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Executive Summary

The GENIUS Act, recently signed into law, establishes a dual federal and state regulatory framework for stablecoins, a new tech-driven financial product, effectively segmenting the USD stablecoin market into GENIUS-compliant stablecoins and those that are not. This paper first discusses the use cases and potential benefits of stablecoins in terms of payment system efficiency and costs. It then analyzes the financial stability risks associated with both GENIUS-compliant and unregulated stablecoins using historical analysis and case studies. This assessment is supported by a new Andersen Institute survey of expert opinions canvassed through Large Language Model (LLM) analysis of U.S. podcast episodes on stablecoins.

Our survey of expert opinions suggests that stablecoins hold the promise of revolutionizing the domestic and international USD payment system by lowering transaction costs, shortening settlement times, providing continuous 24/7 payment system access, and possibly improving financial inclusion. In particular, for banks and other financial institutions, stablecoins could make wholesale settlement more efficient and allow for real-time collateral management. For nonfinancial businesses, stablecoin payments could reduce interchange fees and improve payables and receivables management. With their relatively low barriers to entry, stablecoins could improve financial inclusion in traditionally underbanked communities, if combined with the expansion of internet access.

At the same time, our survey of experts and case studies suggest that stablecoins may pose significant financial stability risks if the market grows as large as currently predicted, especially if such scale is achieved in a short period of time. The new regulatory framework introduced by the GENIUS Act, with specific design features aimed at

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addressing some inherent vulnerabilities, has the potential to ameliorate some of the financial stability risks (relative to noncompliant stablecoins), but does not eliminate them.

GENIUS-compliant stablecoins are expected to be relatively safe instruments. They are intended for payments, are not supposed to pay any interest, and can be issued and held globally. GENIUS-compliant stablecoin issuers are restricted to borrowing in repo markets only for specific reasons, mostly related to meeting liquidity needs. However, they are not federally insured and do not have access to a public liquidity backstop. As a result, they remain runnable to the extent to which their reserve assets are not perfectly safe and liquid. As the market develops, they are likely to become more deeply interconnected with the crypto and traditional financial systems, raising additional important financial stability concerns.

Surveys and available data indicate that stablecoins so far have been primarily used to facilitate cryptocurrency market activities, which are inherently volatile and speculative, rather than as a payment tool. Existing evidence of a leverage buildup within crypto markets suggests that a shock would transmit more easily to traditional financial markets and institutions.

Other factors may contribute to an increase in financial stability risks associated with GENIUS-compliant stablecoins. One is related to the provision of automatic, seamless conversion of non-interest bearing stablecoins into tokenized yield-bearing products, which are then used to fuel the growth of digital lending built on private digital money. A second concern is the issuance of GENIUS-compliant stablecoins by nonbank entities (allowed under the GENIUS Act) that could contribute to increased competitive pressures on banks, especially if the scope of stablecoins expand beyond just payment functionality.

By contrast, GENIUS-noncompliant stablecoins are much riskier instruments. They invest in less liquid reserve assets and potentially employ leverage. Evidence from the 2022-23 bank runs in the United States and historical lessons from the U.S. era of free banking in the 19th century suggest that stablecoins runs have the potential to occur at higher frequency, at faster speed, and at larger scale.

Unregulated stablecoins are popular cryptocurrencies for illicit finance and have been used to avoid sanctions or fund terrorism. However, all varieties of stablecoins are likely to continue to support cryptocurrency market activity, exacerbating existing operational, cyber, and fraud risks.

A multi-trillion dollar GENIUS-compliant stablecoin market would bring a number of structural market changes with it. Stablecoins will affect the structure, pricing, and functioning of financial markets; they will also deepen the interconnection between the crypto ecosystem and traditional markets and financial institutions. The impact will depend not only on the speed of growth, but also on the source of demand. If stablecoin

market growth comes from a decline in currency in circulation, all eligible reserve assets under the GENIUS act will benefit, without risks to bank intermediation. However, if the reallocation comes primarily from bank deposits, then banks facing large outflows may cut their long-term securities holdings or issue fewer loans, with smaller banks likely facing greater disintermediation risk. Larger banks may also respond by repricing deposits more aggressively or by developing their own stablecoins to stave off competition. Reallocation from MMFs may not significantly impact financial markets, in particular the T-bill market, given the similar portfolio composition of MMFs and GENIUS-compliant stablecoin reserves. Demand for GENIUS-compliant stablecoins may also come from abroad, creating new indirect demand for U.S. dollar-denominated reserve assets, potentially supporting the U.S. dollar.

Finally, our survey of experts sees the impact of stablecoin market development as neutral on the U.S. dollar's status as the international reserve currency. On the one hand, a cheaper and faster means of payments for international trade, financial flows, and remittances should foster demand for the U.S. assets backing GENIUS-compliant or noncompliant stablecoins pegged to the dollar. On the other hand, widespread international adoption of multiple privately issued dollar stablecoins with varying degrees of credibility would weaken the network effects associated with the fiat dollar and likely result in a more fragmented USD payment system.

Stablecoins and Recent Market Developments

A stablecoin is a cryptocurrency – a virtual currency living encrypted on decentralized networks that serve as ledgers – promising to maintain a constant value against a reference asset. These reference assets can be fiat currencies, commodities, or even other cryptocurrencies. However, even prior to the GENIUS Act, the largest segment of the global stablecoin market was pegged to the U.S. dollar (USD stablecoins). GENIUS-compliant stablecoins not only must peg to the dollar, but also must satisfy a set of regulatory requirements, including being backed by designated U.S. dollar-denominated assets. Some USD stablecoins currently in circulation are not fully backed by U.S. dollar-denominated assets and hold cryptocurrencies or commodities as reserves. Yet other USD stablecoins are effectively unbacked and try to maintain their peg by algorithmically managing the token supply.

Issuers, market size, and projected growth

USD stablecoins gained early traction from the need for a stable medium of exchange within the volatile crypto ecosystem (Gorton and Zhang, 2023). As of August 2025, the total market capitalization of USD stablecoins had grown more than 35 percent since January 2025 to $270 billion (Figure 1, left-panel). The USD stablecoin supply currently

in circulation is highly concentrated, with just two issuers, Circle and Tether, responsible for over 85 percent of the total. The stablecoin market is expected to grow further, with estimates ranging from $500 billion to a multi-trillion dollar market by 2030. According to Visa, stablecoin transactions are growing rapidly too, with turnover exceeding $700 billion in May 2025, up from about $400 billion one year ago.

USD stablecoin market capitalization ($B)

Number of podcast episodes YTD (daily)
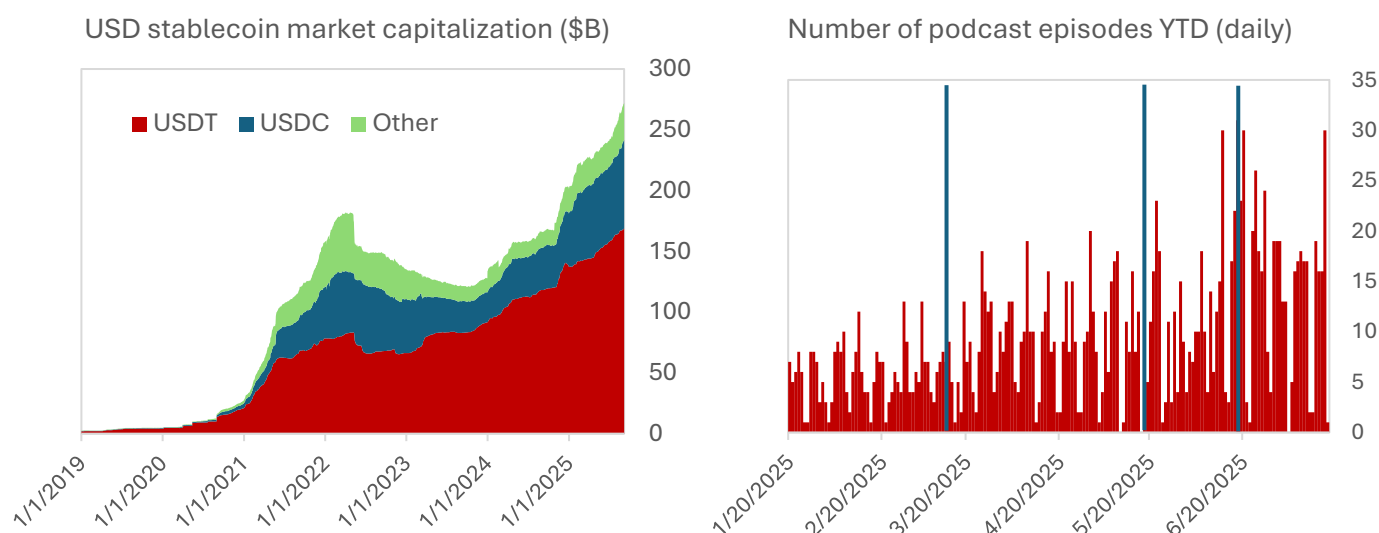
Figure 1. The left-panel plots the market capitalization of USD-pegged stablecoins. USDT and USDC are the tickers of stablecoins issued by Tether and Circle, respectively. 'Other' includes ten other USD stablecoins (TUSD, BUSD, FDUSD, PYUSD, RLUSD, DAI, FRAX, UST, USDE, USDS). The right-panel plots the daily number of stablecoin themed podcast episodes released in the United States in English from January 20 to July 17, 2025. The three vertical lines refer to Senate committee approval on March 13, Senate invoking cloture for the GENIUS Act on May 19, and Senate approval on June 17. Source: CoinMarketCap and Listen Notes (www.listennotes.com, see Appendix A for details).

As the outstanding supply of USD stablecoins continued to rise in 2025, so has regulator and media interest in these instruments. For example, the frequency of stablecoin-themed podcast episodes has significantly increased since January 2025 (Figure 1, right-panel).[2] Podcasters' interest in stablecoins is particularly informative because podcasts are a relatively new medium of communication that has grown rapidly in both supply and demand alongside the emergence and spread of cryptocurrencies. Both podcast activity and crypto market capitalization rose to all-time highs in terms of impact and attention during the 2024 presidential electoral campaign and in the run-up to the January 20, 2025 inauguration.

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[2] See Appendix A for details on how all reported survey data have been generated. One important caveat about the survey results is that they cannot distinguish between GENIUS-compliant and noncompliant stablecoins as the sample period ends on July 17, 2025. Appendix B reports all survey results not reported in the main text.

The rapid growth of the sector, unique technological innovation and strong regulator interest in providing a framework for stablecoins culminated with the Senate's passing of the GENIUS Act on June 17, 2025, and then the House's passing vote on July 17. The GENIUS Act requires any USD stablecoin issued in the United States to be fully backed by U.S. dollar assets. Foreign-issued stablecoins like Tether's USDT, the largest stablecoin in circulation, which pegs to the U.S. dollar but is partly backed by cryptocurrencies, commodities or non-USD assets as reserves, are not GENIUS-compliant but can continue to circulate and operate as offshore stablecoins.[3] Crypto-backed, commodity-backed, and algorithmic stablecoins, which make up roughly $20 to $30 billion of the total USD stablecoin global market capitalization, remain unregulated and cannot be issued in the U.S. according to the GENIUS Act. However, they can continue to be held and circulate within the U.S. and globally.

In general, USD stablecoin issuers accept fiat dollars and issue non-interest bearing USD stablecoin token liabilities through a process called minting. A select set of primary market participants are authorized to mint and redeem stablecoins at par directly with the issuer. These participants act as arbitrageurs between primary and secondary markets to maintain the stablecoin peg (Lyons and Viswanath-Natraj, 2023). The number of authorized participants varies across stablecoin issuers, and this may lead to differences in price efficiency and volatility across stablecoins (Ma et al., 2025). Other participants rely on secondary markets to buy and sell stablecoins, and the price they pay or receive depends on supply and demand and may deviate from the peg price (slightly below or above $1, for example). Secondary markets include centralized exchanges like Coinbase, decentralized exchanges like Uniswap (Watsky et al., 2024), or markets for peer-to-peer transactions. In the case of exchanges, users' wallets are held on exchange, while stablecoin wallets could be held off exchange for peer-to-peer transactions.

In accordance with the GENIUS Act, stablecoin issuers invest the U.S. dollars they receive in short-term, high-quality, liquid assets (HQLA) such as U.S. Treasury bills (T-bills), reverse repos, and bank deposits, with no standardized allocation requirements. This contrasts with European stablecoin regulation under Markets in Crypto Assets Regulation (MiCA) that requires issuers to hold a large fraction of reserves in bank deposits. The GENIUS Act also prohibits USD stablecoins from paying interest directly to holders, although market participants have already found workarounds by indirectly offering interest by other names through exchanges or third party platforms.[4] GENIUS-

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[3] Tether USA has recently announced that it will launch a GENIUS-compliant stablecoin, USAT, to be issued within the U.S. that will circulate separately from USDT.
[4] Some crypto exchanges offer interest or rewards for holding stablecoins with them, while some DeFi protocols pay interest on stablecoins that holders deposit into the protocol. There is also a growing number of yield-bearing stablecoins. Most yield-bearing stablecoin issuers are not domiciled in the U.S., while those in the U.S. are typically structured as tokenized money market funds and regulated by the SEC as securities.

compliant issuers' business model is simple and profitable, earning interest on the reserve portfolios without paying interest on their token liabilities. Other stablecoin issuers' business model (and that of GENIUS-compliant ones engaging in indirect rewarding of holders) will earn a spread between the return on their reserves and their cost of funds.

Stablecoin reserves

Figure 2 compares the reserves composition of four major USD stablecoins in circulation: Tether (USDT), Circle (USDC), First Digital (FDUSD), and PayPal Coin (PYUSD). The latter three are GENIUS-compliant. Circle is a U.S.-domiciled issuer with reserves consisting exclusively of GENIUS-compliant assets. Meanwhile, Tether is the largest issuer globally, is not U.S.-domiciled, and holds a significant share of reserves in non-HQLA.[5] All four issuers hold small amounts of cash and bank deposits to meet regular and immediate redemptions. The largest reserve assets backing Tether and First Digital are T-bills, while Circle is backed by a larger portion of reverse repos. To date, PayPal Coin holds no T-bills and is almost fully backed by reverse repos. Tether also holds $6.6 billion of precious metals, $7.6 billion of bitcoin, and some corporate bonds and non-U.S. sovereign debt.
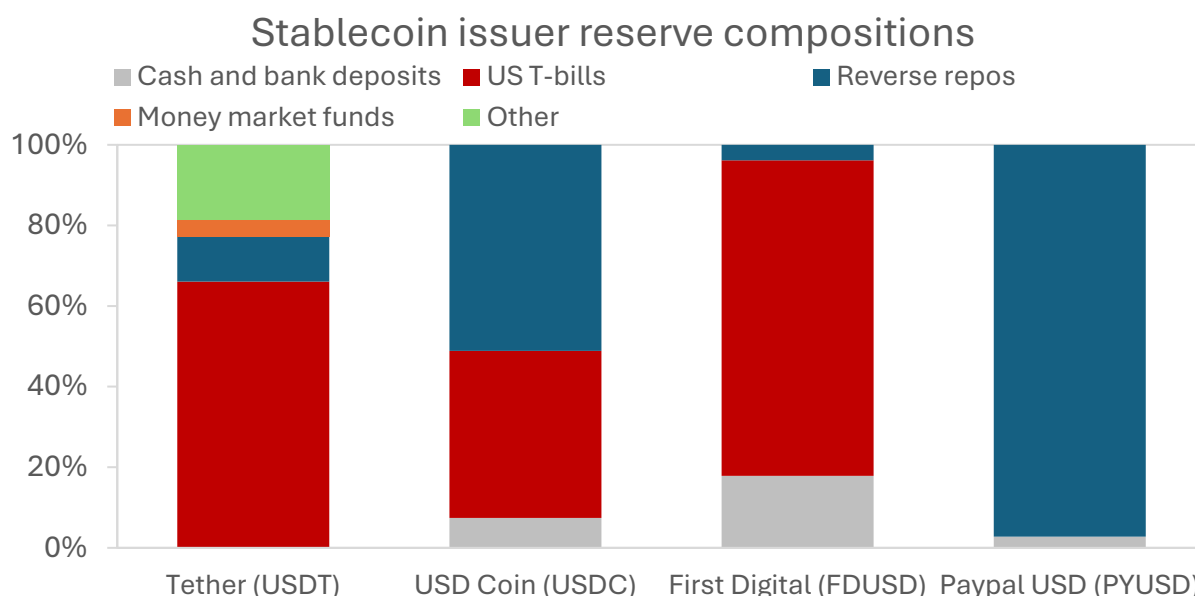
Figure 2. Reserve compositions of select USD stablecoin issuers. Source: stablecoin issuer reserve reports for Tether (March 2025), Circle (April 2025), First Digital (May 2025), PayPal Coin (April 2025).

