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Exploring the Possibilities and Risks of New Payment Technologies

Remarks by

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Thank you for the opportunity to speak to you today.

Payments innovation is accelerating.¹ Stablecoins, artificial intelligence (AI), real-time payments, and richer payment metadata offer significant improvements to the cost, speed, and functionality of payments. Better payments functionality can help financial institutions and businesses manage liquidity more efficiently at lower cost. It can also mean that people receive their paychecks more promptly and manage their payments more effectively. Payments innovation is especially important for lower-income individuals who are often underserved by the financial system and lack financial slack.

For the bulk of my remarks today, I will focus on the benefits and risks of stablecoins. Congress has recently passed legislation that provides some clarity to issuers of stablecoins about how they can fit into the regulatory and supervisory framework. While there is a lot of work to do on the part of the government to fill in the specifics during the rule-writing process, increased certainty could lead to more rapid development of stablecoins and related products and services for businesses and households.

Potential Benefits of Stablecoins

I will start with some of the potential benefits of stablecoins. The primary benefit comes from the ledger itself, which can operate globally and encode functionality and conditionality directly into assets and transactions. This functionality unlocks a range of new financial use cases that were previously impractical when transactions required updating a series of ledgers spread across individual financial institutions.

¹ The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board of the Federal Open Market Committee.

The global nature of stablecoins is fundamental to their usefulness in parts of the payment system that have high friction, such as cross-border payments. Some of these frictions are necessary and important, such as those associated with complying with relevant laws and regulations on money laundering and terrorist financing. But removing or mitigating other frictions may reduce costs and facilitate more efficient transactions.

While today stablecoins are mostly used to facilitate crypto-trading activities, and secondarily as a dollar-denominated store of value in some foreign jurisdictions, I want to provide some examples where stablecoins may be useful for additional functions in cross-border payments.

Remittances

Stablecoins can be used to reduce the costs of remittances, since it tends to be more expensive to send remittances to jurisdictions with less-developed domestic payment systems.² As of a few years ago, stablecoins had only a limited ability to reduce costs because there were meaningful fees associated with on-ramping into stablecoins and off-ramping out to local currencies. However, stablecoin acceptance networks have arisen in some corridors that help reduce these fees and offer the potential to reduce the cost and increase the speed of remittances for those least able to bear these costs.

Trade finance

Stablecoins have the potential to also improve the speed of managing the paperwork and processes inherent in global trade and trade finance, perhaps with the use of smart contracts. In these applications, a digitally native form of payment could

² See Viktors Stebunovs (2025), “Clean Money, High Costs?” International Finance Discussion Papers 1422 (Washington: Board of Governors of the Federal Reserve System, September), <https://doi.org/10.17016/IFDP.2025.1422>.

potentially be used to streamline the tracking and validation process that occurs between financial institutions, shipping companies, and customs warehouses and the companies that engage in trade. Small businesses might see lower costs and greater access.

Multinational firms' cash management

And for larger firms that have entities across the globe, stablecoins may help with treasury management. Stablecoins offer the promise of near-real-time global payments, helping multinational firms manage their cash efficiently between their related entities while still making payments through local internal entities in different countries, reducing costs and improving liquidity.

Risks to Achieving the Benefits of New Payment Technologies

I have mentioned just a few of the potential ways in which stablecoins can provide benefits to households and business. Continued investment in technology can also support compliance with important legal restrictions that prevent the use of the financial system for nefarious purposes. This investment will be a key area necessary for supporting stablecoins in achieving their potential benefits. Let me start with money laundering and terrorist financing.

The potential for technology to support anti-money-laundering compliance

One unique feature of stablecoins is their role as bearer instruments, similar to old-fashioned traveler's checks, but mostly operating on global permissionless networks that can include plenty of users with bad intentions. That creates particular challenges for preventing money laundering and terrorist finance, since bad actors can purchase stablecoins in secondary markets that may not have customer identification requirements. The U.S. puts a heavy premium on ensuring that all financial institutions comply with

rules that seek to prevent criminals and terrorists from using our financial system.

Financial companies, particularly banks, that take shortcuts on anti-money-laundering compliance sooner or later come to regret these shortcuts.

