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No. 738

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Stablecoins as Private Money: A Policy Agenda

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Stablecoins as Private Money: A Policy Agenda*

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This Version: January 2026

Abstract

Stablecoins are rapidly expanding as money-like assets for payments, trading, settlement, and cross-border transfer. In response, policymakers are moving quickly to develop new regulatory frameworks to safeguard the monetary and financial system. This article develops a forward-looking, research-based policy agenda for stablecoins, drawing on monetary theory, recent market developments (including stress events), our own analytical framework, and the broader academic literature. In our view, a world in which stablecoins reach scale requires a coherent package of measures: tools to preserve financial stability and resilience against liquidity crises; protections for monetary sovereignty and the singleness of money; rules on stablecoin remuneration; constraints on platform market power alongside interoperability requirements; robust financial-integrity rules; and international coordination to limit regulatory arbitrage and close cross-border loopholes such as multi-issuer structures. We also highlight several areas that require further evaluation prior to policy adoption, including whether (and under what conditions) a public liquidity backstop for systemic issuers or central-bank reserve access is warranted, as well as modernization pathways within the traditional monetary system. We benchmark our agenda against the U.S. GENIUS Act and the EU's MiCA and provide a cross-jurisdictional comparison.

Keywords: Stablecoins, Private digital money, Regulation and policy, MiCA, GENIUS Act

JEL Classification: E4, E5, G1, G2

*We are grateful to Mirjam Eggen and Giacomo Maggiore for helpful comments and suggestions.

Executive Summary

Stablecoins are evolving from a niche tool for crypto trading into widely used, money-like assets for payments, settlement, and cross-border value transfer. Their rapid growth has been driven mainly by fiat-backed coins, which aim to maintain par convertibility into a reference currency (typically the U.S. dollar). As a modern form of private digital money, a stablecoin's stability relies on confidence in the issuer and the credibility of redemption. Stress episodes have shown that even fiat-backed stablecoin designs can become fragile once questions arise about the quality and liquidity of reserves, custody arrangements, or the legal enforceability of redemption.

This paper provides a research-based overview of stablecoins and develops a forward-looking policy agenda. Building on monetary theory (including classic models of bank runs), historical parallels (private note issuance and free banking), recent empirical evidence, and our own analytical framework, we highlight the core regulatory questions raised by stablecoins. A distinctive feature is their combination of (i) par redemption promises and (ii) continuous secondary-market trading (van Buggenum, Gersbach and Zelzner, 2023). More precisely, their token-based circulation as digital bearer instruments shapes run dynamics, contagion channels, and market structure in ways that traditional bank-style tools and frameworks do not fully capture.

Our core message is that effective stablecoin regulation cannot be reduced to a single rule; it requires a coherent package of mutually reinforcing safeguards. At a minimum, stablecoins intended to function as money require clear legal foundations (enforceable redemption rights and robust insolvency treatment), conservative and transparent reserve management, and credible operational arrangements that make par convertibility reliable in practice. When stablecoins reach critical scale, additional policy choices become first-order: whether issuers should be permitted (and under what conditions) to hold central bank reserves; whether a narrowly tailored public liquidity backstop is warranted for systemic issuers; how to preserve the singleness of money through interoperability and well-designed clearing and settlement arrangements; how to limit currency substitution and protect monetary sovereignty; how to constrain platform market power; and how to address financial-integrity risks without undermining legitimate privacy.

We translate these objectives into a set of thirteen policy recommendations (in blue) and issues for further evaluation (in amber):

P.1 Establish legal clarity and enforceability of redemption rights.

P.2 Ensure robust reserve safeguards and transparent reserve disclosures.

P.3 Examine the case for central-bank reserve access for regulated stablecoin issuers.

P.4 Examine the case for a public liquidity backstop for regulated systemic issuers.

P.5 Mitigate platform market power and promote interoperability.

P.6 Protect monetary sovereignty and limit currency substitution.

P.7 Preserve the singleness of money.

P.8 Regulate interest payments on stablecoins.

P.9 Examine stress-contingent redemption barriers.

P.10 Prevent criminal abuse while preserving user privacy.

P.11 Address regulatory gaps such as multi-issuer stablecoins.

P.12 Align international regulatory frameworks.

P.13 Explore options to modernize the traditional monetary system.

Finally, we benchmark this policy agenda against the emerging regulatory landscape, most notably the EU's MiCA framework and the U.S. GENIUS Act, which represent a clear shift toward dedicated stablecoin regimes with minimum standards for reserves, redemption, and oversight. We emphasize, however, that the ultimate test will be implementation, supervision, and the ability of policymakers to close cross-border loopholes as market structure adapts. Because stablecoin adoption could accelerate quickly, regimes should pair baseline requirements with predefined thresholds based on scale and systemic importance, enabling regulators to tighten oversight and safeguards as usage grows.

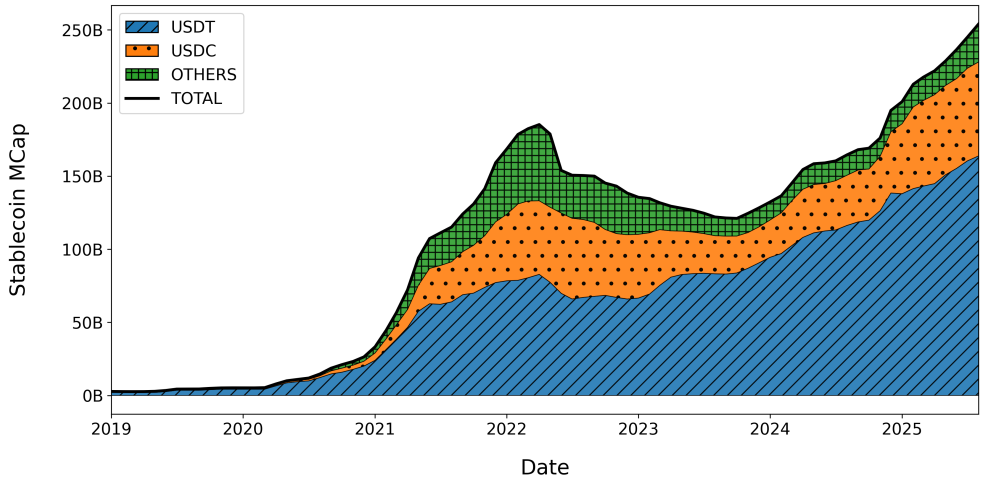
A robust path forward is likely a balanced one: disciplined stablecoin regulation, in parallel with evaluating modernization pathways for the traditional monetary and payments system (including tokenized deposits, wholesale settlement upgrades, and appropriately designed CBDCs or hybrid arrangements), so that efficiency gains do not come at the expense of stability, integrity, or monetary control.