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[5] Tether (USDT) is headquartered in the British Virgin Islands, and in January 2025 announced plans to move the headquarters and subsidiaries to El Salvador. Tether also recently announced its intention to invest in gold mining companies.

Consistent with the data, the results from our expert survey in Figure 3 suggest that U.S. Treasury securities are by far the most discussed reserve asset, followed by cash, deposits and money market mutual funds (MMFs), and then also cryptocurrencies and commodities.

Each reserve asset class poses some challenges or risks. Deposits and MMFs expose issuers to liquidity risk. Moreover, deposits held by issuers are likely too large to be covered by FDIC insurance, exposing issuers to credit risk. Reverse repo lending is subject to some, albeit small, counterparty credit risk. Even T-bills, arguably the world's safest asset, carry some interest rate risk and liquidity risk especially during periods of market dislocation. For GENIUS-noncompliant stablecoins, holding risky assets such as cryptocurrencies or commodities expose the issuer to additional risks such as market risk. Other assets can expose the issuer to foreign exchange risk if the securities are not dollar-denominated.

Top stablecoin reserve assets - podcast mentions
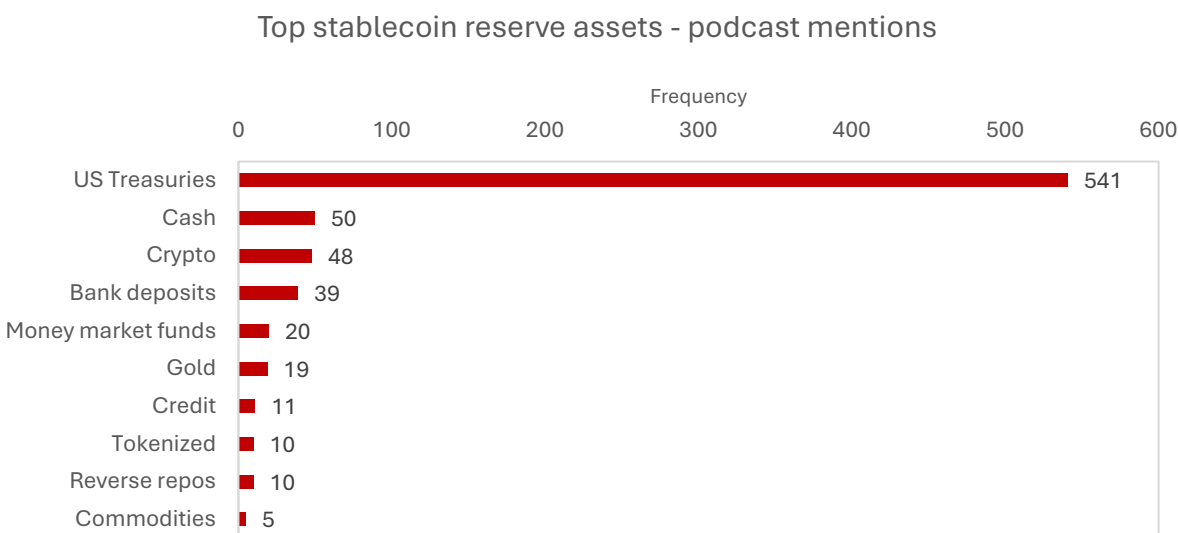
Figure 3: This table plots the absolute frequency of podcast speaker mentions of stablecoin reserve assets. The total frequency is 802. The question asked to the LLM model is: "*Which assets does the speaker mention the most in the episode as stablecoin reserves or to back stablecoins? (e.g., bank deposits, money market funds (MMFs), reverse repos, treasury bills, non-liquid assets, or other assets not listed*.)" See Appendix A and B for additional details, including the total number of answers for each question. Source: Listen Notes and authors' calculations.

Stablecoins, bank deposits, and money market funds

Barring their digital nature, USD stablecoins are often compared to bank deposits and tokenized MMFs because of their shared characteristics of means of payment and liquid store of value. All three instruments represent a promise to redeem at a par value of $1. However, their function in the current U.S. payment system and their risk-return profiles differ. This is captured by our podcast survey of experts, according to which stablecoins

are perceived as neither substitutes nor as complements to bank deposits and as somewhat substitutable with MMFs.

Under the GENIUS Act, like depositors, stablecoin holders are legally viewed as creditors with a priority claim on the reserve assets of the issuer, to be held in a segregated account. However, in the event of a default, it is unclear whether stablecoin holders have recourse to assets held outside the segregated account that reflect reinvested earnings of stablecoin issuers. This contrasts with the treatment of depositors, who have claims on all assets of the bank including those reflecting the reinvestment of retained earnings. By contrast, shareholders in MMFs are considered equity holders in the funds. Moreover, neither stablecoins nor deposits are considered securities, while MMFs are and must be registered with the SEC.

Unlike GENIUS-compliant stablecoin issuers, banks' maturity transformation entails that deposits are backed by long-term assets and securities. By contrast, stablecoin issuers, like MMFs, will invest in short-term HQLA. Still, there are important differences between the investment portfolios of GENIUS-compliant stablecoin issuers and U.S. MMFs. Government MMFs also invest in agency debt and municipal debt which are not eligible reserve assets under the GENIUS Act, while prime MMFs can invest in riskier securities such as commercial paper.[6] MMFs may invest in securities with maturities up to 397 calendar days, while the GENIUS Act limits stablecoin reserves to securities with maturities up to 93 days.

The geographical distribution of GENIUS-compliant stablecoin issuance is more like that of deposits and differs significantly from that of MMFs. U.S. banks can set up foreign office branches and collect deposits abroad under local regulations. However, unlike bank deposits, circulating stablecoins can also be fungible across jurisdictions. Meanwhile, U.S. MMFs usually issue shares only within the United States.

Lastly but crucially, stablecoin issuers do not pass the interest earned on reserve assets to their holders, while MMF's pass on nearly all of it, net of fees. Banks sit in the middle, typically paying depositors interest rates below market-based money market rates. Banks, however, also issue a sizable quantity of non-interest bearing deposits, which are very similar to stablecoins in this respect. Over 20 percent of domestic deposits currently outstanding, or $3.8 trillion, are non-interest bearing. Another $11 trillion of interest-bearing deposits are *non-maturity* or *sight* deposits (e.g., checking, savings, and money market deposit accounts), which pay interest rates very close to zero.[7]

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[6] As of July 2025, the largest U.S. government MMF ran by Fidelity has roughly 25 percent of its portfolio invested in agency securities.

[7] As of August 2025, national average non-maturity deposit rates were 0.39 percent (savings), 0.07 percent (checking), 0.59 percent (money market deposit), compared to T-bill rates and MMF yields of above 4 percent.

The degree to which an asset is interest bearing will determine the potential sources of the demand for GENIUS-compliant stablecoins in the long term and over economic and interest rate cycles. As discussed in detail below, Figure 8 shows that like non-interest bearing deposits and non-maturity deposits, the quantity of stablecoins outstanding declines when interest rates rise and *vice versa*, as the opportunity cost of holding non-interest bearing instruments increases with interest rates. This relationship holds despite the various ways stablecoins can indirectly earn interest and suggests that most stablecoins are held and perform as non-interest bearing instruments. Conversely, demand for MMFs increases with interest rates, thus behaving in the opposite manner.

The GENIUS Act

The GENIUS Act establishes the regulatory and supervisory framework for stablecoins and a class of firms designated as "permitted stablecoin issuers." This framework provides for federal oversight of stablecoin issuers meeting specific criteria and state oversight of smaller stablecoin issuers.

Permitted stablecoin issuers

The Act establishes three types of "permitted stablecoin issuers": subsidiaries of insured depository institutions, federal qualified stablecoin issuers, and state qualified stablecoin issuers. Federal qualified stablecoin issuers include entities such as uninsured national banks (typically trust banks that do not issue deposits), federal branches of foreign banks that are authorized by the Office of the Comptroller of the Currency (OCC) to issue stablecoins, and non-banks. State qualified stablecoin issuers are entities that are not federally regulated banking institutions and that are licensed by a state stablecoin regulator.

Stablecoin issuers that are subsidiaries of insured depository institutions are regulated by the appropriate federal banking agency.[8] All federal qualified stablecoin issuers are regulated by the OCC. State qualified stablecoin issuers are regulated by the state stablecoin regulatory agency. State qualified issuers must have assets less than $10 billion, and the state stablecoin regulatory regime must be approved by the Stablecoin Certification Review Committee (SCRC) as "substantially similar" to the federal regulatory regime. The SCRC is chaired by the Secretary of the Treasury and includes the Chair of the Federal Reserve Board (or the Vice Chair for Supervision) and the Chair of the FDIC.

Risk management and regulatory oversight

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[8] These include the OCC for subsidiaries of national banks, the FDIC for subsidiaries of state-chartered banks that are not members of the Federal Reserve System (FRS), the Federal Reserve for subsidiaries of state-chartered banks that are members of the FRS, and the NCUA for subsidiaries of credit unions.

The GENIUS Act mandates regulators of federal and state qualified stablecoin issuers to establish appropriate standards for capital, reserve asset diversification, and operational risk management. Federal and state stablecoin regulators are directed to examine stablecoin issuers to assess the condition of issuers and a range of potential risks, including operational and cyber risks. All stablecoin issuers are considered financial institutions subject to the Bank Secrecy Act and related anti-money laundering requirements.

Stablecoin issuers must hold high quality liquid assets in amounts at least equal to the amount of their outstanding stablecoins. Allowable assets include T-bills, overnight Treasury reverse repurchase agreements, money obtained under repurchase agreements, and demand deposits at insured depository institutions. Stablecoin issuers are not allowed to pledge or rehypothecate their reserve assets except when necessary to meet specified liquidity needs. Stablecoin issuers are required to publish monthly information on the quantity of stablecoins outstanding and the amount and composition of reserve assets held. Large stablecoin issuers (those with outstanding stablecoin issuance exceeding $50 billion) are required to produce annual audited financial statements.

The Act addresses operational, cyber, and illicit finance risks at two levels. The regulators are supposed to develop rules that (among other things) establish operational, compliance, and information-technology risk-management requirements. The supervisors must also examine issuers to assess the operational, technological, and other risks that could threaten (i) the issuer's safety and soundness or (ii) U.S. financial stability; and (iii) the systems for monitoring and controlling those risks. In short, the Act combines *ex ante* standards with ongoing examinations to manage operations, cyber, and anti-money laundering risks.

Other provisions

Stablecoin issuers may only issue and redeem payment stablecoins, manage related reserves, provide custodial or safekeeping services for payment stablecoins, and engage in other activities that directly support any of the foregoing activities. Payment stablecoins are defined in the Act as a digital asset serving as a means of payment or settlement and for which the issuer promises a fixed redemption amount and represents that the stablecoin will have a stable monetary value.

Stablecoin issuers may not pay interest on stablecoins "in cash, tokens, or other considerations." The GENIUS Act provides specifically that stablecoins are not to be treated as securities or commodities and stablecoin issuers are not to be treated as investment companies. However, the Act does not prevent third parties such as exchanges and decentralized finance (DeFi) platforms from offering rewards or interest on stablecoins or instant convertibility to tokenized MMFs that carry a return, thereby introducing a loophole. Additionally, current U.S. IRS directives implicitly treat GENIUS-compliant stablecoins as properties with important implication for their adoption as means of payment (Box 1).

The GENIUS Act does not provide any form of public liquidity backstop for nonbank stablecoin issuers. The Act specifies that stablecoins are not backed by the full faith and credit of the United States and are not eligible for insurance through the FDIC or the National Credit Union Administration or for any other government guarantee. Stablecoin issuers may not misrepresent their uninsured status. In bankruptcy proceedings, holders

of stablecoins have a priority claim on the reserve assets of a failed stablecoin issuer, but not necessarily on the interest paid on these reserves.

Foreign and non-financial issuers

Under the GENIUS Act, foreign stablecoin issuers are not permitted unless the Secretary of the Treasury determines that their home regulatory regime is comparable to the that of the U.S. and a number of other conditions are met, including reserve requirements at U.S. financial institutions and anti-money laundering compliance. After a period of transition, U.S. exchanges may also list and trade only coins from permitted domestic issuers or qualifying foreign issuers. However, wallets may continue to hold GENIUS-noncompliant stablecoins and non-U.S. exchanges and some DeFi protocols may continue to offer them.[9]

The GENIUS Act prohibits public nonfinancial companies that are not predominantly engaged in one or more financial activities from issuing a payment stablecoin unless they have been unanimously approved by a vote of the SCRC (public companies are defined as those required to file reports under the Securities Exchange Act). The SCRC must find that the proposed issuer would not pose a material risk to the safety and soundness of the U.S. banking system, the financial stability of the U.S., or the Deposit Insurance Fund. In addition, the SCRC must find that the public company will comply with data use limitations and will comply with tying prohibitions that apply for stablecoin issuers. The limitations under these provisions could apply to a wide range of large technology firms and many other types of public firms as well. This provision does not apply to privately-held nonfinancial firms.

Experts' perceptions of regulation

Regulation is the most frequent theme or issue associated with stablecoins in our podcast survey of experts. Perceptions about stablecoin regulation in our survey of experts are neutral, on average (Figure 4, left-panel). Over the sample period, these views have evolved from perceiving regulation as somewhat restrictive to a more neutral perception (Figure 4, right-panel). Much of the shift occurred once the GENIUS Act legislative process picked up in May and improved further after the Senate vote.[10]

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[9] This means that Tether's USDT as currently circulating may remain in U.S. wallets. For example, in the EU, USDT does not comply with MiCA and it has been delisted by EU exchanges but remains in circulation and could still be held in EU-domiciled wallets.

[10] See Hofmann et al. (2025) for a similar analysis of regulatory sentiment about central bank digital currencies.
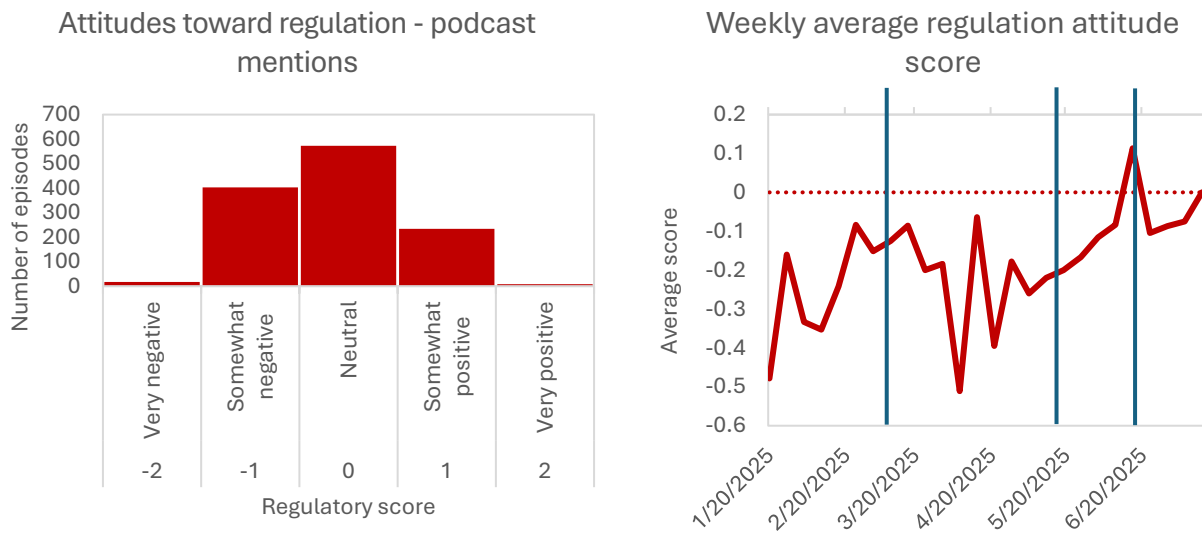
Figure 4: The left-panel figure plots the absolute frequency of podcast speakers' attitudes toward stablecoin regulation. The total frequency is 1,235. The right-panel plots the weekly average over time. The three vertical lines refer to Senate committee approval on March 13, Senate invoking cloture for the GENIUS Act on May 19, and Senate approval on June 17. The question asked to the LLM Model is "*How does the speaker view the U.S. regulatory posture for stablecoins (i.e., the posture of the relevant U.S. regulatory bodies and the U.S. Congress committees) at the time of speaking? Use the following scale: -2, -1, 0, +1, +2, for strongly restrictive, somewhat restrictive, neutral, somewhat permissive, strongly permissive, respectively.*" See Appendix A and B for additional details. Source: Listen Notes and authors' calculations.

