depository institutions, including the receipt and verification of deposits, the distribution of new currency, and the destruction of unfit currency.[304] They ensure that depository institutions have access to sufficient cash to meet their customers' needs, especially during periods of high demand, such as holidays. Commercial banks and other financial institutions are key intermediaries in the distribution of cash to the public.[305] They order cash from their regional Federal Reserve Bank based on anticipated customer demand. The Federal Reserve and

299. *See* Franklin Noll, *Lincoln's Greenback Mill: Civil War Financing and the Start of the Bureau of Engraving and Printing, 1861-1863*, 1 FED. HIST. 25 (2009) (for a history of the BEP).

300. *Production Process*, U.S. MINT, www.usmint.gov/learn/production-process (last visited Feb. 13, 2025).

301. BD. OF GOVERNORS OF THE FED. RSRV. SYS., *Federal Reserve Notes*, *in* FINANCIAL ACCOUNTING MANUAL FOR FEDERAL RESERVE BANKS 97, 99 (2025) federalreserve.gov/aboutthefed/chapter-5-federal-reserve-notes.htm ("Each year, the Board places a printing order with the BEP Director based on the estimated need for new currency and inventory requirements").

302. *Id.*

303. *FedCash Services*, FED. RSRV., www.frbservices.org/financial-services/cash (last visited Feb. 13, 2025).

304. *Id.*

305. *Journey to Circulation*, U.S. CURRENCY EDUC. PROGRAM, www.uscurrency.gov/life-cycle/journey-circulation (last visited Aug. 13, 2024).

commercial banks have measures in place to manage cash distribution during emergencies or periods of peak demand.[306]

Much in the same way, the process of issuing a digital dollar would begin with the Federal Reserve creating digital dollars and distributing them to financial institutions. The concern about private deposit migration undercutting funding for banks could be mitigated by this different design choice. A digital dollar structured to be a highly efficient medium of exchange but only a moderately attractive store of value could offer a balanced institutional solution. To ensure that a digital dollar functions primarily as a medium of exchange rather than a store of value, the Fed could impose a cap on individual holdings. This would prevent large-scale migration of deposits from commercial banks into central bank money, thereby preserving the role of private financial institutions in credit creation. The ECB has proposed a similar approach for the digital euro, suggesting caps on individual holdings to prevent excessive disintermediation of the banking sector.[307] A digital dollar could follow a comparable model, limiting the amount that individuals and businesses can hold in CBDC accounts while still allowing widespread use for everyday transactions.

A critical question arises regarding the institutions eligible for the distribution of digital dollars. In particular, the question is whether only depositary institutions or also other types of institutions such as MTBs should be included. The digital dollar architecture proposed here envisions only depository institutions and MTBs being eligible for receiving and distributing digital dollars. By opting for such an architecture, the Federal Reserve would signal its commitment to maintaining the monetary anchor role of central bank money while adapting to the evolving digital payments landscape. By collaborating with both traditional banks and innovative payment firms, the Fed would ensure that the digital dollar complements existing

306. *See, e.g.,* Jeffrey M. Lacker, *Payment System Disruptions and the Federal Reserve Following September 11, 2001* (Fed. Rsrv. Bank of Richmond, Working Paper No. 03-16, Dec. 2003), www.atlantafed.org/-/media/Documents/news/conferences/2008/08-payments-econ-03/epconflacker.pdf (last visited Aug. 13, 2024) (noting that currency in circulation increased by $4.4 billion from Monday to Wednesday after 9/11).

307. Digital Euro Regulation, *supra* note 1, at art. 16. ("[T]he European Central Bank shall develop instruments to limit the use of the digital euro as a store of value and shall decide on their parameters and use, in accordance with the framework set out in this Article.").

payment methods, supports financial stability, and meets the needs of consumers.

Depository institutions and MTBs would thus act as intermediaries, distributing digital dollars to consumers. These institutions would hold digital dollars reserves and facilitate transactions, providing a seamless transition from physical to digital currency. Just as banks now order cash from the Federal Reserve based on anticipated demand, they would similarly request digital dollars to meet the needs of their customers. Importantly, while depository institutions and MTBs could charge interchange fees for payments, these would be determined by the Federal Reserve through administrative decisions.