1 Introduction

Stablecoins are digital assets designed to maintain a stable value relative to a reference asset, typically a national fiat currency like the U.S. dollar. Prominent examples of stablecoins include Tether (USDT) and USD Coin (USDC), which are backed by reserves of dollar-denominated assets and promise convertibility at par (1 token = 1 USD). In some ways, these tokens resemble traditional bank deposits or shares in money market mutual funds (MMFs), promising a digital means of payment and store of value with minimal price fluctuation.[1]

Stablecoins emerged in the mid-2010s, but remained relatively niche until the onset of the COVID-19 pandemic in 2020 marked a turning point. Investors, spooked by turmoil in traditional markets and seeking safe havens for crypto-trading liquidity, flocked to stablecoins. The total stablecoin market capitalization rocketed from roughly $5 billion in early 2020 to over $250 billion by 2025—more than a 50-fold increase (see Figure 1). Most of this early growth was driven by USDT, but by 2021 also dozens of new stablecoins had launched, including not only fiat-backed ones but also crypto-collateralized (e.g. Dai) and "algorithmic" (e.g. TerraUSD) types. As of late 2025, fiat-backed stablecoins (like USDT, USDC) dominate about 90% of the market.

Figure 1: Stablecoin Market Capitalization



Source: Calculations based on data from coingecko.com and sentora.com.

The appeal of stablecoins is clear: they promise to combine the features of crypto (fast and

[1]To situate stablecoins within the broader landscape of digital money, the BIS (2025) offers a useful taxonomy that distinguishes between account- and token-based models as well as public versus private issuance. Within this framework, stablecoins are a form of privately issued, token-based money that, at least until recently, often operated outside the perimeter of traditional banking and securities regulation. By contrast, institutional alternatives such as tokenized deposits and CBDCs reflect efforts to digitize money within established financial infrastructures.

low-cost transactions, especially cross-border, and programmability via smart contracts) with the stability of traditional forms of money. However, stability is not always guaranteed. In practice, even fiat-backed stablecoins have broken their pegs under stress. A comprehensive study by the BIS, examining 68 stablecoins over the past decade, found that "not one of them has been able to maintain parity with its peg at all times", regardless of size or design (Kosse, Glowka, Mattei and Rice, 2023). That said, the two largest fiat-backed stablecoins—USDT and USDC—have exhibited relatively resilient performance in recent years, typically trading within a narrow band around their pegs.[2]

By contrast, algorithmic and uncollateralized stablecoins have proven far more fragile. The most dramatic failure occurred in May 2022, when TerraUSD (UST), an algorithmic stablecoin with no real backing, collapsed from $1 to a few cents, wiping out billions. TerraUSD's failure sent shockwaves across the crypto ecosystem. Unbacked stablecoins lost almost all value, and even major fiat-backed coins saw market capitalization declines as some investors exited the sector (Figure 1). These events underscore that stablecoins can be subject to runs and contagion, much like bank deposits or MMFs during traditional financial crises.

Recent regulatory developments have begun to bring stablecoins into the mainstream. The European Union's Markets in Crypto-Assets (MiCA) regulation, effective from 2024, and the United States' GENIUS Act, signed into law in July 2025, introduce comprehensive frameworks for the issuance and oversight of stablecoins. These initiatives aim to strengthen reserve backing, redemption rights, and supervisory clarity, thereby moving stablecoins closer to, and potentially enabling their integration into, the regulated financial system. Market reactions suggest a clear impact: total stablecoin capitalization has rebounded sharply in 2024–2025 (Figure 1), with growing participation from traditional financial institutions.

In sum, stablecoins have rapidly evolved from a niche concept to a central pillar of the crypto ecosystem and now stand at the threshold of broader adoption in mainstream transactions and financial services. Their growth reignites age-old questions about private money: Can privately issued monies reliably maintain stable value? What happens when multiple private monies compete and scale? And how should policymakers oversee this new wave of digital money issuance to safeguard monetary sovereignty, financial stability, and the integrity of the financial system?

Outline. To structure our analysis of these questions, the remainder of this paper is organized as follows. Section 2 reviews stablecoin fundamentals and key design choices; surveys the latest academic research on stablecoins' implications for financial stability, monetary sovereignty, and the structure of the banking and payments system; and summarizes our own contribution on

[2] A notable exception occurred in March 2023, when USDC experienced a short but significant depegging following the collapse of Silicon Valley Bank (SVB). We return to this episode in Section 2.3.

secondary-market trading and contagion dynamics when multiple stablecoins compete on yield. Building on these insights, Section 3 develops a policy agenda by distilling key implications and highlighting open issues that remain to be addressed by regulation. It also assesses how emerging regulatory frameworks, most notably the U.S. GENIUS Act and the EU's MiCA, already approach these issues, and where gaps and trade-offs remain. Finally, Appendix A provides a detailed analysis and comparison of MiCA and the GENIUS Act, together with a broader cross-jurisdictional review including Switzerland and the United Kingdom.[3]

2 Overview and Academic Literature

2.1 Theoretical and historical background

Stablecoins can be understood as a new form of inside money: money created by private intermediaries rather than the central bank (outside money). This concept has deep roots in monetary theory: Diamond and Dybvig (1983) and Bryant (1980) first modeled how banks issuing redeemable claims provide short-term liquidity, but at the cost of making themselves vulnerable to runs. Their classic bank-run framework, extended by many (e.g. Jacklin, 1987; Goldstein and Pauzner, 2005; Uhlig, 2010; Altermatt, van Buggenum and Voellmy, 2024), provides a tool to analyze stablecoins, which similarly entail short-term liabilities redeemable at par against a portfolio of assets.

Notably, Jacklin (1987) shows that the existence of a secondary market for bank liabilities (i.e., the deposit contract becoming tradable) or direct access to banks' investment assets can disrupt the liquidity insurance banks provide. This is directly relevant because stablecoins, unlike bank deposits, trade freely on secondary markets (crypto exchanges) even while being redeemable on demand, a feature that both affects liquidity and alters run mechanics. We will elaborate on these mechanisms in Section 2.4, drawing on our own theoretical framework (van Buggenum *et al.*, 2023).

Free banking and private currency competition. The emergence of stablecoins has also drawn parallels to historical episodes of free banking and private currency competition. In the 19th century, private banks in countries like Scotland, Canada, Switzerland, and the United States issued their own banknotes redeemable for specie—though with markedly different outcomes in terms of monetary stability, efficiency, and regulatory effectiveness.