Box 2. Stablecoins: A Prelude to a New and Stable "Free Banking Era"?

Stablecoins can be seen as a form of private "money." This box places stablecoins, a new and upcoming form of private money in the historical context of the evolution of banks and money in the United States over the period from the revolutionary war onward, as Congress exercised its constitutional powers to "coin money and regulate the value thereof."

Important developments related to the issuance of paper money or banknotes have often occurred under the pressure of wartime finance. As shown in the first row of Table 1, the Continental Congress issued paper money, "Continentals", to help finance the revolutionary war. The currency was backed only by future tax revenues and quickly devalued relative to gold. The next two rows of the table note the first and second banks of the United States; these were early attempts to establish the equivalent of a U.S. central bank. Molded on the structure of the Bank of England, these two institutions were chartered by Congress, subject to Congressional oversight, and served as fiscal agents

for the U.S. Treasury, but were privately owned albeit with the federal government retaining an important ownership share. The banknotes issued by both banks were widely used and stable. But both banks were politically controversial and eventually their charters were not renewed.

In the so-called "free banking era" that followed, commercial banks were chartered by states, and many issued their own banknotes. All states maintained a range of requirements for banks to collateralize their notes, but many proved ineffective; fraud was widespread, and the system was fragmented - banknotes of one bank were often not accepted by other banks outside the local area; bank failures were widespread. Even some nonbanks were allowed to issue currency-like liabilities in some states. For example, railroads issued notes to fund construction projects, and other smaller companies such as the New Hope Delaware Bridge Company were allowed to issue notes as well. Both the railroad and bridge company notes were used as currency.

In contrast to many other states, Louisiana took important steps during this period to strengthen its banking system. The state passed a law in 1842 that essentially created "narrow banks" - banks that could only hold specie and very short-term money market instruments as assets backing their banknotes (The Louisiana Banking Act of February 5, 1842). Moreover, summarized financial statements for these banks were published on a weekly basis. Some of these features became a model for later developments and banks in Louisiana weathered financial panics better than in many other states.

Spurred importantly by the financial difficulties associated with the Civil War, the National Banking Acts of 1863 and 1864 sought to strengthen the safety and soundness of the banking system and support federal finances in the process. The Acts established a new class of banks, chartered by the federal government and supervised by a new federal agency, the Office of the Comptroller of the Currency. Under the new supervisory regime, national banks were regularly examined and submitted detailed reports of their financial condition on a quarterly basis. National banks were private institutions providing a full range of banking services. However, they were required to back their banknotes with purchases of Treasury bonds and the note holders had a priority claim on these assets. In effect, national banks embedded a "narrow bank" structure as a type of subsidiary for the purpose of issuing banknotes. Seignorage associated with national banknotes largely remained with the private banks although national banks paid a tax of one-half percentage point on their banknotes outstanding. Banknote issuance by state banks was strongly discouraged by prohibitive taxes on their notes.

Instrument	Oversight	Reporting	Model	Bank Notes Security	Structure	Seignorage	Issues
Continental Notes	Congress	NA	Debt obligation	Future Taxes	Debt obligation	Government	Inflation
First National Bank of U.S.	Congress/ Treasury	Annual	Full Service Bank	Assets/Specie redemption	Private w/ govt. stake	Owners+ Government share	Political controversy
Second National Bank of U.S.	Congress/ Treasury	Annual	Full Service Bank	Assets/Specie redemption	Private w/ govt. stake	Owners+ Government share	Political controversy
Free Banks (Banknotes)	State Regulator	Annual	(Generally) Full Service Bank	Collateral (varies)	Private	Owners	Fraud, Fragmented banknotes
Louisiana Banking Act (1842)	State Regulator	Annual and Condensed Weekly	Narrow Bank	Specie+ Short Paper	Private	Owners	
National Bank Era (Banknotes)	Federal Regulator/ OCC	Quarterly	Full Service Bank	Govt. Bonds	Private	Owners but 1/2 pp tax	Inelastic currency
Federal Reserve (FR Notes)	Congress	Weekly Public	Narrow Bank	Full faith and credit+ Collateral+Legal tender	Public/ Quasi Public	Treasury	Govt. monopoly
Genius Act (Stablecoins)	Federal/OCC State Regulators	Monthly Public	Narrow Bank+ Nonbank	Reserve assets, Bankruptcy priority	Private	Owners	

Table 1. Historical examples of private and public money in the United States.

Eventually, the narrow bank structure of the national bank's "subsidiary" issuing banknotes became a defining element of today's structure of the Federal Reserve balance sheet. Federal Reserve assets are generally limited to safe and liquid instruments. And all Federal Reserve notes are mandated as obligations of the United States backed by safe and liquid assets. The Federal Reserve is required to publish detailed information on its balance sheet weekly. Seignorage from Federal Reserve notes flows back to the U.S. Treasury.

Stablecoin issuance as established by the GENIUS Act shares many features with these historical antecedents. The transparency requirements and the mandated framework for supervision and regulation under the GENIUS Act echoes aspects of the framework for national banks in the national banking era. The narrow bank concept pioneered by the state of Louisiana in the free banking era and incorporated in the structure of the Federal Reserve is the critical element imposed on the issuers of GENIUS-compliant stablecoins. Bucking the trend in shifting "money" oversight responsibilities over time from the state to the federal level, the GENIUS Act reintroduces state-level oversight of smaller stablecoin issuers. Moreover, just as in the free banking era, the seignorage profits from stablecoin issuance remain entirely with the private issuers. That privilege is reinforced by executive orders and legislative proposals that restrict the Federal Reserve from issuing a competing central bank digital currency (CBDC). An additional aspect of the GENIUS Act that echoes the free banking era is the possibility of nonbank financial and nonfinancial institutions becoming permitted stablecoin issuers. Finally, although stablecoins were not developed under the pressures of wartime finance, the possibility that stablecoin issuers could become an important source of demand for Treasury securities has not gone unnoticed by the current Administration.

The author of Box 2 is James Clouse.

Use Cases and Potential Benefits

The most frequently mentioned use cases in our podcast survey of experts are listed in Figure 5. Stablecoins are seen as financial infrastructure or a settlement technology, as a medium of exchange for crypto trading, a domestic or international means of payment, a store of value, a medium for DeFi, and as tools to address financial inclusion and the needs of the underbanked.

Payments and financial infrastructure

Stablecoins as a settlement layer or means of payment could enable faster and cheaper transactions through the use of blockchain and smart contract technology.[11] In contrast to the existing two-tiered payment system, stablecoin payments can settle on-chain directly between digital wallets without relying on central bank or interbank settlement (Benigno, 2025). For businesses, accepting stablecoin payments in lieu of credit cards could lower costs by significantly reducing interchange fees. Increased settlement speeds mean businesses could also reduce the lag between time of sale and the money received from the sale. Among banking institutions, stablecoins could enable faster and more efficient wholesale settlements and real-time collateral management, but unlike CBDCs, final settlement may still require reliable off ramps to convert stablecoins to legal tender.

An obstacle to stablecoin payments is the inherent irreversibility of blockchain transactions. Transaction reversals (e.g., refunds) are commonplace in online commerce. Consequently, settlement speed gains may be eroded if, as a smart contract solution, funds were to be escrowed for a period over which a blockchain transaction can be cancelled or reversed.

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[11] Smart contracts are self-executing programs that automate the actions required in a blockchain transaction.

Top functions of stablecoins - podcast mentions

Frequency

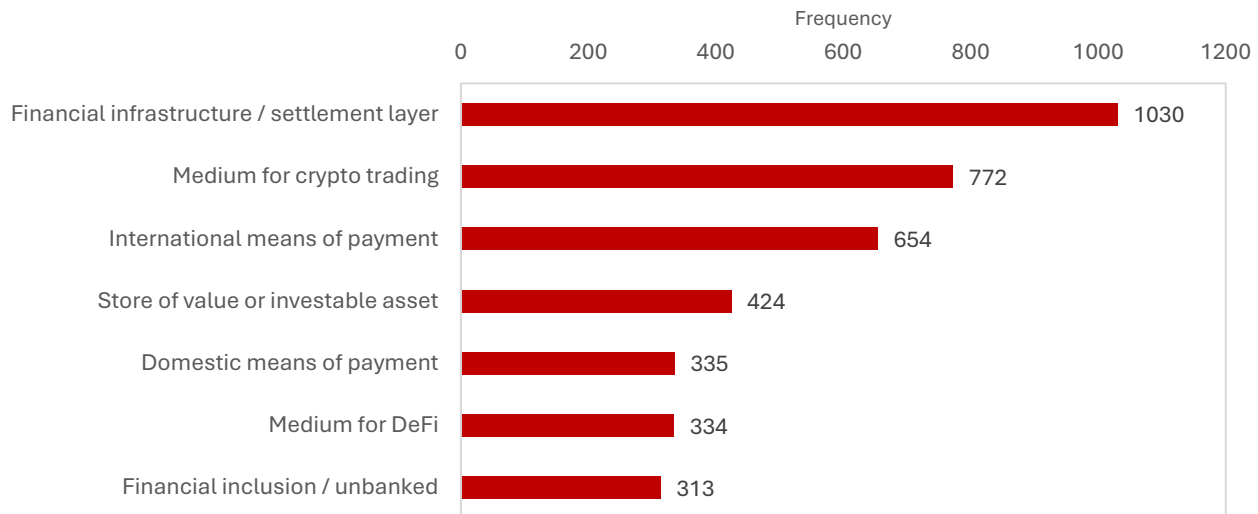| Function	Frequency
Financial infrastructure / settlement layer	1030
Medium for crypto trading	772
International means of payment	654
Store of value or investable asset	424
Domestic means of payment	335
Medium for DeFi	334
Financial inclusion / unbanked	313

Figure 5: The figure plots the absolute frequency of podcast speaker mentions of stablecoin use cases. The total frequency is 3,862. The question asked to the LLM Model is: "*According to the speaker, what are the stablecoins' main use cases or economic functions? Select all applicable use cases or functions from the list provided, or add others not explicitly listed: domestic means of payment, international means of payment, store of value, financial infrastructure, medium for DeFi, medium for crypto trading, other (please specify).*" See Appendix A and B for additional details. Source: Listen Notes and authors' calculations.

Stablecoins may also bring efficiency gains to international payments and remittances. The cross-border payments market is large and expected to grow further in the coming years. The global value of retail payment transactions is expected to increase by $200 to $320 trillion by 2032 (Cerutti et al., 2025). Yet, retail cross-border payments can be slow and are expensive, often requiring transaction fees in excess of 3 percent before considering foreign exchange rate transaction costs, that themselves have not declined over time. Stablecoins have the potential to reduce cross-border intermediation fees and provide 24/7 payment system access. Consistent with an important international role for stablecoins, our surveyed experts mention non-U.S. holders of USD stablecoins more frequently than U.S. holders (Appendix Figure A4).

Facilitating cryptocurrency activity

To date, stablecoins are most often used as a medium of exchange for trading cryptocurrencies. Many crypto exchanges quote cryptocurrency prices in stablecoins instead of dollars (MacDonald and Zhao, 2022). For leveraged crypto trading, stablecoins usually come with the lowest margin requirements among collateral assets (Gorton et al., 2025). Stablecoins also bring some degree of stability to volatile cryptocurrency markets without requiring traders to convert capital back and forth from legal tender. Stablecoins

also serve as one of the primary sources of funding for on-chain decentralized lending platforms that operate autonomously via smart contract technology.[12] Users can lend stablecoins on these platforms to earn interest, or they can borrow cryptocurrency-denominated loans by posting stablecoins and other cryptocurrencies as collateral.

A tool for financial inclusion

Advocates claim that stablecoins may increase financial inclusion because barriers to holding stablecoins may be lower than those to holding U.S. dollars in bank deposits. Stablecoin payments are made electronically and just an internet connection is required to secure a digital wallet for stablecoins and cryptocurrencies. Unlike bank accounts or payment apps, non-custodial wallets typically do not require identification or Know Your Customer (KYC) verification, although the regulatory landscape is evolving.[13] Moreover, stablecoin transactions can occur between any two parties with digital wallets residing on the same blockchain, potentially creating a wider network of participants than the closed networks on payment apps. Like other forms of mobile money, stablecoins may therefore help to bring financial services to historically underserved and underbanked communities (Brunnermeier et al., 2023).

However, stablecoins do not yet provide other clear advantages over other electronic mobile payment methods, while potentially exposing the unbanked to additional fraud and cybersecurity risks, and requiring higher financial literacy. Nonetheless, internationally, USD stablecoins have already seen some success in jurisdictions with large underbanked populations, such as Nigeria, where internet infrastructure does not hamper adoption.

Store of value and investable asset

If stablecoins eventually become popular vehicles to earn interest like tokenized MMFs, they could grow into an asset with a role in dollarized payment and financial systems as an additional dollar-denominated asset.

USD stablecoins may be a less costly and more portable store of value than physical cash, as storing and transporting large quantities of physical dollars is expensive and risky. This function, like cash holdings of large-denomination notes, has proven particularly appealing outside the United States. In fact, only about 24 percent of USD stablecoin cross-border flows involve the United States as either the sender or receiver (Auer et al., 2025). Other estimates suggest that a large fraction - roughly 80 percent - of self-custodied digital wallets transacting in USD stablecoins are held outside the United States as of 2024, with the Latin America and Africa regions responsible for

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[12] According to DeFi Llama, DeFi protocols have roughly $150 billion in total value locked as of August 2025.

[13] MetaMask and Phantom are examples of popular non-custodial wallets.

disproportionately high transaction volumes relative to GDP (Reuter, 2025). Consequently, like other cryptocurrencies and cash, USD stablecoins have a well-defined use case as a global store of value in dollarized economies and as an underground medium of exchange. They have also been flagged as suitable for circumventing capital account restrictions (Von Luckner et al., 2023). In line with this, as already noted, our survey of experts mentions non-U.S. holders of USD stablecoins more frequently than U.S. holders.

International role of the U.S. dollar

Stablecoins are seen as both possibly strengthening or weakening the international role of the U.S. dollar. While U.S. dollar hegemony is the fifth most mentioned benefit in our survey of experts in Figure 6, weakening of U.S. dollar hegemony is ranked as the seventh most mentioned risk (Figure 7, item not shown). On one hand, stablecoins can strengthen the hegemonic role of the U.S. dollar by increasing foreign dependence on U.S. payment rails, and by channeling foreign demand into U.S. assets such as U.S. Treasuries. However, stablecoins can also weaken the hegemonic role of the U.S. dollar by contributing to the fragmentation of the traditional dollar system. The proliferation of multiple, private, imperfectly substitutable stablecoins of varying credibility can erode the efficiency and cost-effectiveness of the fiat U.S. dollar as the global reserve currency. Consequently, stablecoins may weaken the network externalities at the core of the U.S. dollar's position in the international trade and financial system.

Top 5 stablecoin benefits - podcast mentions

Figure 6: The figure plots the absolute frequency of podcast speaker mentions of stablecoin benefits. The total frequency is 3,464. The question asked to the LLM Model is: "*What positive consequences, outcomes, advantages, gains, or benefits does the speaker associate with stablecoins? (e.g., faster settlements of payments, lower price volatility, lower transaction costs, more financial inclusion, more support for U.S.*

dollar hegemony (the U.S. dollar as global reserve currency), less money laundering)." See Appendix A and B for additional details. Source: Listen Notes and authors' calculations.