Compliance with Bank Secrecy Act and anti-money-laundering requirements can be very data intensive and costly, requiring significant staffing to identify and then address or resolve flagged issues. Permissioned networks with only trusted nodes doing the know your customer work can reduce the risks. Moreover, new technologies, used with care, can potentially reduce frictions on legitimate payments and speed up the identification of problem payments. AI may be well suited to flag payments that are outliers relative to typical patterns, potentially reducing the volume of false positives and unnecessary filings.³ There may also be ways to improve the explainability of payments if they travel through the payment cycle with more data elements, such as those in the ISO 20022 standards recently implemented on Fedwire. There are also technologies that can aid with stablecoin compliance, such as trusted identity tokens in wallets that satisfy Customer Identification Program requirements and smart contracts that freeze stablecoins in problematic wallets. This suite of tools can also be used for preventing other types of crime, such as fraud.

³ See Jeffrey S. Allen and Max S.S. Hatfield (2025), “Can LLMs Improve Sanctions Screening in the Financial System? Evidence from a Fuzzy Matching Assessment,” Finance and Economics Discussion Series 2025-092 (Washington: Board of Governors of the Federal Reserve System, September), <https://doi.org/10.17016/FEDS.2025.092>; U.S. Department of the Treasury (2024), “Treasury Announces Enhanced Fraud Detection Processes, Including Machine Learning AI, Prevented and Recovered Over \$4 Billion in Fiscal Year 2024,” press release, October 17, <https://home.treasury.gov/news/press-releases/jy2650>.

A Rocky History of Private Money Creation

A second key area is financial stability. Let me take a step back and explain why I am focused on the financial stability risk of stablecoins. Caution is warranted because of the long and painful history of private money created with insufficient safeguards.

The fragility of private money is inherent in the way that it is created. Financial institutions issue liquid liabilities to the public that are redeemable on demand and at par, but issuers risk being ultimately unable to liquidate their assets promptly at par when facing run dynamics and market stress. Maturity and liquidity transformation can have social benefits by meeting the needs of the public for money-like assets and supporting the supply of credit to the real economy. However, for this social benefit to be durable, maturity transformation necessarily requires safeguards that address run risk.⁴

Looking at the long history of runs from private money is a helpful reminder of how these runs can happen and what's at stake when they do. For example, in the 1800s, during the so-called Free Banking Era, the United States had competing forms of private money in the form of bank notes. The value of these notes was tied to the creditworthiness, location, and credibility of the issuing bank, although some of the notes were backed by bonds issued by the state governments as well as other high-quality assets.⁵ Despite these protections, the quality of the guarantees backing the bank notes

⁴ The need for joint capital and liquidity regulation to address excessive run risk at financial institutions is established in Anil Kashyap, Dimitrios P Tsomocos, and Alexandros P. Vardoulakis (2024), "Optimal Bank Regulation in the Presence of Credit and Run Risk," *Journal of Political Economy*, vol. 132 (March), pp. 772–823. How the public provision of safe assets can suppress the demand for private money-like assets and, thus, reduce financial fragility is examined in Mark Carlson, Burcu Duygan-Bump, Fabio Natalucci, Bill Nelson, Marcelo Ochoa, Jeremy Stein, and Skander Van den Heuvel (2016), "The Demand for Short-Term, Safe Assets and Financial Stability: Some Evidence and Implications for Central Bank Policies," *International Journal of Central Banking*, vol. 12 (December), pp. 307–33.

⁵ See, for example, Gary Gorton (1996), "Reputation Formation in Early Bank Note Markets," *Journal of Political Economy*, vol. 104 (April), pp. 346–97.

was not beyond question, and they often traded below par. Concerns about the health of issuing banks, or of the states themselves in this era, resulted in regular bank runs and, in a number of instances, widespread financial panics. This stability of the system was improved over time, such as through legal changes that effectively required bank notes to be backed only by U.S. government securities. Nevertheless, regular episodes of runs continued to materialize until the Panic of 1907, which prominently featured a run on trust companies that offered deposit products backed by assets less liquid than the assets held by banks of the era. This episode led to the creation of the Federal Reserve System.

The historical examples point out that issuing liquid liabilities redeemable at par but backed by assets, even high-quality ones, about which creditors might have questions makes private money vulnerable to run risk. These same dynamics occurred even in much more modern times. The most notable example is when the Reserve Primary Fund broke the buck on September 16, 2008, one day after the bankruptcy of Lehman Brothers, as the assets backing the fund came into question.⁶ Pressures on money market funds also occurred during the onset of the COVID-19 outbreak in March 2020, when institutional prime funds suffered outflows of about 30 percent of their assets under management within a period of two weeks.⁷

These experiences show the vulnerability of private money-like assets to runs, and how these runs can threaten not only the financial sector, but also the broader economy.