A large literature examines the performance of these systems, the features that shaped their trajectories, and the broader lessons they offer for private money issuance (for a survey, see White, 2014). While some free banking regimes, most notably in Scotland and Canada,

[3] A substantially shorter version of this article appeared as a chapter in the 2025 CEPR e-book *Frontiers of Digital Finance* (Gersbach, van Buggenum and Zelzner, 2025).

exhibited remarkable stability and market discipline, others, particularly in parts of the United States, were plagued by wildcat banking, runs, and systemic fragility. Against this backdrop, Gorton and Zhang (2021) argue that stablecoin issuers resemble modern-day free banks, issuing digital demand liabilities largely outside the regulatory perimeter. In their view, absent proper safeguards, stablecoins are vulnerable to the same credibility and coordination failures that plagued historical private currencies. To preserve trust and financial stability, they advocate subjecting stablecoin issuers to prudential oversight akin to that applied to banks.

The idea of free banking is newly relevant for understanding stablecoin competition. Several theoretical contributions highlight that such systems may lead to inefficiencies, particularly due to over-issuance and limited commitment. Gersbach (1998) shows that competitive pressures can result in excessive money creation. Search-theoretic and dynamic models by Cavalcanti and Wallace (1999b, 1999a), Cavalcanti, Erosa and Temzelides (1999, 2005), and Williamson (1999) examine how enforcement, liquidity, and matching frictions shape the performance of private monies. Other studies incorporate contractual frictions and systemic risk (Aghion, Bolton and Dewatripont, 2000; Berentsen, 2006; Martin and Schreft, 2006), showing that the structure and governance of monetary instruments critically influence outcomes.

The recent literature on stablecoins builds firmly on these theoretical foundations. It treats stablecoins as the latest iteration of privately produced money, subject to many of the same fundamental challenges of liquidity, confidence, and coordination that have long been studied in monetary economics and banking theory.

2.2 Stablecoin design

Designing a cryptocurrency that retains a stable value is a central challenge. The literature identifies several types of stablecoins, each with distinct mechanisms to maintain the peg.

Fiat-backed stablecoins. By far the most prominent category is fiat-backed stablecoins, where each coin is backed by safe assets (such as bank deposits, Treasury bills, or cash equivalents). These stablecoins currently dominate the market and are therefore the primary focus of regulatory debate, academic research, and our own analysis throughout this chapter.

The design of fiat-backed coins is conceptually similar to an MMF, and its stability hinges mainly on the quality and liquidity of reserves (van Buggenum *et al.*, 2023; Oefele, Baur and Smales, 2024a). If reserve assets are not unquestionably safe (for instance, if they include risky or opaque investments), users may question the coin's value and it will fail to trade at par. In fact, Gorton and Zhang (2021) argue that questions regarding the quality of backing assets prevent current stablecoins from being truly money-like.

Crypto-collateralized stablecoins. A second category is crypto-collateralized stablecoins,

which aim to maintain price stability by locking volatile crypto-assets (typically ETH or BTC) as overcollateralized backing. Issuance and redemption are governed by smart contracts that mint and burn the coin, enforce collateral requirements, and trigger liquidations when necessary, thereby minimizing reliance on traditional financial intermediaries. DAI, the largest stablecoin of this type, plays a central role in the decentralized finance (DeFi) ecosystem and is widely used for lending, borrowing, and on-chain settlement (Dionysopoulos and Urquhart, 2024).

While a crypto-backed design enables transparency and seamless DeFi integration, it also exposes the system to collateral volatility, liquidity shortfalls, and governance risks. Klages-Mundt and Minca (2021) model deleveraging spirals in such systems, showing how falling collateral prices can trigger forced liquidations, drying up liquidity and amplifying instability. Qin, Zhou, Gamito, Jovanovic and Gervais (2021) empirically document how existing liquidation mechanisms, especially MakerDAO's auction-based model,[4] tend to favor liquidators, often at borrowers' expense, and become particularly fragile under blockchain congestion. Gudgeon, Perez, Harz, Livshits and Gervais (2020) add that crypto-backed systems face further vulnerabilities from governance attacks and may become undercollateralized during liquidity stress, posing risks of financial contagion.

To mitigate these risks, Qin, Ernstberger, Zhou, Jovanovic and Gervais (2023) propose an alternative design using reversible call options in place of forced liquidations. Lyons and Viswanath-Natraj (2023) show that DAI exhibited larger and more persistent peg deviations than fiat-backed stablecoins, but highlight the 2020 introduction of DAI's Peg Stability Module (PSM), a smart-contract-based arbitrage facility enabling 1:1 USDC-DAI swaps, as a significant stabilizing mechanism.[5] Their findings underscore the broader importance of arbitrage design in maintaining peg integrity.[6]

Overall, while crypto-backed stablecoins avoid fiat custody, these stability challenges, the absence of a direct redemption mechanism into fiat, and broader operational complexities may hinder adoption beyond crypto-native users.

Algorithmic stablecoins. A third category is algorithmic stablecoins, which aim to maintain a price peg primarily through rule-based supply and incentive adjustments (e.g., mint or burn, rebasing, variable fees), rather than through external asset backing.[7] The canonical example

[4]DAI is issued by the Maker protocol, which is governed by the decentralized autonomous organization (DAO) MakerDAO. Users generate DAI by locking collateral in Maker vaults.

[5]DAI was initially backed exclusively by crypto-assets such as Ethereum. Over time, its collateral base has diversified to include fiat-backed stablecoins and real-world assets, both tokenized and non-tokenized, via MakerDAO's collateral onboarding process. While this has enhanced stability, it has also raised concerns over centralization and regulatory risk (Oefele, Baur, Smales and Viswanath-Natraj, 2024b).

[6]A structurally distinct approach is proposed by Cao, Dai, Kou, Li and Yang (2025), who design a smart-contract-based stablecoin architecture that uses tranching and automatic resets to redistribute risk across multiple token classes. While backed by crypto collateral, their design departs from MakerDAO-style vault systems by structuring token exposures ex ante, akin to structured finance products.

[7]Some implementations are hybrid, holding partial collateral or discretionary reserve backstops; classification

was TerraUSD, which, prior to its downfall, was among the top five stablecoins by market capitalization. It relied on arbitrage with its volatile sister token, LUNA, to maintain a $1 peg. While initially effective, this design proved fragile: UST collapsed in May 2022 in a run-like dynamic, vividly illustrating the risks of shifting volatility onto a secondary token without collateral backing. Uhlig (2022) models the event as a gradual run, driven by agent-specific thresholds and evolving beliefs about the likelihood of a suspension of convertibility. Briola, Vidal-Tomás, Wang and Aste (2023) emphasize Terra's dependence on the high-yield Anchor protocol, which amplified systemic fragility.