Figure 6 lists the top five perceived benefits of stablecoins according to our podcast survey of experts. Interestingly, the most mentioned benefit is financial inclusion followed by faster settlements, lower transaction costs, innovation, and support of U.S. dollar hegemony. Most of these perceived benefits are consistent with the use cases identified in Figure 5, except financial inclusion that ranks only as the seventh most mentioned use case.

Challenges and Risks

Our podcast survey of expert opinions in Figure 7 clearly identifies financial stability as the main perceived risk, followed by money laundering and illicit finance. The related risks of liquidity and cybersecurity risks came in as third and fourth, respectively, without altering the main survey message. Centralization risk generally refers to the risks arising from USD stablecoins being issued and backed by a centralized entity. These include, for example, operational, credit and counterparty risk.
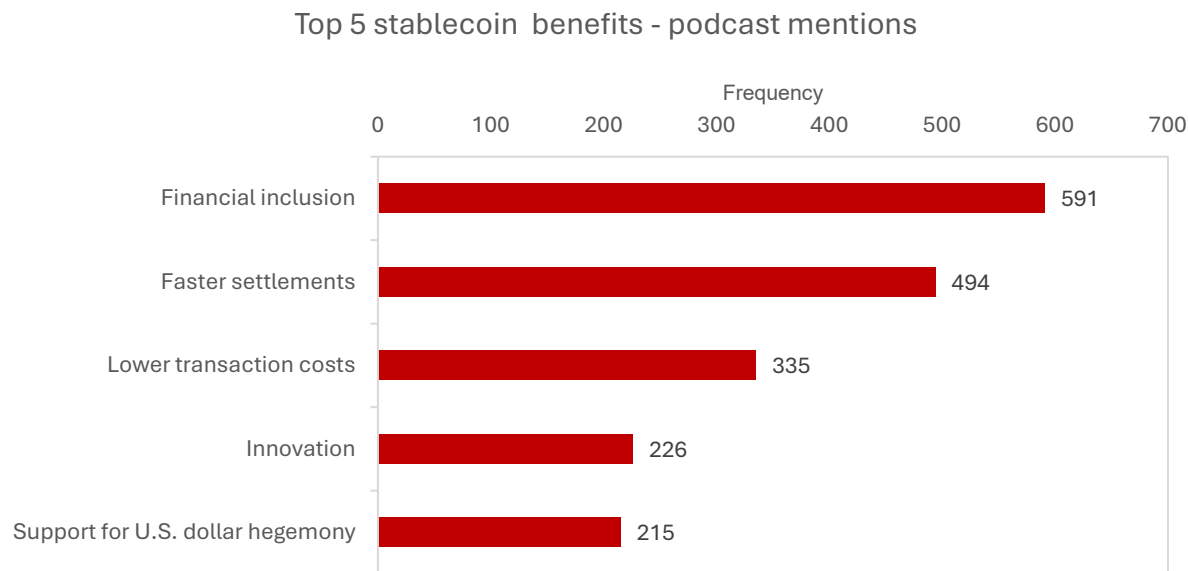
Top 5 stablecoin risks - podcast mentions
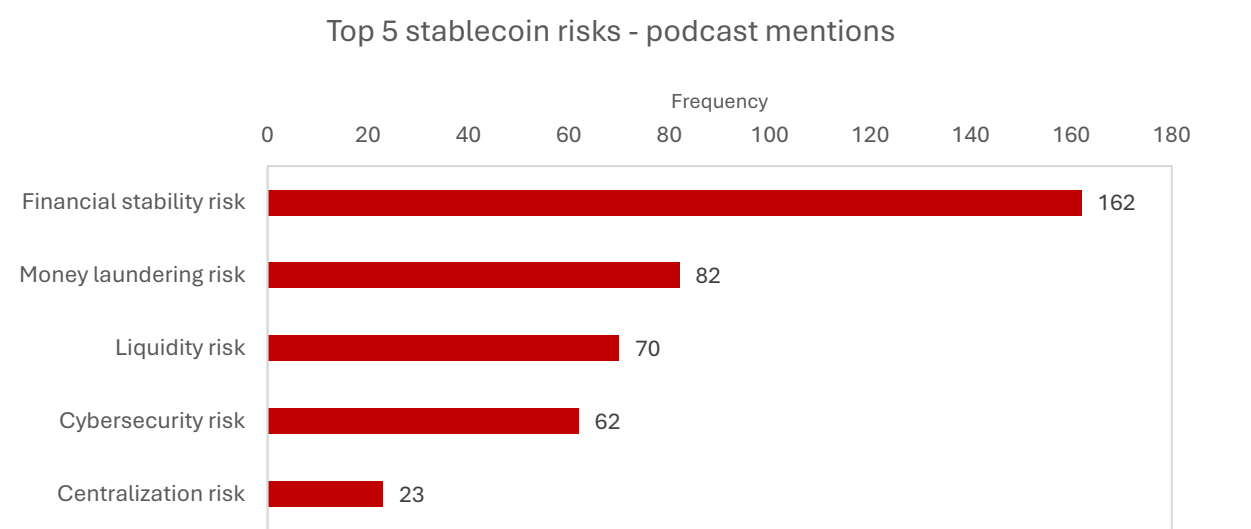
Figure 7: This figure plots the absolute frequency of podcast speaker mentions of stablecoin related risks. The total frequency is 2,448. The question fed to the LLM Model is *"What specific risks, challenges, possible costs, dangers, or negative consequences does the speaker associate with stablecoins? For example: fraud, financial stability risk, cybersecurity risks, breaking the buck, capital flight, bank disintermediation, risks to U.S. dollar hegemony (global reserve currency status), money laundering risk, liquidity risk, race-to-the-bottom risk (destructive competition), bank disintermediation, etc."* See Appendix A and B for additional details. Source: Listen Notes and authors' calculations.

Financial stability risks and vulnerabilities

Financial stability risks and vulnerabilities inherent to stablecoins are similar to those associated with other money-like instruments and means of payments, e.g., bank deposits and MMFs. Such risks can be discussed in the context of standard frameworks for financial vulnerability analysis such as those featured in the work of the Financial Stability Board (FSB) and in the IMF Vulnerability Matrices (FSB, 2021 and IMF, 2019), summarized in Table 2. These vulnerabilities include liquidity and run risks due to maturity mismatches, counterparty and credit risks, and interconnectedness with other parts of the domestic and international financial system. Stablecoins are exchanged on secondary markets, exposing holders to market risk and price volatility that may undermine their use as a (singular) money instrument (BIS, 2025). As with crypto and other digital financial technologies, stablecoins carry operational risk, and are exposed to fraud and cyber risks.

GENIUS-compliant stablecoins, by design, can ameliorate some of these vulnerabilities. For example, GENIUS-compliant stablecoins carry the same foreign exchange risk as the US dollar. Meanwhile, noncompliant stablecoins may hold assets that carry maturity, credit and potentially other foreign exchange risks for the issuer, in the absence of comparable requirements regarding reserves. GENIUS-compliant stablecoin issuers have limited scope to lever up, although stablecoins (GENIUS-compliant or not) tend to be used by investors to deploy leverage in cryptocurrency markets.

As Table 2 highlights, in general, these risks are much less pronounced for GENIUS-compliant stablecoins than for noncompliant stablecoins. One exception is interconnectedness, as GENIUS-compliant stablecoins are expected to be more widely adopted than noncompliant stablecoins within the U.S. financial system.

Risk category	Other stablecoins	GENIUS-compliant
Liquidity and run risk	High	Medium
Credit risk	Medium	Low
Counterparty risk	Medium	Low
Market risk	Medium	Low
FX risk	Medium	Low
Operational and cyber risk	High	Medium
Illicit finance risk	High	Medium
Leverage buildup	Medium	Low
Interconnectedness (U.S.)	Low	High
Interconnectedness (global)	High	High
Public backstop	No	No

Table 2. Stablecoin Financial Stability Vulnerability Matrix. See FSB (2021) and IMF (2019) for definitions of these risks.

Liquidity and run risk

Like bank deposits and MMFs, GENIUS-compliant and noncompliant stablecoins are runnable instruments. This is because the issuer promises on-demand redemption of its liabilities at par, while its assets may not always be sufficiently liquid or capitalized to satisfy all redemptions. A run could be triggered by holders' concerns about the value of the underlying assets, as in the case of SVB in 2023, when Circle faced large redemptions (Ahmed et. al, 2024). Such redemptions could induce stablecoin issuers to fire-sale reserve assets at a loss, propagating stress to banks and the Treasury market that can feedback into more redemptions. Stablecoins' digital nature and the ease and speed of exchanging them for dollars on secondary markets give stablecoin runs the potential to be both particularly large and fast. However, the GENIUS Act provides for the possibility that compliant issuers borrow in repo markets to meet redemptions, alleviating some of this vulnerability relative to noncompliant stablecoins.
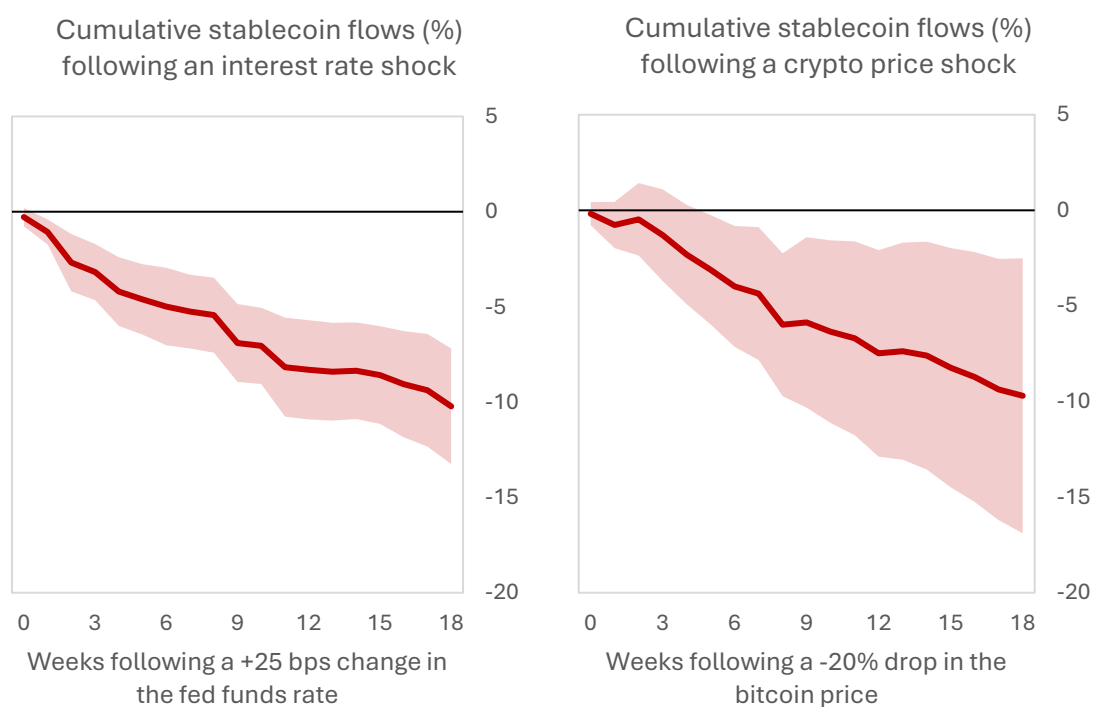
Figure 8. The left-panel plots the response of stablecoin market capitalization folloiwng a 25 basis point increase in the fed funds rate. The right-panel plots the impulse response function of stablecoin market capitalization following a 20 percent decrease in the bitcoin price. Shaded regions cover 95 percent confidence bands. Technical details provided in Appendix C. Source: CoinMarketCap, FRED, and authors' calculations.

Liquidity risks are heightened in a volatile interest rate environment because the opportunity cost of holding non-interest bearing stablecoins changes with interest rates.

When interest rates rise, stablecoin holders tend to migrate out of stablecoins and into interest-bearing instruments like MMFs and high yield savings accounts. Using weekly data from 2018 to 2025, the left-panel of Figure 8 shows that stablecoin market capitalization has historically declined following an increase in the fed funds rate. Similarly, U.S. banks struggled with deposit outflows as the Fed raised interest rates from zero to above 5 percent over the 2022-2023 period (See also Box 3 on the Silvergate bank run). While the GENIUS act goes a long way toward instilling trust in this new market and ameliorating some of these vulnerabilities, it does not eliminate liquidity risk, especially because GENIUS-compliant stablecoins, contrary to bank deposits, are not federally insured and do not have a public liquidity backstop.

Credit and counterparty risk

Stablecoin holders are also exposed to credit risk. Because stablecoin issuers can default and stablecoins are uninsured, stablecoin holders will be exposed to the default of the issuer. For example, when interest rates decline, the profit margins of the issuers will likely decrease given that operational costs are rate insensitive, possibly leading to insolvency if issuers were to maintain insufficient capital buffers. Such a dynamic can set in much faster in the case of noncompliant stablecoins.

Additionally, stablecoin issuers may also be directly exposed to credit risk because some of their reserve assets carry credit risk. Deposits carry credit risk because they would most likely exceed the FDIC insured limit. In fact, during the run on SVB in March 2023, Circle publicly disclosed that it held $3.3 billion (8 percent of its reserves) in deposits with SVB, most of which were uninsured. Following the disclosure, the USDC secondary market price fell substantially below $1 until federal regulators stepped in to guarantee all deposits. The outstanding supply of Circle's USDC shrunk 44 percent in the weeks following the event. According to Circle's CEO, the company's holdings of deposits are still mostly uninsured, but Circle has since moved its deposits to the largest globally systemically important banks. While the credit risk exposure of GENIUS-compliant issuers is by the nature of their assets more limited, noncompliant issuers have no restrictions to their direct credit exposure.

If a stablecoin issuer defaults, the GENIUS Act provides that holders are creditors with a priority claim on reserve portfolio assets that the issuer holds in a segregated, bankruptcy-remote account.[14] Therefore stablecoin holders are treated somewhat like depositors, who are creditors to banks with a priority claim on bank assets over general creditors. A key difference, however, is that stablecoin holders do not have any recourse to the interest

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[14] If a U.S. stablecoin issuer that borrowed repo defaults, then the repo lending counterparty does not have to join other creditors in the bankruptcy process and can immediately sell the pledged collateral due to the "safe harbor" provision of repo contracts. This may leave segregated stablecoin reserves insufficient to make all stablecoin holders whole in some circumstances, such as if a large portion of reserve assets are sold at a loss.

revenue earned by the stablecoin issuer if the issuer places retained earnings in accounts outside those segregated on behalf of the holders.

To minimize credit risk exposure, the GENIUS Act stipulates that stablecoin issuers hold only reverse repos secured by U.S. Treasuries, yet reverse repo positions still expose the stablecoin issuer to a small amount of counterparty risk, specifically the risk that the counterparty fails to repay and the value of the collateral has fallen below the amount of funding provided to the defaulting repo borrower. This risk may be heightened in segments of the repo market in which lending often occurs with no collateral haircuts.

Market risk

Most stablecoin holders are exposed to market risk as the secondary market price for stablecoins can deviate from $1 for a variety of reasons. Only select authorized participants can access the primary market and redeem at par directly with the issuer. Market risk is much larger for noncompliant stablecoins backed by assets carrying material market risks themselves.

Similarly, stablecoin issuers are also exposed to market risk mainly in the form of interest rate risk. By holding reserves in short-term T-bills, GENIUS-compliant stablecoin issuers are exposed to the possibility that interest rate increases could depress the value of their T-bill holdings. Interest rate increases could depress the value of collateral underlying an issuer's reverse repo positions. These risks are magnified for noncompliant issuers that may back their stablecoins with longer dated government securities, crypto, commodities, or assets with higher credit risk.

Leverage and FX risk

The GENIUS Act provides for the possibility that compliant issuers borrow in repo markets but only to meet liquidity needs, rather than to lever up. Moreover, GENIUS-compliant stablecoins must be backed by U.S. HQLA, leaving no room for FX risk on the balance sheet of the issuer.

By contrast, noncompliant stablecoins, in principle, may use leverage to enhance returns, either by financing assets in repo markets or through other means. Tether, for example, has at times extended loans to third parties by borrowing against the reserves backing its stablecoins. GENIUS-compliant stablecoin issuers are only allowed to borrow against or rehypothecate assets held as reserves to meet specified liquidity needs.