⁶ See, for example, Lawrence Schmidt, Allan Timmermann, and Russ Wermers (2016), “Runs on Money Market Mutual Funds,” *American Economic Review*, vol. 106 (September), pp. 2625–57.

⁷ See, for example, Lei Li, Yi Li, Marco Macchiavelli, and Xing Zhou (2021), “Liquidity Restrictions, Runs, and Central Bank Interventions: Evidence from Money Market Funds,” *Review of Financial Studies*, vol. 34 (November), pp. 5402–37.

Issues in the Unregulated Stablecoin Market

The mostly unregulated stablecoin market has also experienced run dynamics in recent times. While people purchasing something called a “stablecoin” might reasonably assume that they can rely on redemption at par on demand, unregulated stablecoins are currently backed by a range of non-cash reserve assets that can make them vulnerable, especially under stressed conditions.⁸ Three key features—redemption on demand, at par, and backed by noncash assets—render stablecoins susceptible to runs similar to fragile banks or money market funds.⁹

Because stablecoins are not backed by deposit insurance and stablecoin issuers do not have access to central bank liquidity, the quality and liquidity of their reserve assets is critical to their long-run viability. At the same time, stablecoin issuers traditionally retain profits from investing reserve assets and therefore have a high incentive to maximize the return on their reserve assets by extending the risk spectrum as far out as possible. Stretching the boundaries of permissible reserve assets can increase profits in good times but risks a crack in confidence during inevitable bouts of market stress. The incentive to reach for yield can grow especially in lower-interest-rate environments. Stablecoins will only be stable if they can be reliably and promptly redeemed at par in a range of conditions, including during stress in the market that can put pressure on the value of even otherwise liquid government debt, and during episodes of strain on the individual issuer or its related entities.

⁸ See Yuegi Yang, Muyao Shen, and Jason Leopold (2023), “Biggest Crypto Stablecoin Tether Was Once Backed by Chinese Securities,” Bloomberg, June 16; [Scott Chipolina] (2023), “Crypto Group Circle Admits \$3.3bn Exposure to Failed Silicon Valley Bank,” *Financial Times*, March 11.

⁹ See, for example, Gary B. Gorton, Elizabeth C. Klee, Chase P. Ross, Sharon Y. Ross, and Alexandros P. Vardoulakis (2025), “Leverage and Stablecoin Pegs,” *Journal of Financial and Quantitative Analysis*.

Permissible Stablecoin Reserves under the New Legal Framework

To address these vulnerabilities in the largely unregulated stablecoin market, Congress passed the bipartisan GENIUS Act. The act's primary tool to mitigate the risk of runs is limiting permissible reserve assets to an itemized list of highly liquid assets.¹⁰ This is a significant improvement in an area where reserve assets for stablecoins have been highly varied. Tight control over reserve assets, coupled with supervision, capital and liquidity requirements, and other measures, could enhance the stability of stablecoins and make them a more viable payment instruments over the long term.

But success in accomplishing these goals will depend on the details of regulatory implementation. The GENIUS Act provides a helpful statutory framework, but it will be up to both the federal banking agencies and the states to coordinate and develop a comprehensive set of rules that can fill in important gaps and ensure that there are robust guardrails to protect users of stablecoins and mitigate broader risks to the financial system. Regulators have a lot of work to do to implement the act, and I will outline several areas that will require close attention.

For example, some of the enumerated reserve assets backing stablecoins are not immune to stress. Permissible reserve assets include uninsured deposits, which were a key risk factor during the March 2023 banking stress.¹¹ While the GENIUS Act permits regulators to limit the concentration of reserve assets in uninsured deposits, it will matter how these rules are written.¹²

¹⁰ See 12 U.S.C. § 5903(a)(1)(A).

¹¹ See 12 U.S.C. § 5903(a)(1)(A)(ii); Michael S. Barr (2023), "The Importance of Effective Liquidity Risk Management," speech delivered at the ECB Forum on Banking Supervision, Frankfurt, Germany, December 1, <https://www.federalreserve.gov/newsevents/speech/barr20231201a.htm>.