Lee, Lee and Lee (2023) document broader spillover effects across crypto markets, and Kurovskiy and Rostova (2023) highlight how the lack of direct redemption into fiat and reliance on endogenous collateral (LUNA) undermined price stability. Zhao, Li and Yuan (2021) provide a formal framework to model algorithmic stablecoin protocols and empirically show that volatility is often an inherent feature of these designs, not just a failure mode. Krause (2025) surveys design flaws across algorithmic stablecoins and proposes hybrid models to mitigate their vulnerabilities, while Fu, Wang, Yu and Chen (2024) analyze such designs as rational Ponzi games sustained only by ongoing demand and belief in future convertibility. Mayer (2022) develops a theoretical model of dual-token platforms that distinguishes between a price-stable transaction token (a stablecoin) held by users and a risky governance (equity) token held by speculators. The analysis shows that unbundling transactional and investment functions can support platform financing and stablecoin peg support, but it also makes resilience hinge on speculator sentiment—which can reverse sharply in downturns.

The Terra crash crystallized a broader insight: algorithmic stablecoins without robust collateral are prone to self-reinforcing breakdowns, where small shocks erode confidence and trigger price spirals with no natural floor. In the aftermath of Terra's collapse and as of late 2025, no algorithmic stablecoin remains in widespread use.

2.3 Peg stability, runs and financial fragility

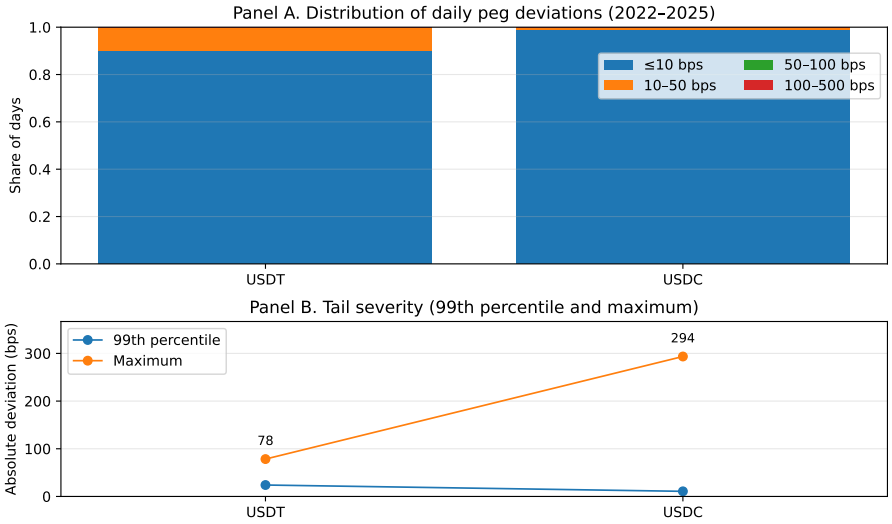
A core concern in the literature is financial fragility: To what extent are stablecoins prone to runs or depegging under stress? Empirically, major fiat-backed stablecoins have maintained relatively tight pegs most of the time in daily data, although deviations from par are not literally zero (Figure 2; see also Kosse *et al.*, 2023).

Importantly, however, intraday deviations can be materially larger than what end-of-day data suggest. A concrete example is the brief but sharp secondary-market discount of USDC around the failure of Silicon Valley Bank (SVB) in March 2023.[8] Figure 3 illustrates the dy-

hinges on the strength and redeemability of those reserves.

[8] Circle, the issuer of USDC, held around $3.3 billion—roughly 8% of its total reserves—at SVB. When SVB was

Figure 2: Peg Stability for USDT and USDC (end-of-day, 2022–2025).



Source: CoinMetrics (PriceUSD at daily frequency; end-of-day UTC reference price).

Note: Panel A shows the share of days in which the absolute deviation from USD par, $|p-1|$, falls within selected bands (basis points). Panel B reports tail severity using the 99th percentile and the maximum absolute deviation.

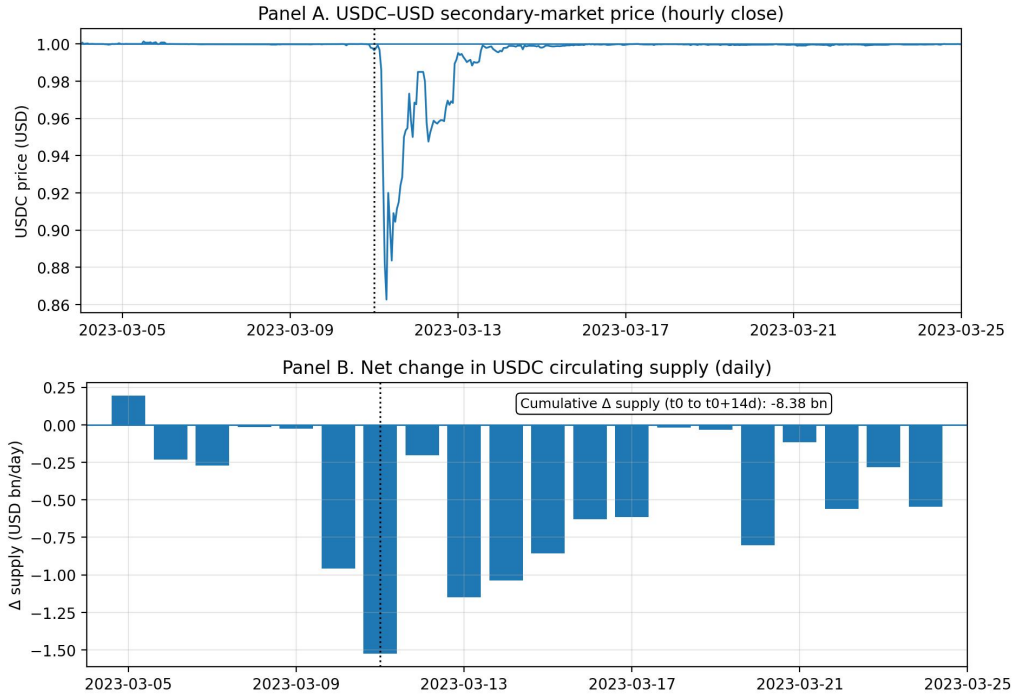
namics and makes clear that run risk is not hypothetical. Panel A shows that USDC traded well below par, with a minimum hourly close of roughly $0.86. Panel B shows a sharp contraction in USDC circulating supply over subsequent days, consistent with large net redemptions and highlighting the tight interaction between discounts in secondary markets and redemption requests in the primary market. Over the two weeks following the event, circulating USDC supply declined by about 8.4 bn (Panel B), underscoring that even a major fiat-backed stablecoin can face rapid, large-scale outflows once confidence is impaired.

In many respects, stablecoin runs are akin to those on banks and money market funds. Just like money market funds "broke the buck" in 2008 (triggering a run on MMFs), a stablecoin can break its peg if reserve assets lose value or if holders suddenly lose confidence and rush to redeem. Recent work also explores other sources of fragility. D'Avernas, Maurin and Vandeweyer (2022) develop a dynamic model of stablecoin platforms where fragility arises not from coordination failures among stablecoin holders, but from the platform's inability to credibly commit to repurchases. When demand collapses and future seigniorage becomes insufficient, even a fully committed issuer may be unable to maintain the peg. Their results underscore the importance of collateral and decentralized issuance in restoring credibility.