Noncompliant USD stablecoins, in principle, may also invest in non-dollar denominated assets which carry FX risk. Tether has a small allocation of reserves in non-U.S. sovereign debt, although their currency denomination is not disclosed.

Box 3. Stablecoins and Financial Stability: Lessons from the Silvergate Bank Run

Case studies of stablecoins issuers are necessarily limited because of the recent advent of this financial innovation. However, stablecoins share several characteristics with non-interest bearing bank deposits. Neither pay interest; both entail on-demand redemption rights and are means of payments. This box relies on this analogy to draw lessons for stablecoins from the 2022 run on Silvergate Bank, a crypto-servicing bank whose balance sheet was strikingly similar to that of a stablecoin issuer.

Individual stablecoin issuers have faced several episodic runs that tested their liquidity management procedures and design. In 2022, Tether faced significant redemption stress following the terminal de-pegging of the algorithmic stablecoin Terra. After publicly disclosing $3.3 billion worth of deposits with SVB in 2023, Circle faced large redemptions. For several weeks following these events, the market capitalization of Tether and Circle fell by about 22 percent and 44 percent, respectively. However, another relevant episode of stress may be the Silvergate Bank run toward the end of 2022, when the bank lost nearly 70 percent of its non-interest bearing deposits over a short period of time.

Silvergate Bank was a $16 billion intermediary that shut down after experiencing severe deposit outflows in a matter of days. Silvergate's business model and balance sheet was remarkably like that of a dollar-backed stablecoin issuer (Figure 9). The run on Silvergate provides an example of how stablecoin issuers could end up succumbing to the financial stability risks they face.
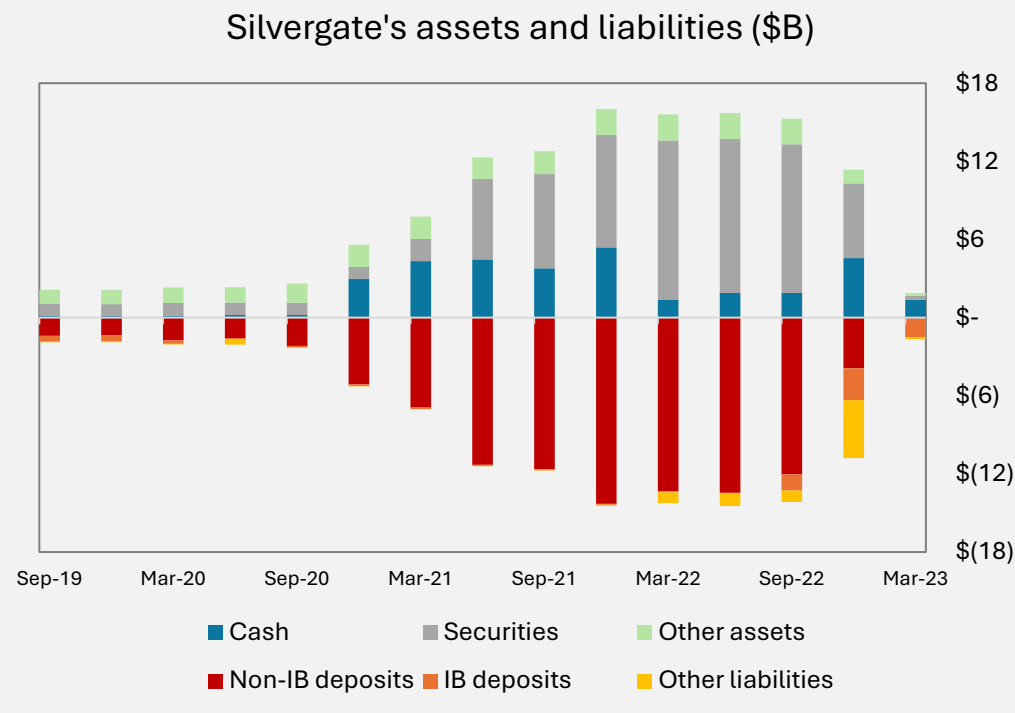
Figure 9. Quarterly assets and liabilities of Silvergate Bank. "IB" refers to "interest-bearing." Source: FFIEC-031 Call Reports.

Silvergate specialized in servicing the cryptocurrency industry. Consequently, like stablecoin demand, the demand for Silvergate's deposits was volatile and sensitive to cryptocurrency shocks. Its customers consisted almost entirely of crypto exchanges and institutional crypto investors, along with some other crypto-focused businesses such as platform developers and blockchain miners. In addition to providing traditional banking services, Silvergate provided customers with access to its Silvergate Exchange Network, which enabled instant payments and transfers among network participants. Silvergate's deposits ballooned, increasing nearly seven-fold from $2.3 billion to $14.3 billion between September 2020 and December 2021 when cryptocurrency market capitalization grew from $343 billion to roughly $2.5 trillion.

Silvergate's balance sheet looked more like that of a stablecoin issuer than a traditional bank. Like stablecoins, 99.5 percent of Silvergate's $14.3 billion deposits did not pay any interest, nearly all were uninsured, and Silvergate's depositors participated heavily in crypto market activities. Most of Silvergate's assets, nearly 90 percent, were invested in HQLA, again following the structure of most stablecoin reserve portfolios, including those that will be GENIUS-compliant.

Despite the similarities, it is also important to note some differences. First, Silvergate held most cash balances with the Fed, while stablecoin issuers hold cash as deposits with banks. Second, existing stablecoin issuers hold short-duration HQLA like T-bills, while

Silvergate held mostly long-term HQLA (e.g., Treasury notes and agency mortgage-backed securities) that might have been a concern for Silvergate's uninsured depositors but would not be much of a factor for GENIUS-compliant stablecoins. As a result, Silvergate carried more liquidity and duration risk than a GENIUS-compliant stablecoin issuer, but could also manage the liquidity risk on its deposits by having access to the backstop of the Fed discount window, and the duration risk on its securities by maintaining wide capital buffers.[15]

As it is now well understood, traditional banking risks alone did not take down Silvergate. Rather it was the collapse of FTX, one of the largest cryptocurrency exchanges.[16] During the cryptocurrency market crash of late 2022, FTX was hit with significant customer withdrawals amid solvency and fraud concerns. FTX was among Silvergate's largest depositors. On November 8 the exchange halted withdrawals and FTX CEO Sam Bankman-Fried filed for bankruptcy on November 11. The run on FTX, in turn, triggered a massive depositor run on Silvergate. While the public data is only available at a quarterly frequency, Silvergate lost $8.15 billion of its $12 billion in non-interest bearing deposits from Q3 to Q4 of 2022, or a 68 percent outflow. Some estimates suggest that the run on Silvergate occurred in seven days or less, comparable to the speed of the runs on SVB (1-2 days) and First Republic (7-14 days) in 2023. While major stablecoin issuers have yet to face a run of such speed and scale, the run on Silvergate demonstrates what is plausible.

The author of Box 3 is Rashad Ahmed.

Operational and cyber risks

Like other crypto holders, holders of GENIUS-compliant and noncompliant stablecoins and stablecoin issuers are also exposed to operational and cybersecurity risks. These risks arise from smart contract vulnerabilities when the underlying code has exploitable loopholes or if the blockchain becomes insufficiently decentralized.[17] Developments in quantum computing are also introducing new risks to the cryptographic verification mechanisms currently securing many blockchains (Allende et al., 2023). While the ability to self-custody stablecoins has its appeal, it requires users to manage their own private

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[15] Silvergate's Tier 1 leverage ratio was 10.49% in December 2021, compared to a minimum requirement of 4%.

[16] At its peak, FTX was the third largest global cryptocurrency exchange, valued at $32 billion with over 1 million users.

[17] A textbook example of a blockchain vulnerability is the 51% attack, which occurs when a single entity or group gains majority control of a proof-of-work blockchain's mining power or a proof-of-stake blockchain's staked tokens.

keys (i.e., alphanumeric pass codes to access a digital wallet), and these can be lost or stolen.

While GENIUS-compliant issuers will be subject to *ex ante* regulatory requirements and *ex post* monitoring, mitigating their vulnerability relative to noncompliant coins, they will also become more attractive targets of cyber attacks and potentially stronger conveyors of operational risk because they likely will be more widely adopted within the U.S. financial system.

Illicit finance risk

The pseudonymity of stablecoins enhances privacy but also raises the risk of its use for illicit financing activities.[18] Crypto analytics firms such as Chainalysis and TRM Labs currently estimate that stablecoins account for over 60 percent of illicit cryptocurrency transaction volume, overtaking bitcoin as the cryptocurrency of choice for illicit finance (Aldasoro et al., 2025b). These firms also suggest that cryptocurrencies accounted for about $50 billion in illicit finance activity in 2024. Most crypto-financed illicit activity takes the forms of scams and ransomware, but stablecoins have also been increasingly used for terrorist financing and sanctions evasion. There is also some evidence of stablecoins increased use in money laundering activities by terrorist organizations.[19]

In efforts to address the trade-off between privacy and illicit finance in decentralized transactions, Duffie et al. (2025) propose a 'compliance by design' approach to blockchain transaction verification. Compliance enforcement would take place as transactions occur, based on predefined criteria and risk indicators, instead of reactively, as is the case today. This would, however, require both parties in a blockchain transaction to have undergone KYC verification prior to transacting. By implementing cryptographic technology known as zero-knowledge proofs, KYC compliance could be demonstrated without compromising the privacy of the parties transacting. While 'compliance by design' may alleviate some of the concerns facing stablecoins and illicit finance, not all stablecoin issuers nor users may wish to participate, especially those that place particularly high value on privacy.

Interconnectedness

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[18] Pseudonymity in cryptocurrency transactions refers to transacting without revealing one's identity. Pseudonymity differs from anonymity in that the addresses of the digital wallets participating in a transaction are publicly known, even though these addresses are not linked to personal identifiable information. This means individual wallets can still be traced and tracked, and under certain circumstances, possibly mapped to an identity.

[19] Tether froze addresses identified as being involved in terrorism and war financing as well as addresses identified in evading sanctions.

A growing stablecoin market significantly strengthens interconnectedness between the crypto ecosystem and the traditional financial system. Stablecoin redemption risks tend to grow when cryptocurrency prices decline (Aldasoro et al., 2025) because stablecoins facilitate cryptocurrency trading and use of leverage in that market. According to Galaxy's Q2 2025 State of Crypto Leverage report, the dollar-denominated value of crypto leverage reached multi-year highs of $26.5 billion of collateralized crypto lending (up 42.11 percent from the previous quarter) and $132.6 billion of crypto futures open interest (inclusive of perpetual futures). Moreover, cryptocurrency investors may rebalance their portfolios away from (toward) stablecoins when cryptocurrency valuations fall (rise) in order to manage their portfolio allocations (Calvet et al., 2009, Camanho et al., 2022). Consistent with this, the right-hand side of Figure 8 shows that historically, stablecoin market capitalization has declined following a decrease in the price of bitcoin.

Consequently, stress in cryptomarkets has the potential to propagate to and beyond the traditional financial markets in which stablecoin reserves are invested such as Treasury, repo and deposit markets. When cryptocurrency prices fell dramatically in 2022, the algorithmic stablecoin Terra failed and crypto market stress spread to Tether, which faced redemptions and significant downward price pressure in secondary markets. The link between cryptocurrency market volatility and stablecoins may persist or even strengthen if large crypto-focused firms continue adopting stablecoins for their business operations. The analog case of Silvergate Bank, which specialized in servicing the crypto industry, vividly illustrates how these dynamics can unfold and develop very rapidly (Box 3).

The interest rate sensitivity of stablecoins and their use in traditional financial transactions can amplify their interconnectedness with the financial system. Paradoxically, this vulnerability could become much larger for GENIUS-compliant stablecoins in the event of faster and more widespread adoption within the U.S. financial system. This risk would be compounded by the emergence of nonfinancial issuers, like the large retail chains or the U.S. tech giants as the historical account of the period of private money and free banking in the United States suggests (Box 2).

Another source of (cross-border) interconnectedness comes from global stablecoin issuers dual issuance of stablecoins. Stablecoin issuers operating across borders may mint stablecoins across jurisdictions with different regulatory regimes while also offering portability across jurisdictions.[20] This is not unlike U.S. banks that set up foreign office branches to issue deposits across jurisdictions. In contrast to stablecoins, however, most foreign office deposits are not portable across jurisdictions.[21] The dual issuance of global

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[20] For example, Circle LLC in the United States mints GENIUS-compliant USDC while Circle SAS in Europe mints MiCA-compliant USDC, but USDC minted by Circle LLC can be redeemed through Circle SAS and *vice versa*.
[21] Unlike stablecoin issuers and US banks, US MMFs do not typically issue shares outside the US.

stablecoins also creates regulatory arbitrage risks and enables stablecoin market stress to propagate internationally.

With stablecoins circulating across multiple jurisdictions under differential regulatory regimes, it is also possible that redemption stress originates in a more loosely regulated jurisdiction, perhaps due to a deterioration in reserve assets that are eligible reserves under that jurisdiction's regulatory regime. The issuer may then face strains and redemptions also in the more tightly regulated jurisdictions. Consequently, entities in more tightly regulated jurisdictions may end up with runs simply because of the perception of more stringent regulatory requirements and higher quality reserves. Alternatively, the balance sheets of more tightly regulated entities could be used to effectively bail out more loosely regulated entities. All these scenarios potentially increase international spillover risks.

Regulatory gaps

While the GENIUS Act lays the foundation for a comprehensive regulatory framework for stablecoins, it leaves several issues unaddressed. The Act does not grant stablecoin issuers access to public liquidity backstops or guarantees in times of financial stress. While it mandates adequate risk management processes and controls, the Act only requires the OCC and state regulators to develop appropriate capital and liquidity rules which will take time to develop and implement, while market development could significantly accelerate after the Act's approval, leaving the system vulnerable to incidents before the guardrails are in place.

Importantly, the Act prohibits stablecoin issuers from paying interest to holders, but does not appear to prohibit indirect interest payments and rewards on stablecoins via exchanges, decentralized protocols, or partnership with third parties - something that has been practiced for several years by stablecoin issuers but has become a recent point of tension with the banking industry. The Act states that stablecoins are neither securities nor commodities, but the survey of experts suggests that stablecoins are also viewed as a store of value akin to a liquid investment like a tokenized MMF, perhaps consistent with holders' option to earn interest indirectly.

The GENIUS Act also does not directly address tax implications of capital gains and losses arising from stablecoin price deviations from $1 (Box 1). While the GENIUS Act requires monthly disclosures of reserve portfolios, full transparency would require supplementing these with real-time reserves verification through, for example, blockchain-based proof of reserves.

Public backstops and guarantees

Unlike U.S. dollars, USD stablecoins are not backed by the full faith and credit of the U.S. government. Nor does any regulatory agency insure stablecoin holders the way the FDIC

insures depositors.[22] In the event of a liquidity shock, banks have access to the Federal Reserve discount window and to the standing repo facility (SRF). Stablecoin issuers that are subsidiaries of insured depository institutions may indirectly have access to Fed liquidity facilities to the extent that the parent bank is prepared to borrow at the discount window or from the SRF against its own collateral and can pass funding on to its stablecoin subsidiary. However, non-bank stablecoin issuers would not have such indirect access.

In principle, and particularly if stablecoins become important in short-term funding markets and Treasury markets, the Fed could authorize non-bank stablecoin issuers to serve as counterparties for SRF operations.[23] In that case, stablecoin issuers could borrow overnight from the Fed in the form of overnight repurchase agreement operations.

In extreme situations, the Fed is also granted the authority to provide emergency liquidity to non-bank financial institutions under 13(3) of the Federal Reserve Act. For example, 13(3) was invoked to support MMFs during the 2020 pandemic.[24] Under 13(3), the Fed can provide liquidity to individuals, partnerships and corporations in "unusual and exigent circumstances" as determined by a vote of the Board and with formal approval of the Secretary of the Treasury. Under Dodd-Frank, 13(3) programs must be broad-based and not designed to support an individual firm. Moreover, lending under section 13(3) is subject to a number of reporting requirements and other criteria.[25]

As the BIS (2025) notes, reflecting the private nature of the issuers and the absence of backstops, both GENIUS-compliant and noncompliant stablecoins lack the "elasticity of fiat money" - the system's capacity to expand or contract the money supply safely to meet payment demand through banks and the central bank.

Key Issues Ahead

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[22] The GENIUS Act specifically prohibits stablecoin issuers from misrepresenting stablecoin tokens as being backed by the credit of the United States.