¹² See 12 U.S.C. § 5903(a)(1)(A)(ii), (a)(4)(A)(iii).

Additionally, in connection with overnight repo, the act permits any medium of exchange authorized or adopted by a foreign government to be held as a reserve asset—a category that could include potentially volatile assets.¹³ For example, until quite recently, El Salvador treated Bitcoin as legal tender, and it still specifically permits Bitcoin to be used for transactions on a voluntary basis. As a result, an issuer could argue that Bitcoin repo could qualify as an eligible reserve asset for a stablecoin. In a case of stress experienced by the issuer or counterparty, or if Bitcoin were to drop sharply in value, a stablecoin issuer could be stuck holding the Bitcoin that had declined in value, potentially compromising the one-to-one backing of the stablecoin liabilities. To the extent possible, regulations should be put in place to eliminate or minimize such risks.¹⁴

In addition to the potential vulnerabilities of some permitted reserves, other aspects of the GENIUS Act might permit risks to develop unless carefully regulated. The act permits four federal agencies and agencies in each state and territory to serve as the primary regulator and supervisor of stablecoin issuers.¹⁵ As a result, there might be a great deal of heterogeneity in the regulatory frameworks that apply to permitted issuers, despite controls in the act intended to provide that the frameworks are substantially similar. The resulting array of charter choice options, unless carefully managed, may provide incentives for regulatory arbitrage.

For example, the act permits federal and state regulators to authorize stablecoin issuers to engage in a broad range of “digital asset service provider” and “incidental”

¹³ See 12 U.S.C. § 5903(a)(1)(A)(iv) (permitting “money” received under repurchase agreements with an overnight maturity to be held as a reserve asset); 12 U.S.C. § 5901(18) (defining money to include “a medium of exchange currently authorized or adopted by a domestic or foreign government”).

¹⁴ See, for example, 12 U.S.C. § 5903(a)(4)(A)(iii).

¹⁵ See 12 U.S.C. § 5901(25) (defining “primary Federal payment stablecoin regulator”); 12 U.S.C. § 5901(30) (defining “State payment stablecoin regulator”).

activities other than stablecoin issuance, including potentially acting as a crypto-asset exchange or broker-dealer.¹⁶ Issuers are likely to seek to stretch these activities limitations. In fact, issuers may argue that they are permitted under the act to perform the full range of activities conducted by FTX, provided they make the relevant representations and conduct appropriate accounting. Unless state and federal agencies carefully coordinate, this could result in some state or federal regulators permitting a range of activities that might expose stablecoin issuers to increased risk.

The potentially broad set of permissible activities could raise heightened concerns in cases where stablecoin issuers are subsidiaries or affiliates of banks.¹⁷ In such cases, the risks of expanded activities could affect the banking organization and the banking system more broadly. These risks are especially elevated because the GENIUS Act carves stablecoin issuers that are part of banking organizations out of bank and bank holding company consolidated capital requirements—even if they conduct a broad range of activities that pose risks that are greater than and different from those associated with stablecoin issuance.¹⁸ Stablecoin issuers are only subject to the capital requirements implemented under the act, which could end up being too narrow to cover the risks of

¹⁶ See 12 U.S.C. § 5903(a)(7)(B) (setting out a rule of construction permitting primary regulators to authorize stablecoin issuers to engage in digital asset service provider and “incidental” activities); 12 U.S.C. § 5901(7)(A) (listing “digital asset service provider” activities).

¹⁷ Among other things, an expanded scope of activities could create issues in the insolvency context. While the GENIUS Act amends the Bankruptcy Code to segregate stablecoin reserve assets for the benefit of stablecoin holders, many issuers are likely to be subject to resolution by the federal or state regulators that charter such institutions. Particularly where issuers are engaged in a broad range of activities, it is not clear how stablecoin reserves will be segregated from the issuer’s other assets under those insolvency frameworks. See 12 U.S.C. 5910(a)(1) (the only provision of the GENIUS Act’s insolvency provisions that applies to insolvency frameworks other than the Bankruptcy Code). Federal and state regulators administering resolution regimes could provide more clarity through rulemaking.