In a complementary approach, Li and Mayer (2025) develop a continuous-time model of

placed into receivership and access to these funds was temporarily frozen, uncertainty about reserve recoverability persisted until U.S. authorities announced that all SVB deposits would be guaranteed.

Figure 3: USDC-SVB Episode: Secondary-market Price and Net Supply Change



Source: Bitstamp (USDC/USD price); CoinMetrics (USDC circulating supply, SplyCur).

Note: Panel A plots the USDC-USD secondary-market price (hourly close of 1-hour OHLC candles) around March 11, 2023 (vertical line). Panel B plots the daily change in USDC circulating supply, interpreted as net minting/redemptions (negative values indicate net redemptions).

stablecoin issuance and uncover an "instability trap": once depegging occurs, it erodes users' transactional benefits, causing stablecoin demand and usage to fall. This reduces the issuer's seigniorage precisely when it is most needed to rebuild net worth and restore the peg, slowing recovery and making price volatility persist. Empirically, Eichengreen, Nguyen and Viswanath-Natraj (2025) estimate the market-implied probability of Tether devaluation using futures data. They find that, on average, markets assign an annualized probability of around 0.60% that Tether will lose its peg, with sharp increases during stress episodes.

Information frictions and coordination failures. Other approaches highlight the role of information frictions and coordination failures. Bertsch (2023) applies a global games framework in which investors receive noisy signals about the issuer's fundamentals and decide whether to redeem. A run occurs when public confidence or reserve quality falls below a critical threshold. His model highlights how transparency, network effects, and user heterogeneity jointly determine run risk, and how broader adoption can either stabilize or destabilize the peg depending on user composition.

Ahmed, Aldasoro and Duley (2025a) uncover a counterintuitive effect of transparency in

fragile stablecoin environments. They show that disclosures can sometimes backfire: releasing adverse reserve information may fuel preemptive redemptions and accelerate a run. Combining theory and empirics, they find that transparency reduces run risk when investors' prior beliefs are positive, but can trigger coordination on a run when doubt already prevails. The results suggest that stablecoin issuers and regulators should carefully consider the timing, frequency, and content of financial statement disclosures to avoid unintended destabilization.

The role of secondary markets. A distinguishing feature of stablecoin issuers compared to traditional intermediaries is the presence of an active secondary market for stablecoins. Even if direct issuer redemption is delayed or uncertain, holders can trade coins among themselves. van Buggenum *et al.* (2023) highlight the joint dynamics of these primary (issuer redemption) and secondary markets in a run scenario, as we will discuss in more detail in Section 2.4.

Overall, the emerging consensus is that financial fragility is inherent to stablecoins unless robust safeguards and regulations are in place. This fragility closely parallels that of traditional intermediaries, reinforcing that stablecoins face many of the same challenges long associated with private money creation.

2.4 Competition and contagion in stablecoin markets

We examine in our own research how a fiat-backed stablecoin should be designed to be truly stable, and whether competition among stablecoins leads to stable and efficient market outcomes.[9] Investors in our model hold stablecoins to insure themselves against idiosyncratic liquidity shocks that determine their (random) investment horizons. A distinctive feature of our model is that it explicitly incorporates the dynamics of secondary market pricing and their interplay with issuer redemption policies. As liquidity shocks materialize, investors can not only redeem coins with the issuer at par, but also liquidate holdings via the secondary market.

Focusing on how our analysis guides regulation, we highlight two central insights: (i) redemption barriers can prevent self-reinforcing runs and stabilize individual stablecoins, and (ii) interest-bearing stablecoins introduce contagion and coordination problems that can undermine the stability and efficiency of the broader ecosystem.

Run dynamics and redemption limits. A widely held view is that stablecoin issuers should operate akin to narrow banks, maintaining full backing with high-quality liquid assets to ensure immediate redemption at par. Our research offers a more nuanced perspective on these liquidity requirements. Specifically, we show that even if a stablecoin is partially backed by illiquid assets (modeled as "trees" in the spirit of Lucas, 1978), issuer-run risk can be prevented through the

[9] Related but within a different framework, Fernández-Villaverde and Sanches (2019) analyze whether competition in private digital currencies can be compatible with price stability and efficient money supply.

use of well-designed redemption limits, that is, rules that effectively cap redemptions during periods of stress, akin to a temporary suspension of convertibility in the Diamond–Dybvig framework.[10]

While Engineer (1989) demonstrates that such redemption restrictions are ineffective in multi-period banking models, since depositors may preemptively run to avoid future illiquidity, this logic does not directly apply to stablecoins. The key distinction lies in the presence of *active secondary markets* for stablecoins, which allow holders to liquidate their positions even when issuer redemptions are constrained. This market-based, rather than issuer-based, liquidity unravels the incentive to front-run others in a redemption queue, thereby preventing the run dynamic.

Our model formalizes this intuition. We show that stablecoins that overcommit to servicing redemptions in the primary market are vulnerable to episodes of increased secondary market volatility. The core issue is that such redemption policies can cause reserve assets to contract too fast relative to the stock of circulating coins in the event of a run. Anticipating this dynamic, market participants begin to question the issuer's ability to sustain the peg, prompting the stablecoin to immediately trade at a discount in secondary markets. This discount, in turn, creates a profitable carry-trade strategy: investors can buy tokens below par in the secondary market and redeem them at face value with the issuer. The result is a self-reinforcing surge in redemption requests, which further drains reserves and exacerbates the loss of peg credibility. Figure 4 illustrates this dynamic. If, at time t_s, the stablecoin's secondary market price q_t drops unexpectedly below the peg x_t, excessive redemptions follow. The ratio of reserve assets a_t to circulating coins d_t deteriorates rapidly, causing the peg to break and never fully recover.

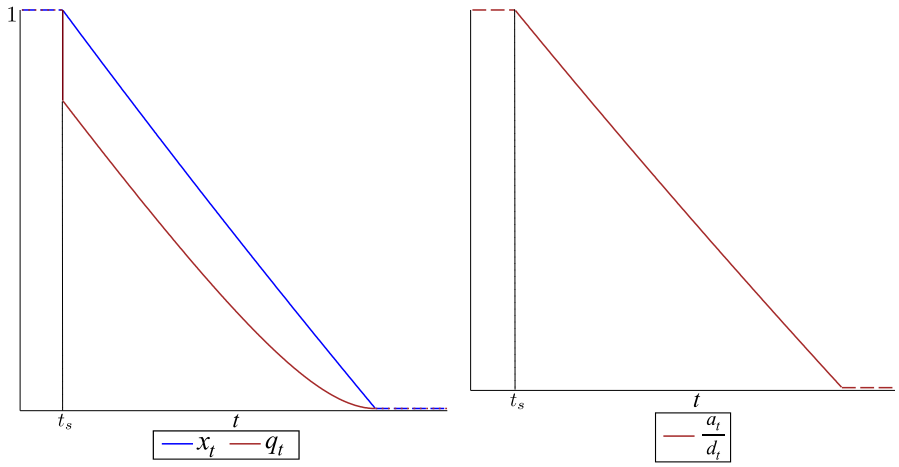
We find that issuers can stabilize the market and avert such adverse dynamics by committing to limit redemptions in times of stress. Though counterintuitive, such limits help avoid a rapid depletion of reserve assets and prevent destabilizing carry-trade dynamics. In this sense, our findings suggest that from a run-prevention perspective regulation should consider permitting redemption barriers for stablecoin issuers under stress, mirroring the flexibility granted to MMFs.