[23] The FOMC established the SRF in 2021 to "serve as a backstop in money markets to support effective implementation of monetary policy and smooth market functioning." Presumably, the FOMC would need to conclude that adding stablecoin issuers to the list of SRF counterparties would help support these key policy goals of the SRF. Counterparties for SRF operations are specified in the Committee's Continuing Directive for Domestic Open Market Operations. The Continuing Directive currently specifies primary dealers and depository institutions as SRF counterparties. The FOMC would need to vote to amend that document to add a new class of SRF counterparties.

[24] The Fed established the Money Market Fund Liquidity Facility during the COVID pandemic and ended it in March 2021.

[25] The Fed could likely also provide liquidity to stablecoin issuers utilizing 13(13) lending authority. Under that authority, the Fed could lend to stablecoin issuers against their holdings of Treasury bills for periods as long as 90 days. Lending under section 13(13) has been extremely rare, but it is not subject to the same limitations applied to lending under 13(3).

Stablecoins are likely here to stay. The GENIUS Act and companion legislative proposals and executive orders blocking the development of a public alternative in the form of CBDC in the United States suggest that this is the direction in which USD digital money will evolve in the future. This raises several questions, issues, and policy challenges that will have to be addressed as the market matures and evolves.

Stablecoin market growth and its implications for U.S. HQLAs

With growth projections into the multi-trillion dollar range, it is natural to ask where these large flows into GENIUS-compliant stablecoins will come from and how they will affect the HQLA markets that stablecoin reserves will be invested in. The Treasury market and the banking system are likely to be much more significantly affected than the MMF industry. The impact on MMFs will largely depend on whether stablecoins become the new dominant form of payment or a yield-offering digital asset with a similar risk-return profile to tokenized MMFs.

Implications for the Treasury market and government debt financing

Appendix D discusses possible sources of inflows into stablecoins and the associated impact on the Treasury market. The four scenarios considered are reallocations toward stablecoins from MMFs, physical cash, bank deposits, and foreign currency.

Reallocation from MMFs to stablecoins has a neutral impact on the demand for short-term Treasuries as MMFs and stablecoin issuers sell and buy T-bills proportionately. If users switch from physical cash to stablecoins, currency in circulation declines and T-bill demand increases, as stablecoin issuers allocate some portion of inflows toward T-bills. Bank system reserves and deposits may also increase in the short-run. If depositors switch to stablecoins, then the impact on Treasury demand is also positive. However, demand for longer-term Treasury notes and bonds could decrease if banks fund deposit outflows by reducing their long-term Treasury holdings. In some cases, deposit outflows may impact bank credit provision. If stablecoin issuers receive inflows from overseas, T-bill demand rises, and the necessary currency conversion may impact the U.S. dollar exchange rate.
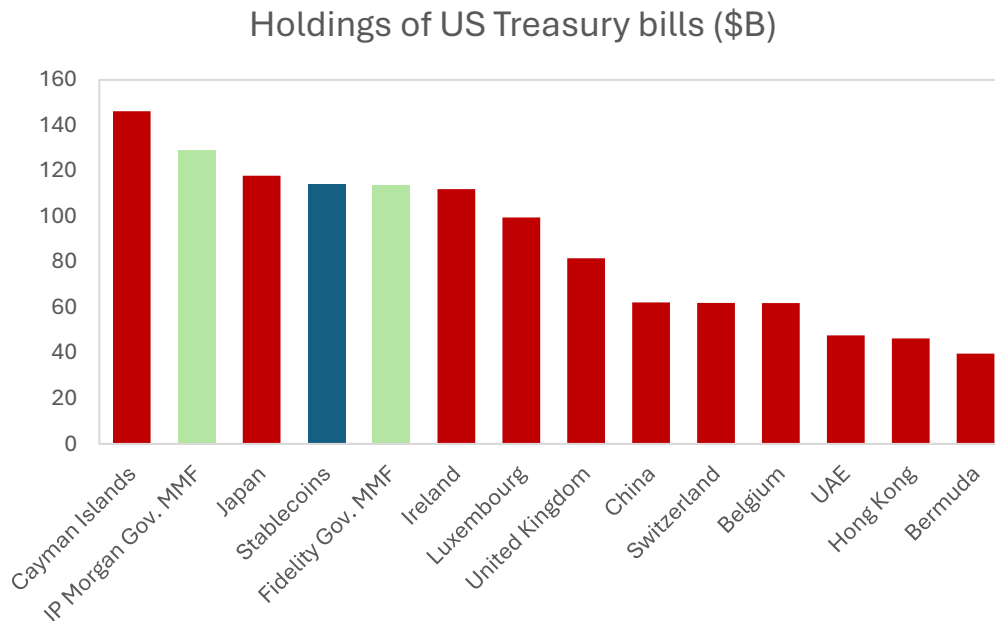
Holdings of US Treasury bills ($B)

Figure 10: The figure plots US T-bill holdings of stablecoin issuers, foreign countries, and government money market funds (GMMFs). Stablecoin holdings are the sum of Circle and Tether reported T-bill positions as of December 2024 including indirect T-bill holdings through money market funds. Foreign country and GMMF holdings of T-bills as of January 2025. Source: Ahmed and Aldasoro (2025) and authors' calculations.

It is possible that foreign demand for USD stablecoins will help finance rising U.S. deficits at a time when long-standing foreign investors are reducing their appetite for U.S. debt - albeit at a cost of increased rollover risk due to the shorter maturity of U.S. T-bills. However, if the stablecoin market grows sufficiently large, then the corresponding purchases of U.S. T-bills could distort market prices and interfere with the Federal Reserve's monetary policy objectives (Ahmed and Aldasoro, 2025, Yadav and Malone, 2025). USD stablecoin markets are still relatively small, yet Circle and Tether together hold over $100 billion of U.S. T-bills in their reserve portfolios, already making stablecoin issuers some of the largest T-bill investors (Figure 10).

Implications for banks

GENIUS-compliant stablecoins could compete with bank deposits and more broadly with banks in the provision of domestic and international payments (Liao and Caramichael, 2022). Community banks have been especially vocal about the risks of stablecoin adoption accelerating deposit flight from small banks, potentially hampering their ability to provide credit to small and medium-sized firms. Larger banks have also expressed concerns, mainly regarding the possibility of non-interest bearing stablecoins offering interest to holders indirectly via exchanges and third-party platforms. While large and systemically important banks are less concerned with deposit flight, increased

competition from stablecoins may erode their funding cost advantage by forcing these banks to re-price their deposits more competitively.

However, stablecoin issuers could also provide banks with a new source of demand for uninsured bank deposits and new revenue streams for bank issuers. Because stablecoins do not pay any interest, they could turn into a margin-enhancing line of business for banks. Banks could issue GENIUS-compliant stablecoins, providing depositors who would otherwise migrate to stablecoins issued by nonbanks with an alternative, while also attracting new bank customers - all while reducing their average cost of funds due to the non-interest bearing nature of stablecoins compared to interest bearing deposits. In addition, banks could expand their business to provide services to stablecoin issuers, such as reserve management and asset custody – activities they already have expertise in. Banks and credit unions could also issue stablecoins or partner with issuers to further integrate their mobile banking businesses with fintech platforms. In line with this view, our podcast survey of experts takes a neutral view on the substitutability of stablecoins and deposits (Appendix Figure A5).

Efficient payment means or digital assets creating new financial risks?

The GENIUS Act prohibits stablecoin issuers from paying interest, but innovative products and practices that reward holders are enabling stablecoins effectively to earn interest. Third parties, however, can offer rewards to stablecoin holders or instant convertibility between stablecoins and yield-bearing tokenized products (akin to yield-bearing stablecoins). Similarly, stablecoin holders can legally earn interest by lending their stablecoins on DeFi lending protocols. This raises the question of whether USD stablecoins will remain simply a more efficient means of payment as currently intended under the GENIUS Act, or whether they will evolve into widely held digital investment assets with varied risk-return profiles. The answers to these questions have important implications in terms of both opportunities and challenges investors and policymakers face.

Yield-bearing stablecoins that directly pay interest are a relatively new, fast-growing segment, worth over $10 billion and mostly available only abroad. In the United States, some large US asset managers offer investors yield-bearing digital instruments structured as tokenized Treasuries or tokenized MMFs, registered with the SEC as securities. In addition, some third-party platforms and exchanges, both within and outside the United States, have partnered with stablecoin issuers to offer interest indirectly in the form of rewards to holders. Indirect interest may still be funded by the interest revenue of the stablecoin issuer, but it would be technically paid by the third party. Stablecoins could also earn interest for their holders through decentralized financial intermediation platforms. For example, stablecoin holders can earn interest by lending their stablecoins to borrowers

on DeFi lending protocols: unregulated, on-chain lending platforms that operate autonomously.[26]

Alongside the financial engineering generating yield for stablecoin holders come new technologies that effectively blur the line between stablecoins as an investment instrument and a means of payment. For example, tokenized cash management allows wallets and platforms to automatically sweep idle non-interest bearing stablecoin balances into yield-bearing instruments while preserving the instant, par convertibility for payment purposes. Such technologies could improve working-capital efficiency for merchants, exchanges, and corporate treasurers. Broader access to tokenized T-bills and MMFs could support financial inclusion by expanding the supply of safe assets available to potential investors outside traditional or expensive brokerage channels. On-chain instruments can provide granular information regarding holdings, flows, and collateral metrics at high frequency, thus enhancing transparency and enabling more precise margining and collateral reuse. Finally, readily available stablecoin funding could support price discovery, arbitrage and market-making, leading to tighter cross-venue spreads and more robust market microstructure.

At the same time, however, seamless convertibility between payment tokens and yield-bearing products could increase financial vulnerabilities. Redemptions could propagate faster and become bigger and less predictable, thereby amplifying liquidity stress for stablecoin issuers and tokenized MMFs alike. Third-party "rewards programs" could introduce additional credit and operational risk, while incentives to over-promise yields could erode stablecoin issuers' profitability and buffers, especially when interest rates decline. A rapid expansion of DeFi activity would be associated with increased leverage and interconnectedness between the crypto ecosystem and traditional financial markets. Because stablecoins lent on protocols tend to be the funding leg for speculative positions, pro-cyclicality of the financial system could be amplified by crypto leverage cycles. Finally, differences in disclosure rules and practices across jurisdictions and cross-border regulatory gaps would invite regulatory arbitrage, complicating international supervisory and regulatory coordination efforts.

Broad adoption of GENIUS-compliant stablecoins or a fragmented global landscape?

The road ahead after the GENIUS Act remains uncertain. Will GENIUS-compliant stablecoins push out noncompliant USD stablecoins, or will unregulated, offshore USD stablecoins continue to grow globally but also thrive within the U.S. crypto ecosystem? While Tether plans to issue a GENIUS-compliant stablecoin in the United States, its

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[26] DeFi rates paid on stablecoins are typically high and disconnected from traditional money market rates, reflecting factors such as time-varying credit risk of the protocol, supply-demand imbalances, and market segmentation (Barbon et al, 2025, Eichengreen et al., 2025).

noncompliant stablecoin USDT is by far the largest USD stablecoin globally and in the United States today. Currently Tether has a rumored valuation around $500 billion, suggesting that the market expects further growth of both onshore and offshore USD stablecoins.

In a scenario where GENIUS-compliant stablecoins push out noncompliant USD stablecoins and grow to dominate the global USD stablecoin market, interconnectedness will increase markedly between stablecoins and the global financial system. However, financial stability risk specifically stemming from stablecoins in this scenario could be *comparatively* lower because of the regulatory guardrails of the GENIUS Act.

In an alternate scenario, stablecoin fragmentation would persist and the bifurcation of the USD stablecoin market into GENIUS-compliant and noncompliant segments becomes a permanent feature of the global financial system rather than a transitory issue. In this scenario, interconnectedness within the U.S. financial system could still increase, while the global USD payment system would also become more fragmentated, less transparent, and carry more financial vulnerabilities because of the greater risk associated with noncompliant stablecoins.

Somewhat analogous to the offshore eurodollar market, circulating stablecoins would be subject to different, possibly weaker, regulatory standards, with noncompliant activity lying outside the United States. Compared to eurodollars, however, noncompliant stablecoin flows could be even more difficult to track if used for illicit transactions. Additionally, large differences in issuer quality could result in very heterogenous stablecoin risk-return profiles that, if adopted as investments, could simply turn stablecoins into another risky investment asset class among cryptocurrencies, rather than the promised revolutionary means of payments discussed in the survey of experts.

International policy coordination

While USD stablecoins are increasingly used globally, regulatory approaches toward stablecoins are not converging across jurisdictions. This raises the prospect of a global market in which some governments may impose more stringent regulations than others. For example, Europe's MiCA requires at least 30 percent of stablecoin reserves to be held as bank deposits and up to 60 percent for larger stablecoin issuers, which some observers judge to be more restrictive than the coverage requirements under the GENIUS Act. As already noted, however, deposit themselves remain runnable instruments as the 2010 European crisis or 2023 run on SVB have shown. In the absence of international policy coordination, persistent and marked regulatory fragmentation across jurisdictions has the potential to induce a race to the bottom.[27] Governments may choose to pursue

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[27] Regulatory fragmentation is also apparent within the United States. The GENIUS Act leaves states to fine tune their stablecoin regulatory regime, and some states may have already taken a more permissive

less stringent regulatory regimes and hope to capture a larger share of the benefits from stablecoin innovation and market development. Instead of focusing on responsible innovation and growth, stablecoin issuers may then focus efforts on regulatory arbitrage which could lead to even more risk-taking and a more vulnerable financial system.

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approach than others. For example, Wyoming's approach toward crypto regulation has been viewed as relatively permissive, while New York has taken a relatively conservative approach.

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Appendices

Appendix A: Survey of Stablecoin Podcasts using LLMs[28]

Data Sources

We collected the podcast dataset from a podcast metadata vendor called Listen Notes.[29] This vendor provides access to a wide range of podcast episodes across diverse subject areas. Each record in the dataset corresponds to an individual podcast episode. The episode metadata include the episode title, the publication date, a short description, and a direct link to the audio file. The title and the description metadata allow us to specifically focus on episodes discussing stablecoins.

From Listen Notes, we downloaded all unique podcast episodes in the database from January 20, 2025 to July 17, 2025 with "Stablecoins" in the title or description of the episode. This yielded 4585 unique episodes in total, excluding duplicate episodes. To ensure that the episodes analyzed contain a substantial discussion about stablecoins and not merely introductory explanations or part-discussion of other topics and issues, we further restricted our sample to episodes longer than 1,800 seconds (30 minutes). To make sure the country of focus is the United States, we also limited the sample to episodes in English with 'U.S.' as the country code. After this filtering, the final sample consists of 1,662 podcast episodes.

Data Processing and LLM

We then processed our sample of podcast episodes in the following steps:

1. **Transcribing.** Listen Notes provides the audio link for each podcast episode. To obtain a podcast transcript from the podcast audio, we used Whisper (https://openai.com/index/whisper/.), which is an open-source speech-to-text LLM transcriber.[30] Based on these Whisper-generated transcripts, the average transcripts' length is roughly 10,000 words for each episode, with the maximum number of English words in a transcript being 77,000 words (Figure A1).

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[28] The author of Appendix A and B is Geyue (Grace) Sun, who is a PhD student at George Washington University. Work on this project was completed while she was a PhD intern at the Andersen Institute.
[29] The Listen Notes website: https://www.listennotes.com/.
[30] Whisper is an automatic speech recognition system developed by OpenAI that converts spoken audio into written text. See also Radford et al. (2023).