Consumers would access digital dollars through digital wallets, which would be provided by the depository institutions or MTBs. These digital wallets would function similarly to existing mobile banking apps, allowing users to store, transfer, and spend digital dollars. The integration with existing bank accounts would ensure that consumers can easily convert their digital dollars to traditional bank deposits or withdraw them as physical cash if needed. To ensure widespread accessibility, especially for those without traditional banking relationships, the Federal Reserve might also collaborate with postal services or other public institutions to distribute digital wallets.[308]

Conceivably, the main objection that could be articulated against the digital dollar proposal is the prospect of fragmentation of the payments landscape. Crawford, Menand, and Ricks express the concern that an abundance of payment options would undermine the uptake of a digital dollar and limit its utility.[309] Furthermore, they argue that any effort to limit the size of the CBDC in the face of high demand could make it difficult or impossible for the Federal Reserve to maintain par convertibility between the CBDC and currency.[310]

These objections do not seem entirely persuasive. The concern about fragmentation posits that introducing a digital dollar would add another option to an already diverse array of payment methods, potentially diluting the adoption of any single system. However, this objection overlooks the inherent

308. This approach is akin to some proposals for the digital euro, where the ECB has considered leveraging post offices and other public entities to enhance accessibility.

309. Crawford, Menand & Ricks, *supra* note 27, at 154.

310. *Id.*

benefits of a diverse payments landscape. The availability of multiple payment options can drive innovation, improve consumer choice, and enhance competition among service providers. Rather than undermining uptake, a well-designed digital dollar can complement existing options, providing a secure, efficient, and government-backed alternative that could naturally gain traction based on its merits.

The digital dollar proposal is based on the conviction that the *adoption* of a digital dollar should be driven by organic public preference, rooted in the perceived benefits it offers.[311] If the public recognizes the advantages of a digital dollar—such as lower transaction costs and security—its adoption will naturally increase. The role of the Federal Reserve in promoting and maintaining a digital dollar should focus on ensuring these benefits are realized and clearly communicated to the public. An organic preference for a digital dollar, developed through demonstrated utility and trust, will be more sustainable than enforced adoption through regulatory mandates.

The issue of maintaining par convertibility between digital dollars and cash is another concern. Crawford, Menand, and Ricks argue that high demand for CBDCs could challenge the Federal Reserve's ability to ensure one-to-one convertibility. However, this concern appears overstated. The Federal Reserve would have the unique capacity to manage the money supply, including the issuance and redemption of digital dollars. By leveraging its monetary tools and regulatory authority, the Fed can ensure that digital dollar remain at par with traditional dollars. Moreover, the flexibility to print additional currency if necessary provides a mechanism to address any potential imbalances.

Conclusion

In this Article, I argued that the erosion of the monetary anchor function of public money poses a tangible risk to the payments system. The contemporary financial landscape—characterized by the dominance of private payment firms and the proliferation of non-bank financial intermediaries—has created regulatory gaps that threaten the par convertibility. Without adequate safeguards, these developments could

311. This should be distinguished from the monetary anchor argument in favor of the issuance of a digital dollar.

weaken confidence in private monetary instruments, disrupt payment flows, and undermine the Federal Reserve's capacity to manage the economy through monetary policy.

A digital dollar, designed as a central bank liability, represents a viable institutional response to these challenges. By ensuring par convertibility between private and public money, a digital dollar could reinforce the credibility of private deposits, enhance the efficiency of payment systems, and restore the Federal Reserve's role as the primary steward of monetary stability. However, the success of such a policy initiative hinges on careful institutional design.

A centralized CBDC model, such as FedAccounts, may disrupt the existing financial ecosystem by displacing traditional banks and altering the competitive dynamics of the financial sector. Conversely, a decentralized architecture, in which private banks and fintech firms facilitate the distribution of digital dollars, may provide a more balanced approach. This intermediated model would allow the Federal Reserve to maintain its critical role in monetary stability while leveraging private sector expertise in retail financial services.

The Article acknowledges that a CBDC is not a panacea; rather, it is one tool among many that policymakers must consider in addressing the evolving challenges of the modern financial system. Complementary regulatory reforms, enhanced oversight of fintech firms, and potential expansions of federal deposit insurance may also play a role in preserving confidence in private money. However, given the historical precedent for central bank intervention in payment systems, a digital dollar stands as a logical—if politically contentious—extension of the Federal Reserve's mandate.