Interest on stablecoins and contagion effects. In our framework, users primarily hold stablecoins as liquidity insurance against idiosyncratic demand shocks—mirroring the role of bank deposits in the classical models of Bryant (1980) and Diamond and Dybvig (1983).[11] Under the allocation that achieves optimal ex-ante risk sharing, stablecoins must be non-interest-bearing. The reason is that interest payments make consumption depend on when an agent is

[10]Such rules can be credibly enforced using smart contracts and blockchain-based mechanisms (Cong, Li and Wang, 2022).

[11]This liquidity-insurance function is arguably central to the current role of stablecoins, given their widespread use for settlement in DeFi protocols and for facilitating trades on crypto-exchanges.

Figure 4: Stablecoin Run Dynamics in van Buggenum *et al.* (2023)



Source: Based on van Buggenum *et al.* (2023).

Note: Left panel plots the stablecoin's peg x_t and secondary-market price q_t following an unexpected drop in the secondary-market price at time t_s. Right panel shows reserve coverage, measured as the ratio of reserve assets a_t to circulating coins d_t.

hit by a liquidity shock: returns accrue over time, so earlier (later) shocks imply less (more) interest earned. This timing dependence undermines liquidity insurance. Efficient competition among issuers therefore does not operate through the interest rate, but through the stablecoin's issue price in the initial coin offering (ICO).

We further show that when different stablecoins compete, interest-bearing stablecoins can introduce destabilizing dynamics into the stablecoin system. Specifically, we find that even a single interest-paying stablecoin can exert "contagion" effects on others: unless competing coins also begin offering interest, they become uncompetitive and face redemption pressures. This dynamic creates coordination problems and multiple, potentially unstable and inefficient, equilibria in which stablecoin yields fluctuate widely.

These findings carry two main policy implications. First, a stablecoin's resilience should not be assessed in isolation. Regulatory monitoring and stress testing should consider the full competitive landscape of stablecoins and their systemic interdependencies. Second, regulatory frameworks that discourage interest-bearing stablecoins can enhance stability. Such policies can shield stablecoins from return-driven contagion and help coordinate the market toward the efficient risk-sharing equilibrium.[12]

[12]More precisely, our model shows that from the perspective of optimal liquidity insurance, the efficient allocation is achieved when stablecoins offer a zero *real* interest rate, that is, when their nominal interest rate matches the prevailing inflation rate.

2.5 Stablecoins' role in the broader financial and monetary system

Stablecoins rose to prominence largely because they serve as the de facto medium of exchange and unit of account in crypto trading, allowing participants to trade in and out of volatile crypto assets without converting back to traditional fiat currencies. In addition, they play an important role in the DeFi ecosystem: smart contracts can use stablecoins as collateral, liquidity, and a settlement medium, automating functions such as lending, trading, and liquidation across protocols. Beyond the crypto sphere, stablecoins' broader appeal stems from the promise of faster and cheaper transactions, especially in cross-border contexts.

On a macroeconomic level, scholars and policymakers are examining how widespread stablecoin adoption could affect the traditional financial system and monetary policy. Some view stablecoins as a complement to traditional bank deposits and central bank money that could foster competition and innovation in payments (following arguments by Hayek on private monies). Others are more skeptical, noting that widespread stablecoin use could lead to disintermediation, weaken monetary policy transmission, threaten the singleness of money, and heighten financial instability.

Disintermediation, systemic risk, and currency substitution. For example, if households and firms begin holding significant funds in stablecoins, banks could lose deposits, shrinking their ability to lend. A sudden and substantial shift from bank deposits into stablecoins could even result in a situation akin to a systemic bank run. The IMF notes that some stablecoins are starting to find acceptance beyond the crypto space, raising the prospect of currency substitution in certain environments (Bains, Ismail, Melo and Sugimoto, 2022). For instance, in economies with unstable local currencies, dollar-pegged stablecoins might be seen as an attractive store of value, potentially undermining local monetary sovereignty and the effectiveness of monetary policy (see also Brunnermeier, James and Landau, 2021; Garita, Bregni and Asturias, 2024). At the same time, this very threat could act as a disciplining force, pressuring policymakers to improve poor monetary policies in order to avoid stablecoins displacing the local currency.

Recent theoretical work further deepens concerns over financial disintermediation and systemic risk. Chen and Phelan (2025) show in a quantitative general equilibrium model with financial frictions that widespread stablecoin issuance can significantly undermine banking-sector stability, despite potentially increasing household welfare. Their model demonstrates that stablecoins depress deposit spreads, making it harder for banks to rebuild capital after losses, particularly during crises. As a result, the probability of systemic banking crises increases, even when stablecoins are fully backed by safe assets.

Stablecoin shocks and spillovers to traditional finance. As of now, the scale of stablecoins

relative to global finance is still small, and usage is mostly confined to the crypto landscape. The aggregate value of stablecoins (on the order of $300 billion as of late 2025, dominated by a few dollar-pegged coins) is tiny compared to broad money in major economies. Recent empirical work by the BIS (Cornelli, Doerr, Frost and Gambacorta, 2023; Aldasoro, Cornelli, Minesso, Gambacorta and Habib, 2024) reinforces this point: using complementary methods, they show that shocks within the crypto ecosystem, such as the collapses of Terra/Luna or FTX, substantially affect stablecoin capitalization but have no discernible impact on traditional financial markets, including MMFs or equity indices. This underlines the still largely self-referential nature of crypto markets and suggests that while stablecoins are increasingly systemically important within the crypto economy, their external spillovers remain limited—for now.

Still, if stablecoins were to gain widespread traction as a medium of exchange for goods and services, they could rapidly achieve systemic scale. Integration into digital platforms and e-commerce networks with billions of users could make stablecoins a de facto means of payment in everyday life, far beyond their current role in DeFi and crypto trading. Financial shocks originating in the crypto ecosystem could then spill over into traditional finance. This is particularly relevant because major stablecoins hold substantial reserves in money market instruments like U.S. Treasury Bills and commercial paper. In the event of a destabilizing redemption wave, the forced liquidation of these reserves could amplify volatility in short-term funding markets, echoing the dynamic observed during runs on MMFs in the Global Financial Crisis.