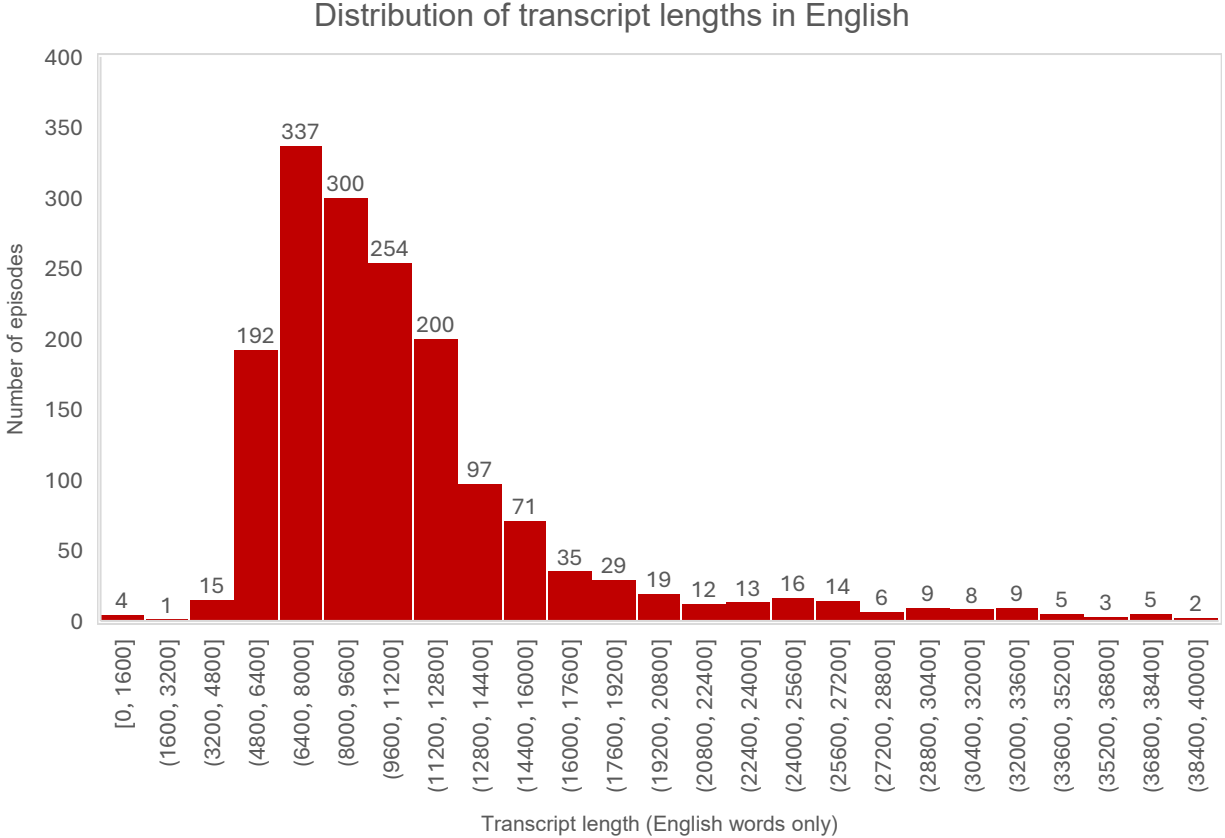## Distribution of transcript lengths in English

Figure A1. Transcript length distribution

2. **LLM Model Strategy.** In Large Language Model (LLM) applications, there are generally two main strategies: **Online LLMs** (e.g., prompting GPT, Claude, etc.), which allow for sending prompts via API calls and optionally fine-tune through online services, and **Local LLMs** (e.g., Meta-Llama, BERT), which allow for running models locally for prompt processing and rely on local computing power for further training as illustrated in Table A2. The analysis reported in the main text relies on **Online-prompting** because it provides access to the latest and most advanced model capabilities without the need for heavy investment in local infrastructure. This method ensures rapid deployment, scalability, and continuous updates from the service provider, enabling us to focus on application development rather than model maintenance. One important drawback of this approach is the inability to assure accurate replicability of the analysis, as the model and their information set rapidly evolve.

Method	Online LLM	Local LLM
Prompt	Call API (e.g., OpenAI) with prompts.	Run local models with prompts.
Finetune	Further training models using online services.	Further training models locally.

Table A1. LLM Model Strategy

3. **Prompt Design**. The most important step in the survey analysis is the formulation of the questions to pose to the body of text data through LLM prompting. Given the size of the dataset and the objective to maximize response accuracy relative to the opinions potentially expressed in the podcast episodes, the number of prompts submitted was limited to the 16 listed in Table A2, and further described in detail together with the full set of survey results in Appendix B.

Consistent with best practices, our "LLM prompt" consists of two main components: the **system prompt** and the **user prompt**. The system prompt provides general instructions that consistently apply across all questions, while the user prompts are tailored, task-specific questions designed for each question called indicators in LLM parlance.

The survey system prompt is as follows.

"You are given a transcript from a podcast episode discussing stablecoins."

"Your task is to analyze the transcript and extract structured insights based on the 11 questions below. Each question is designed to capture specific aspects of the ongoing public debate on stablecoins, including themes, sentiment, perceived risks and benefits, regulatory framework, and investor location. Please answer **each field** explicitly. Return short phrases and avoid duplicating. If a field is not discussed in the transcript, return 'N/A'."

Variable Name	Description
main_topics	Main themes/issues discussed (keywords/short phrases)
sentiment_score	Speaker's attitude toward stablecoins (-2 to +2 scale)
sentiment_description	Short phrase summarizing tone (e.g., "neutral and factual")
us_mentions	Count of mentions of U.S. investors/users/holders
non_us_mentions	Count of mentions of non-U.S. or foreign investors/users/holders
investor_explanation	Explanation for investor geography mention counts

perceived_risks	Risks, costs, and challenges mentioned
perceived_benefits	Benefits, gains, and advantages mentioned
relationship_score_Bank Deposit	Score on substitution/complementarity with bank deposits (1–5 or N/A)
relationship_score_MMMF	Score on substitution/complementarity with MMMF (1–5 or N/A)
reserve_assets	Types of reserves mentioned (e.g., T-bills, MMMFs, deposits)
regulation_score	Regulatory stance score (-2 to +2)
regulation_justification	Explanation or quote supporting that score
function_of_stablecoins	List of use cases (e.g., payments, DeFi, trading)
risk_opportunity_score	Risk vs opportunity framing score (-2 to +2)
risk_opportunity_justification	Justification/quote framing the trade-off

Table A2 Variable Name and Description

4. **Prompting with LLM**. At this step, all episode transcripts were fed to the LLM to generate the survey responses, using the GPT-4o model with temperature parameter set to 0. The output is a set of 16 "indicators" for each episode. For each of these 16 prompts, if there is no content inside of the transcripts, by prompt design, the LLM model returns N/A and skips to the next prompt. Based on our final set of results, Table A3 shows how many episodes over the total 1662 episodes return nothing for a specific question. For example, only 246/1662 episodes returns N/A for the "sentiment_score" prompt. The "Loss%" is the percentage value and provides a relative indication on the extent to which the body of text submitted as an input to the survey is potentially informative about the question asked.

The table lists the 16 indicators in decreasing order of likelihood that the body of text associated with our sample of podcast episodes is informative about the question asked. The table shows that the survey should be significantly more informative than flipping a coin for most questions asked. In one case only, the data sample clearly is not large enough to provide a reliable answer to the question about the relationship between stablecoins and MMFs.

Indicator	N/A / TOTAL	Loss%
us_mentions	66 / 1662	4.00%
non_us_mentions	66 / 1662	4.00%
investor_explanation	72 / 1662	4.30%
sentiment_score	246 / 1662	14.80%
risk_opportunity_score	254 / 1662	15.30%

sentiment_description	257 / 1662	15.50%
risk_opportunity_justification	281 / 1662	16.90%
main_topics	346 / 1662	20.80%
regulation_score_bank_deposit	427 / 1662	25.70%
regulation_justification	445 / 1662	26.80%
function_of_stablecoins	448 / 1662	27.00%
perceived_benefits	545 / 1662	32.80%
perceived_risks	901 / 1662	54.20%
reserve_assets	1022 / 1662	61.50%
relationship_score_Bank Deposit	1104 / 1662	66.40%
relationship_score_MMMF	1618 / 1662	97.40%

Table A3 Loss Percentage of Full Sample Results

5. **Data Cleaning.** The LLM produces a raw data file (in JSON format) containing the responses to each prompt question. This file is then checked and converted to XLSX format for further processing.

   In the survey, the are 5 questions, which are "Main Topic", "Function of stablecoins", "Perceived Benefits", "Perceived Risks", and "Reserve Assets" that ask to return "short phrases." To minimize the risk of having duplicate entries and facilitate the analysis of phrase distributions, we further clean those answers by taking the following steps. First, we included the instruction *"Return short phrases and avoid duplication."* into these prompts. Second, we also manually merged and mapped phrases with similar meanings into homogeneous categories.

6. **Cross Validation.** To minimize the risk that the survey results are distorted by hallucination, two validation checks were implemented as follows. First, we re-prompted the model using content from a specific podcast episode on stablecoins by one of the paper authors and human-validated the survey results. The close alignment and accuracy of the LLM generated responses suggests that the LLM-based survey as designed can return results as intended, without major flaws or unidentified questions.

   Second, the model was run a second time, only retaining score-based questions and re-prompting. Agreement rates between the reported survey results and those obtained from a smaller less—hallucination prone set of prompts were then computed. Specifically, for each indicator, agreement rates were calculated by including all records where both the original score and the cross-validation score were present or both were missing (NaN).

Figure A2 illustrates that these agreement rates are high across all cross-validated prompts. The results suggest a high degree of consistency between the original and cross-validated scores for cases for which the responses are unequivocally comparable.
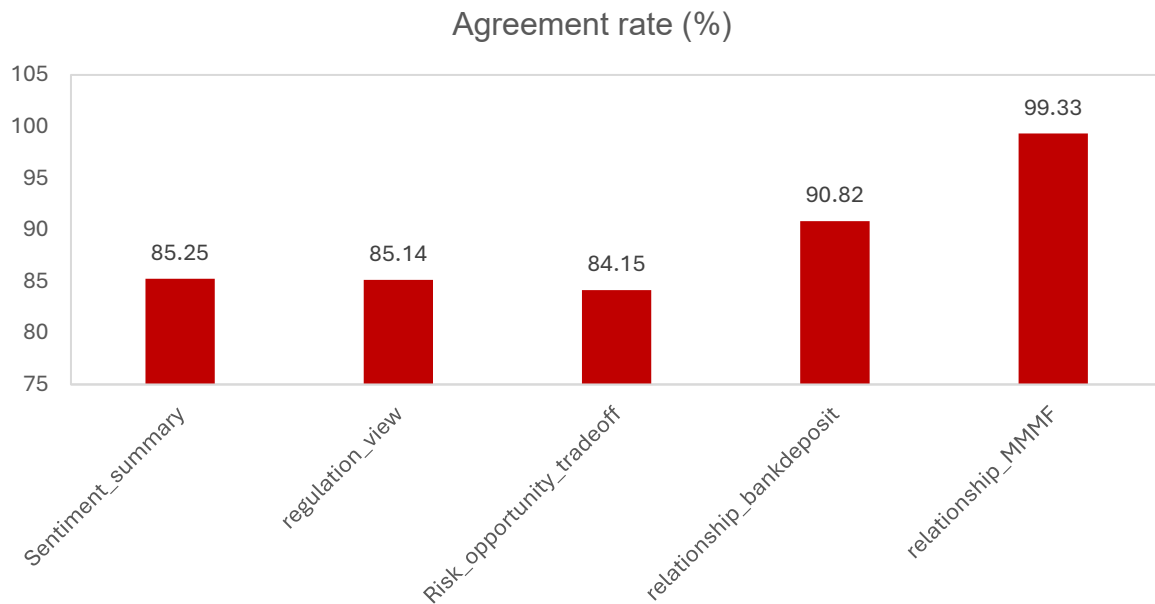

Figure A2. Agreement rates

Appendix B: Additional Survey Results

The following appendix reports all the survey results not reported in the main text, together with their respective "user prompt." The LLM dataset can be downloaded at: https://anderseninstitute.org/stablecoins-whitepaper.
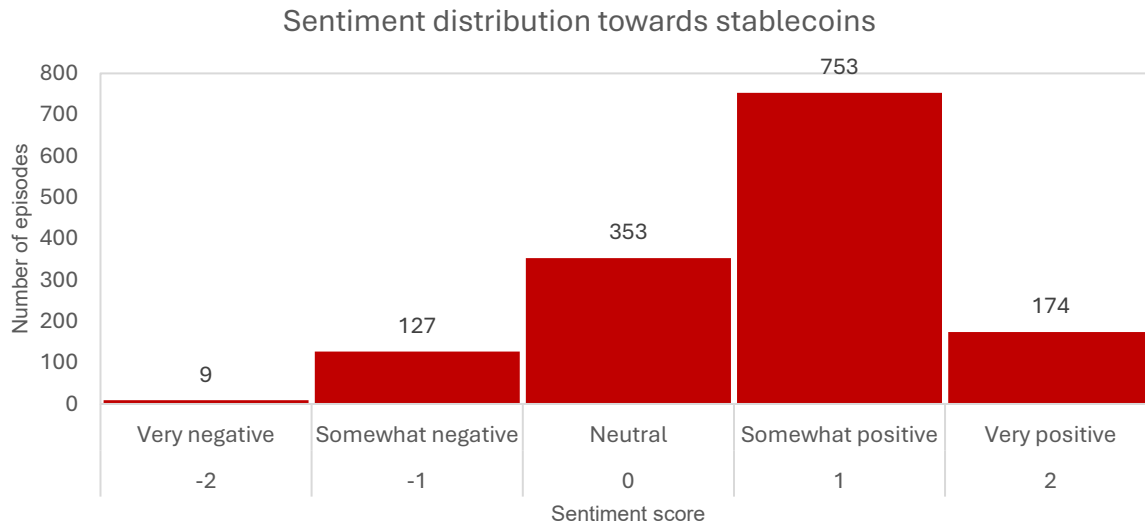
Sentiment distribution towards stablecoins

Figure A3. Distribution of Sentiment Score. The prompt question is: " On a scale from -2 to +2, how would you rate the speaker's sentiment toward stablecoins in this transcript? Use the following scale: -2 = Very negative (e.g., deeply critical, alarmed) ;-1 = Somewhat negative (e.g., skeptical, doubtful) ;0 = Neutral (e.g., descriptive, balanced, undecided); +1 = Somewhat positive (e.g., supportive, optimistic); +2 = Very positive (e.g., enthusiastic, strongly endorsing). Only return the number. Do not default to 0 unless the speaker is truly neutral. If there is **any tone, preference, or implicit bias**, even if subtle, assign the most plausible non-zero score. Favor making an interpretive judgment over returning 0 or 'N/A'. Only return an integer between -2 and +2.