¹⁸ See 12 U.S.C. § 5903(a)(4)(B)(iii).

expanded activities.¹⁹ Thus, appropriate capital requirements are another area where coordination among federal and state regulators is key—and it may be facilitated by the GENIUS Act’s framework for assessing that state requirements are “substantially similar” to federal requirements.²⁰

Relatedly, the act enables stablecoin issuers—including those that may conduct an expanded range of activities—to be chartered by regulators as uninsured national or state-chartered trust banks.²¹ This authorization and related decisions by regulators may result in trust banks that engage in a broader range of non-fiduciary, non-custodial, principal activities. Let us not forget a lesson hard-learned in the Panic of 1907—a lighter-weight regulatory framework for trust-chartered entities conducting bank-like activities can create opportunities for regulatory arbitrage and vulnerabilities for the financial system. Overall, these and other gaps may have implications for the safety and soundness of stablecoin issuers.

Consumer Protection Issues

The act also has gaps relating to consumer protection. For example, it does not apply to all instruments that are commonly referred to as “stablecoins,” and certain dollar-denominated, tokenized products can continue to be offered and sold without being subject to the regulatory framework under the act.²² This risks creating confusion and could result in consumers relying on payment instruments that they believe are regulated,

¹⁹ See 12 U.S.C. § 5903(a)(4)(A)(i)(II) (providing, among other things, that capital requirements for stablecoin issuers shall “not exceed requirements that are sufficient to ensure the ongoing operations” of the issuer).

²⁰ See 12 U.S.C. § 5903(c).

²¹ See 12 U.S.C. § 5901(11)(B), (31)(A).

²² The act limits only the issuance, offer, and sale of “payment stablecoins.” See 12 U.S.C. § 5901(22) (defining “payment stablecoin”); 12 U.S.C. § 5902(a)–(b) (prohibitions on issuing, offering, or selling “payment stablecoins”). The act does not affect the issuance, offer, or sale of instruments that fall outside the “payment stablecoin.”

but for which there are no prudential protections of any kind. To mitigate this risk, federal and state regulators should work together to prevent misrepresentations, including through their authority to prohibit unfair and deceptive acts and practices.²³

The act also lacks sufficient protections to prevent the mixing of bank-like activities and commerce, which could lead to an increase of economic concentration and create competitive distortions—potentially to the detriment of consumers.²⁴ And, finally, the act does not provide consumers with the fraud protections applicable to traditional payment instruments—including protection for unauthorized transfers.

Alternative adaptations of payment technologies: Tokenized deposits

I have talked extensively about how the potential benefits of stablecoins can only be achieved if stablecoins can be reliably redeemed at par under a wide range of conditions. Importantly, the technology that supports stablecoins can also be used for other products—for example, tokenized deposits.

The benefits of tokenized deposits include that they are part of a regulatory framework that has been tested over time. Banks face robust regulatory and supervisory regimes proportional to their size and complexity. This supervision and regulation is paired with deposit insurance, providing confidence that deposits held in sizes relevant for most retail purposes will be available on demand at par. The resolution regime is orderly, which provides additional confidence about the stability of the instruments in a wide range of circumstances and reduces contagion. Moreover, banks have ready access

²³ See, for example, 12 U.S.C. § 5903(e)(3), which makes it “unlawful to market a product in the United States as a payment stablecoin unless the product is issued pursuant to the [act].”

²⁴ See 12 U.S.C. § 5903(a)(12) (preventing only *majority* ownership of stablecoin issuers by a *public*, nonfinancial company, and providing for possible exceptions to that requirement); 12 U.S.C. § 5903(a)(8) (preventing tying only with respect to paid products and services offered by a payment stablecoin issuer and its subsidiaries, and not with respect to products and services offered by a payment stablecoin issuer’s affiliates, including their parent companies).

to the discount window, where they can readily monetize assets on their balance sheets at a pre-specified interest rate under a range of market conditions, including the most dire. I don't want to say this system is perfect—it definitely is not—but it is far more robust than what we have developed so far for stablecoins. Thus, it may make sense for both market participants and regulators to consider how tokenized deposits will fit into this ecosystem.

As I said at the outset, stablecoins have the potential to improve the efficiency of the payment system, particularly in cross-border applications. For stablecoins to reach their potential, additional work is needed to create guardrails that protect households and businesses, and the financial system as a whole. While the GENIUS Act made important progress in creating a framework for stablecoins, a great deal will depend on how federal and state regulators implement it. If the regulatory framework provides strong guardrails and consumer protections, both the innovation represented by stablecoins as payment instruments, and the resulting competition in the payments space, could help foster payments improvements that benefit households and businesses.

Thank you.