Stablecoins issued by large digital platforms. Beyond integration into existing crypto and financial markets, a plausible route to systemic relevance lies in stablecoins issued directly by dominant digital platforms. The idea that major online platforms might issue their own stablecoins gained prominence with Facebook's 2019 Libra project, a consortium-based digital currency initially backed by a basket of fiat assets. Libra (later rebranded as Diem) triggered an intense global regulatory backlash, ultimately leading to its abandonment. This reaction reflected deep public-sector concerns that large technology firms could roll out quasi-sovereign currencies beyond the reach of monetary authorities, potentially undermining monetary sovereignty, financial stability, and consumer protection.

A growing academic literature analyzes the broader implications of platform-issued money. Brunnermeier *et al.* (2021) highlight the risk of monetary fragmentation in a digital environment where platforms can internalize transactions and limit interoperability with national-currency systems. Rogoff and You (2023) examine redeemable platform currencies, showing that firms have incentives to issue private money-like instruments that are accepted for goods and services on their platforms but may be only partially interoperable with the wider monetary sys-

tem. Guennewig (2024) models competition between a platform currency and sovereign money, emphasizing how a large online retailer may design a monetary ecosystem that reinforces customer lock-in and generates network effects, while simultaneously leveraging transaction data for strategic advantage. Complementing these, Cong *et al.* (2022) formalize token-based platform finance; Abadi and Brunnermeier (2024) show how token issuance reshapes platform governance and rent-sharing; Goldstein, Gupta and Sverchkov (2024) show that utility tokens can commit a platform to more competitive pricing by limiting its ability to extract market-power rents; Ozdenoren, Tian and Yuan (2025) show how platforms that issue their own money extract seigniorage and distort market structure; and Frost, Rochet, Shin and Verdier (2025) model competition between bank deposits, platform tokens, and central bank digital currency (CBDC), highlighting why interoperability matters.

Taken together, this literature underscores that platform-issued stablecoins, while potentially efficient within closed networks, pose new challenges for competition, interoperability, data control, and the overall governance of monetary systems.

3 A policy agenda for stablecoin regulation

The rise of stablecoins poses a complex mix of opportunities and risks for regulators and policymakers. On the one hand, stablecoins promise more efficient payments (24/7 instant transfers, including cross-border), financial inclusion (for those without easy access to bank accounts), programmable payment functionality, and enhanced competition in payments.[13] On the other hand, they present significant challenges: if not properly regulated, they can be subject to runs that echo classic bank runs, they may transmit shocks between crypto and traditional finance, and in extreme cases, widespread use of private stablecoins could lead to disintermediation and undermine monetary sovereignty.

Building on the insights from the previous section, and on current policy debates, we outline a set of forward-looking implications for regulatory and policy design. Many of the risks associated with stablecoins are already being addressed, at least in part, by recent regulatory frameworks. The EU's MiCA and the U.S. GENIUS Act both establish minimum standards for redemption rights, reserve quality and composition, liquidity management, and disclosure obligations for fiat-backed stablecoins. In Appendix A, we provide an in-depth analysis and comparison of MiCA and the GENIUS Act, alongside a broader overview of the regulatory

[13] A further (often implicit) policy-relevant channel for the U.S. is that major dollar stablecoin issuers invest heavily in short-term U.S. Treasury bills, which can lower short-term government funding costs. Using daily data for 2021–2025, Ahmed and Aldasoro (2025) estimate that a 2-standard-deviation inflow into dollar stablecoins (about USD 3.5bn over five days) lowers the 3-month Treasury yield by roughly 2–2.5 bps within 10 days; outflows raise yields by more during stress. They also document the growing scale of stablecoins' Treasury-bill footprint, including sizeable purchases in 2024.

landscape in Switzerland and other jurisdictions.

Ultimately, the effectiveness of these frameworks, and the extent to which they close critical gaps, will become clear only over time. As implementation proceeds and the stablecoin ecosystem evolves, continued regulatory attention will be needed not only to advance the following core policy objectives, but also to resolve several open design and implementation questions:

P.1 Establish legal clarity and enforceability of redemption rights

While many issuers advertise 1:1 convertibility into fiat currency, coinholders often lack a clear contractual claim to redemption or to the underlying reserves (Bains *et al.*, 2022; Bruce, Odinet and Tosato, 2022). A core pillar of stablecoin regulation is making coinholders' redemption rights legally enforceable—not just in principle, but in practice. This is particularly challenging in cross-border contexts, where tokens circulate across divergent legal regimes and jurisdictional boundaries. Opaque and/or offshore structures may leave coinholders with limited practical recourse in cases of redemption delays or outright failures. Even when formal rights exist de jure, enforcing them can be difficult, especially during stress events, insolvencies, or cross-border disputes. As a result, many redemption promises still rely heavily on issuer reputation. Echoing these concerns, the BIS (2025) notes that even fully backed stablecoins are only as stable as their issuers' legal structures.

To make current operational redemption frictions transparent, Table 1 summarizes key issuer-published terms for direct convertibility into fiat for USDT and USDC. These terms matter even when tokenholders have a legal redemption right, because exercising that right through the issuer's primary channel typically requires account opening, KYC/AML onboarding, and other operational safeguards. As of late 2025, Tether limits direct redemption to verified customers and imposes a high minimum redemption amount (USD 100,000), alongside fees (including a redemption fee of 0.1% subject to a USD 1,000 minimum). Tether's issuer group has historically been organized through offshore entities, including in the British Virgin Islands, and has more recently redomiciled to El Salvador, underscoring the cross-jurisdictional nature of its legal setup. USDC, in turn, is issued by the U.S.-based firm Circle and is designed around an institutional "primary" redemption channel: 1:1 redemption with the issuer is accessed mainly through Circle Mint, which is generally available only to institutional customers (with MiCA-specific exceptions discussed below).[14] Consequently, most retail on-chain holders typically rely on exchanges or other intermediaries for cash-out.

Importantly, Tether's offshore incorporation does not imply domestic regulatory irrelevance.

[14]Conceptually, this primary/secondary structure resembles exchange-traded funds (ETFs): ETF shares trade in a secondary market, while creation and redemption in the primary market are typically limited to authorized participants, whose arbitrage helps keep market prices close to net asset value (e.g., Graichen, 2025).