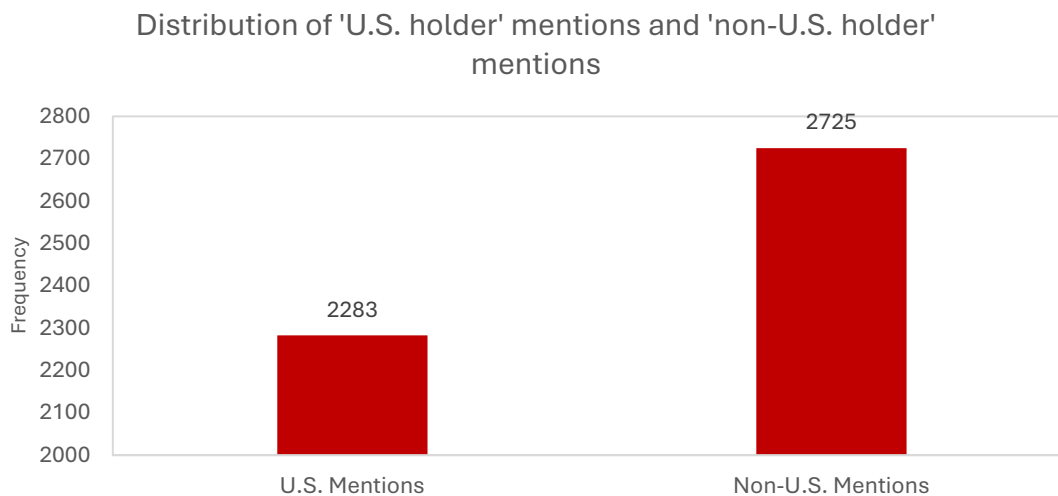## Distribution of 'U.S. holder' mentions and 'non-U.S. holder' mentions

Figure A4. Distribution of U.S. holders mentioned and Non-U.S. holders Mentioned. The prompt question is: "us_mentions": "In the transcript, how many times are stablecoin investors from the United States mentioned? Count any explicit country references such as 'U.S. investors', 'American users', or 'US adoption'"; "non_us_mentions": "How many times are stablecoin investors from outside the United States mentioned? Consider both specific countries (e.g., 'China', 'Singapore') and generic terms like 'foreign

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investors', 'international buyers', non-US, outside US.", "explanation": "Briefly explain how these counts were derived based on the geographic or national descriptors used in the transcript."
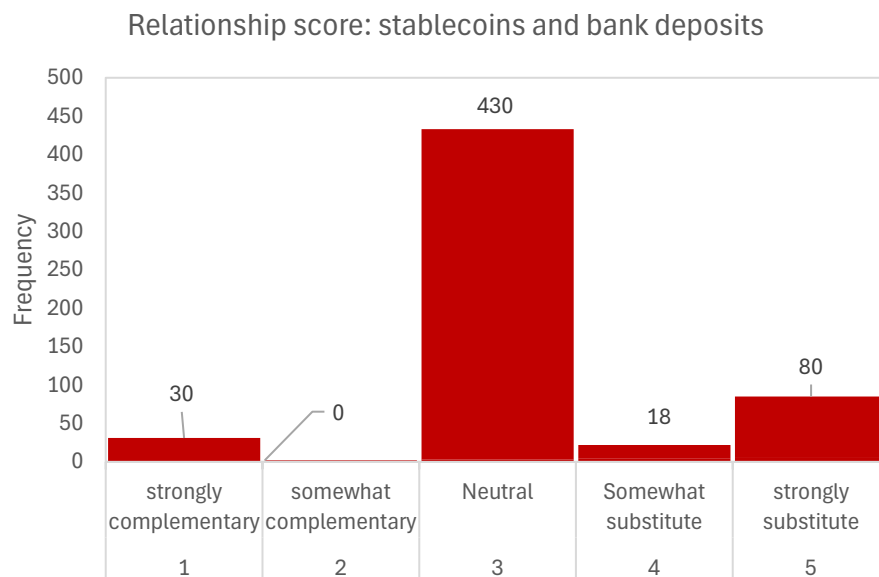

Figure A5. Relationship Score: Stablecoins and Bank Deposits. The prompt question is: How does the speaker characterize the relationship between stablecoins and bank deposits? Give a score from 1 to 5: 1 = strongly complementary, 3 = neutral, 5 = strongly substitute.", if not mentioned in the episodes, return N/A.

Figure A6. Relationship Score: Stablecoins and MMFs. The prompt question is: How does the speaker characterize the relationship between stablecoins and money market mutual funds? Give a score from 1 to 5: 1 = strongly complementary, 3 = neutral, 5 = strongly substitute. If not mentioned in the episodes, return N/A. Only return the number. Do not default to 0 unless the speaker is truly neutral. If there is **any tone,
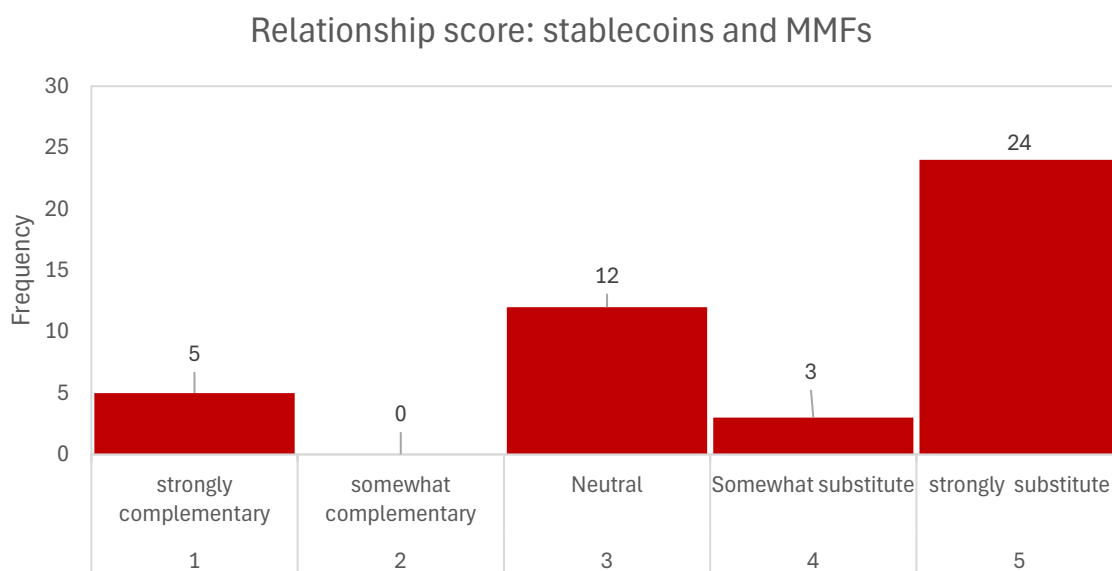
preference, or implicit bias**, even if subtle, assign the most plausible non-zero score. Favor making an interpretive judgment over returning 0 or 'N/A'."

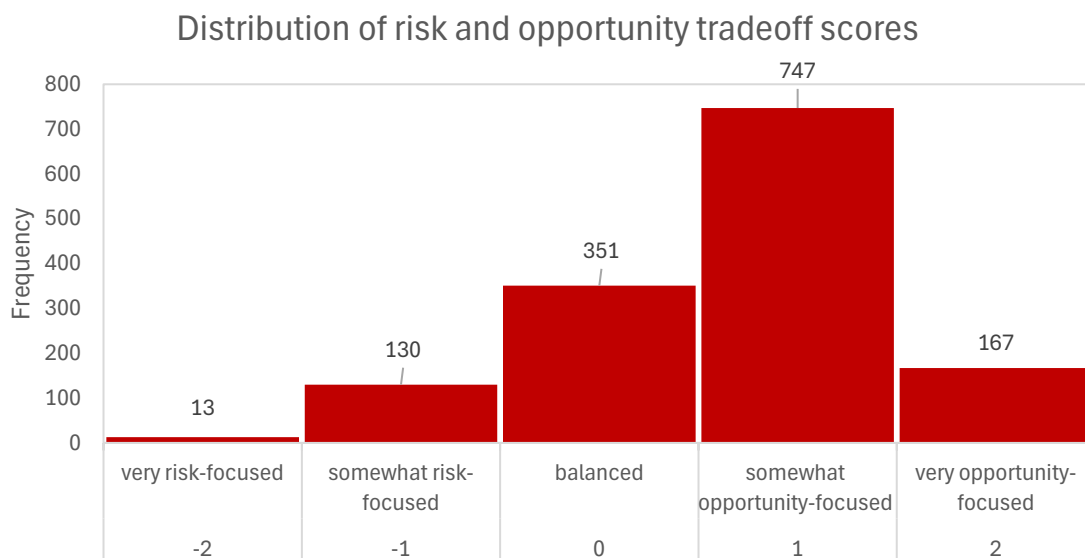## Distribution of risk and opportunity tradeoff scores

Figure A7. Distribution of Risk and Opportunity Tradeoff Scores. The prompt question is: How does the speaker weigh the risks versus opportunities of stablecoins as a financial innovation? "score": On a scale from -2 to +2, rate the speaker's emphasis:-2 = Very risk-focused (speaker emphasizes potential threats, failures, risks, costs, or downsides);-1 = somewhat risk-focused (mentions risks or expresses concerns more than opportunities or benefits, leaning toward costs with caveats);0 = balanced (equally weighs risks and benefits, or does not express a clear sentiment);+1 = somewhat opportunity-focused (mentions opportunities or expresses hopes more than risks or costs, leaning toward benefits with caveats);+2 = very opportunity-focused (strongly emphasizes gains, successes, benefits, opportunities, and upsides); Only return the number. Do not default to 0 unless the speaker is truly neutral. If there is any tone, preference, or implicit bias, even if subtle, assign the most plausible non-zero score. Favor making an interpretive judgment over returning 0 or "N/A". "justification": "Explain your reasoning using specific cues from the speaker's tone or content."

Appendix C: Local projections in Figure 8

This appendix provides detail on estimating impulse response functions in Figure 8 by local projections. Local projections (Jordà, 2005) are a popular empirical method to obtain the response of an endogenous variable to a shock to another variable assumed to be exogenous. Here, the assumption is that stablecoin market capitalization is still small enough relative to the size of the economy as a whole or the bitcoin market that we can take the fed funds rate and the bitcoin price as exogenous (i.e., not sensitive to changes in stablecoin market capitalization).

The sample period is from January 3, 2018 to September 6, 2025, and the data is sampled weekly. The dataset includes the aggregated market capitalization of seven dollar-backed

USD stablecoins with weekly data on the fed funds rate and bitcoin prices. The USD stablecoins are: USDC, USDT, TUSD, BUSD, FDUSD, PYUSD, and RLUSD.

The local projection regressions take the following form:

$$\ln\frac{MCap_{t+h}}{MCap_{t-1}} = \alpha_h + \beta_{h0}[FFR_t - FFR_{t-1}] + \sum_{l=1}^{4}\beta_{hl}FFR_{t-l} + \sum_{l=1}^{4}\gamma_{hl}\ln MCap_{t-l} + \epsilon_{t+h},$$

$$\ln\frac{MCap_{t+h}}{MCap_{t-1}} = \alpha_h + \beta_{h0}[\ln BTC_t - \ln BTC_{t-1}] + \sum_{l=1}^{4}\beta_{hl}\ln BTC_{t-l} + \sum_{l=1}^{4}\gamma_{hl}\ln MCap_{t-l} + \epsilon_{t+h},$$

where the first equation regresses logged h-week ahead changes in stablecoin market cap on an intercept term (α_h), the contemporaneous change in the fed funds rate, ($FFR_t - FFR_{t-1}$), four lags of the fed funds rate (FFR_t), and four lags of the logged stablecoin market cap ($\ln MCap_t$). Local projection regressions are estimated up to $H = 18$ weeks ahead, and the plotted cumulative impulse response functions are constructed from the sequence of β_{h0} estimates, where $h = 0, \dots, 18$ weeks. The second equation follows the same form, but the contemporaneous change in the fed funds rate is replaced with the contemporaneous change in logged bitcoin price ($\ln BTC_t - \ln BTC_{t-1}$), and the four lags of the fed funds rate are replaced with four lags of the logged bitcoin price ($\ln BTC_t$).

These equations are estimated to produce the left-panel and right-panels of Figure 8, respectively. The reported cumulative impulse responses of stablecoin market capitalization are scaled to a 25 basis point increase in the fed funds rate and a 20 percent decline in the price of bitcoin, respectively. The reported 95 percent confidence bands are adjusted for heteroskedasticity and autocorrelation.

Appendix D: Stablecoin growth scenarios and the impact on U.S. Treasury demand

This section discusses four possible stablecoin inflow scenarios, summarized in Table A4. Each scenario draws implications for US Treasury demand and other markets, if applicable. To aid the discussion, Figure A4 provides illustrative balance sheets of the main sectors in the U.S. economy. All scenarios assume that the Federal Reserve System does not respond to any ensuing change in bank reserve balances unless otherwise noted. Similarly, the analysis is predicated on no change to the U.S. dollar as the global reserve currency.

Households and Firms		Commercial banks		Money market funds	
Assets	**Liabilities**	**Assets**	**Liabilities**	**Assets**	**Liabilities**
USTs	Debt	USTs	Bank deposits	USTs	MMF Shares
MMFs	Other liabilities	Loans	Other liabilities	O/N RRP	
Bank deposits		Reserves		Other assets	
Physical currency		Other assets			
Stablecoins					
Other assets					

Stablecoin issuers		Federal Reserve	
Assets	**Liabilities**	**Assets**	**Liabilities**
USTs	Stablecoins	USTs	Physical currency
Bank deposits		Other assets	Reserves
Reverse repos			O/N RRP
			TGA
			Other liabilities

Figure A8. The figure illustrates summary balance sheets of key sectors of the U.S. economy that can be affected by reallocation of assets held by households and firms toward stablecoins.

From physical currency to stablecoins. If users switch from cash to stablecoins, currency in circulation falls and Treasury bill demand increases, as stablecoin issuers allocate some portion of inflows toward T-bills.[31] In this scenario, there is also an increase in banking system reserves and deposits, assuming that the Fed does not respond immediately to changes in reserves.[32] Estimates suggest that more than half of physical U.S. dollars lie outside the United States (Judson, 2024). Given the global appeal of USD stablecoins, it is plausible that some fraction of domestic and foreign holders of physical U.S. dollars adopt USD stablecoins.

From deposits to stablecoins. If existing bank depositors migrate to stablecoins, the net impact on Treasury demand is also likely to be positive. However, demand for longer-term Treasury notes and bonds could decrease if banks fund deposit outflows by reducing their long-term Treasury holdings. As a result, stablecoin growth fueled by migration from

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[31] If stablecoin issuers purchased T-bills in the secondary market, deposits and reserves move from the stablecoin issuer's bank to the counterparty's bank. If stablecoin issuers purchased T-bills in the primary market, then bank system reserve balances decline and the Federal Reserve TGA balance rises in the short-run, and these TGA balances would eventually redistribute back into the banking system.

[32] However, if we assume instead that the Fed responds to the increase in reserves in the medium run by selling assets, then a reallocation from cash to stablecoins would not necessarily increase bank system reserves and deposits. It would also result in a reduction in demand for long-term securities held by the Fed, of which the majority are Treasuries. If the Fed reduces reserves in the long run, but less than 1-for-1, then there could still be a net increase in Treasury demand and system reserves.

bank deposits may differentially impact the short and long end of the U.S. Treasury yield curve.

Banks in aggregate hold roughly 8 percent of their total assets in long-term Treasuries with very little short-term Treasury holdings, while stablecoin issuers hold roughly half of their reserves in short-term Treasuries.[33] If the bank sector faced deposit outflows and reduced its Treasury holdings proportionately while stablecoin issuers purchased reserve assets proportionately, net demand for Treasuries could increase.[34] Net demand for Treasuries would further increase if deposit outflows were concentrated among smaller banks, which hold less than 4 percent of their total assets in Treasuries. If banks reduce other assets to fund deposit outflows, such as loans, then stablecoin growth from deposits could negatively impact bank credit provision.

From MMFs to stablecoins. Like stablecoin issuers, government MMFs have roughly half their assets invested in T-bills. Thus, assuming proportionate changes in assets suggests that inflows into stablecoins from MMFs will likely be neutral for Treasury demand, as T-bill holdings simply shift from MMFs to stablecoin issuers. An exception arises if MMFs disproportionately reduce their overnight reverse repos with the Fed to fund outflows into stablecoins (instead of reducing their assets proportionately). Stablecoin issuers may then invest these inflows into T-bills, resulting in an increase in Treasury demand. Currently, however, MMFs have very little in reverse repo positions with the Fed.

From foreign currency to stablecoins. Given the prominent role of USD stablecoins outside the U.S., major flows may come from abroad. As stablecoin issuers receive inflows from abroad and reserve portfolios expand, T-bill demand rises, and the necessary currency conversion may impact the U.S. dollar exchange rate.

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[33] Commercial bank statistics are from Federal Reserve Form H.8.
[34] It is also plausible that banks choose to reduce more liquid assets when facing outflows, which could result in a disproportionately larger reduction in their Treasury holdings and a smaller reduction in less liquid assets.

Origin of flows into stablecoins	Current Market size	Approx. impact on UST securities through stablecoins	Impact details
USD cash in circulation	$2.4T	Demand ↑ without Fed response Yield curve impact	Stablecoin issuers buy short-term USTs Fed possibly reduces long-term USTs
Bank deposits	$3.8T+	Demand ↑ Yield curve impact	Stablecoin issuers buy short-term USTs Banks possibly reduce long-term USTs Stablecoin issuers buy more than banks sell
Govt MMF assets	$6.3T	Demand neutral	Stablecoin issuers buy and MMFs sell evenly
Foreign money or credit creation	-	Demand ↑	Possible impact on U.S. dollar exchange rate

Table A4. The table summarizes possible flow scenarios associated with stablecoin market growth and development. Market size statistics refer to the current outstanding nominal value of the source market as of August 2025. The $3.8T bank deposits refers to the total outstanding amount of non-interest bearing deposits and does not include $13.9T of interest-bearing deposits. The $6.3T of government MMF assets does not include prime MMF assets. O/N RRP refers to the Fed's overnight reverse repo facility. Source: FRED, FDIC, and OFR.