Table 1: Issuer-published redemption terms: USDT vs. USDC (as of late 2025)

	USDT (Tether)	**USDC (Circle)**
Who can redeem directly with issuer?	Verified Tether.to customers.	Circle Mint account holders.
KYC / AML	Required to become a verified customer and redeem.	Required to open Circle Mint account and redeem.
Minimum redemption size	USD 100,000 equivalent.	No standardized public minimum.
Issuer fees (redemption)	Greater of USD 1,000 or 0.1%.	Basic redemption (initiated within 2 business days): no fee. Standard redemption (initiated nearly instantly): tiered fees by size (e.g., 0.03% for $2–5m).
Typical settlement rail / time	Fiat bank transfer (wire/transfer fees may apply); timing depends on banking rails and compliance review.	Fiat settlement via Circle Mint (wire/transfer fees may apply); timing varies by redemption option and settlement facility.
Can redemptions be delayed / suspended?	Issuer reserves the right to delay redemption/withdrawal under specified circumstances.	Issuer reserves the right to change/suspend services and may delay or refuse redemption.

Source: Tether (redemption guide, fee schedule, and legal terms); Circle (USDC Terms and Circle Mint terms/fee disclosures).

Note: For USDC, Circle's MiCA redemption policy provides a par-redemption route for all holders in the EEA, separate from the Circle Mint channel, via a dedicated request process (subject to KYC/AML checks) with fiat payout to a bank account in the EEA.

Abbreviations: AML = Anti Money Laundering; EEA = European Economic Area; KYC = Know Your Customer.

First, offshore stablecoins often remain deeply embedded in U.S.-linked market infrastructure—through custodians, primary dealers, banks, and platforms that intermediate reserve management and redemptions—creating potential points of indirect regulatory leverage even when the issuer itself sits outside the licensing perimeter (e.g., the reported role of Cantor Fitzgerald in Tether's reserve setup; see Andolfatto, 2025). Second, both the EU's MiCA regulation and the U.S. GENIUS Act gate domestic market access by restricting issuance and distribution to compliant stablecoins. In particular, the GENIUS Act allows foreign stablecoins to be offered to U.S. users only if the issuer is based in a jurisdiction designated as having a "comparable regime". Under MiCA, only EU-authorized issuers may offer stablecoins to the public, and the distribution of non-compliant foreign coins will be increasingly restricted.

Beyond these perimeter defenses against foreign and potentially weakly supervised stablecoins, recent regulatory efforts, including MiCA and the GENIUS Act, also harden the core promise of par redemption for approved coins by formalizing timely redemption obligations, reserve/custody safeguards, disclosure requirements, and issuer-insolvency proceedings (see also Appendix A). While Tether has, at least so far, not sought authorization for USDT under MiCA

or as a U.S. permitted stablecoin, Circle has positioned USDC for MiCA compliance through its French entity ("Circle France"), which is licensed as an electronic money institution and publishes MiCA-linked disclosures and policies. Reflecting MiCA's obligations, Circle's MiCA redemption policy for USDC states that direct, fee-free redemption at par is available to all holders in the European Economic Area (EEA), including retail holders who do not have a Circle Mint account. Redemption requests can be initiated via a dedicated request form, followed by KYC/AML onboarding, with fiat payout to a bank account in the EEA (Circle, 2024).

Although some of the most consequential restrictions will phase in only gradually (e.g., U.S. platform limits on unauthorized foreign stablecoins not taking full effect until mid-2028), the direction of travel in recent regulation is nonetheless clear—and, in our view, correct. Conditioning market access on enforceable redemption rights and robust legal structures is a key building block for credibly establishing stablecoin par convertibility.

P.2 Ensure robust reserve safeguards and transparent reserve disclosures

A foundational requirement for fiat-backed stablecoins to be truly stable is that they are fully and credibly backed by high-quality, sufficiently liquid assets. In addition, issuers must provide frequent, audited disclosures of reserves. Lack of transparency is a key concern that makes it difficult to assess the risk profile of a stablecoin. Tether, for instance, faced regulatory scrutiny and public criticism for years due to opaque and unaudited reserve disclosures. Regulators should mandate regular reserve audits, clear segregation of reserves, and transparent custodial arrangements that protect reserve assets in the event of issuer insolvency. Reserves should also be held with reputable and supervised institutions to ensure accessibility and trust.[15]

Both the U.S. GENIUS Act and the EU's MiCA regulation represent substantial progress on these fronts by tightening reserve governance and, in different ways, constraining what can count as eligible backing assets (Table 2; see also Appendix A). However, several design choices remain controversial. MiCA's mandate that a significant share of the issuer's reserve assets must be held as bank deposits (30% for regular issuers and 60% for systemic ones) has been criticized as overly rigid and potentially distortive. Vítor Constâncio (former Vice President of the ECB), among others, has argued that such deposit floors constrain portfolio flexibility and may inadvertently increase risk by exposing issuers to the banking sector's fragilities (Constâncio, 2025; see also Hansen and Bauer, 2024). Similarly, Bofinger (2025) has sharply criticized the 60% requirement, calling it "a recipe for disaster" that could amplify financial instability through feedback loops between bank runs and stablecoin runs. Uhlig (2025) emphasizes that such warnings should

[15]Preliminary work of ours (Gersbach and Zelzner, 2025) investigates how asset diversion by malicious stablecoin issuers can undermine trust in the broader market and trigger contagion, harming even sound competitors. In extreme cases, where issuers abscond with all investor funds, this constitutes a so-called "rug pull". High-profile examples include AnubisDAO and StableMagnet in 2021.

be taken seriously: the 2023 failure of SVB, for instance, led to a serious depegging event for Circle's USDC, which had held large amounts of its reserves as uninsured deposits at SVB.

Table 2: Eligible reserve assets: MiCA EMTs vs. GENIUS Act payment stablecoins

MiCA (EU): EMT backing rules + EBA draft RTS clarifications	**GENIUS Act (U.S.): permitted reserves**
Bank deposits are mandatory: at least 30% of reserves must be held as deposits at credit institutions (in separate accounts); 60% for significant tokens (EBA draft RTS). **Remainder must be HLFI:** MiCA requires "highly liquid financial instruments" with minimal risk and the same currency as the EMT. ↪ EBA's draft RTS map HLFI to the top tier of liquid assets in the EU LCR framework (roughly Level 1, 0% haircut assets). ↪ HLFI therefore in particular includes cash, top-tier public-sector liquid assets (notably qualifying sovereign bonds), and central-bank reserves (where eligible). **Covered bonds:** certain extremely high-quality covered bonds may count as HLFI, but EBA caps them at 35% of the reserve. **Fund wrappers:** units in EU-regulated funds (UCITS, e.g. mutual funds/ETFs) can qualify if the fund invests only in eligible safe/liquid assets.	**Cash / central-bank money:** currency and (where eligible) central bank balances. **Bank deposits:** demand (or otherwise immediately withdrawable) deposits at banks. **Short-maturity U.S. Treasuries:** bills/notes/bonds with remaining maturity up to 93 days. **Overnight Treasury repo:** overnight repos/reverse repos backed by Treasuries. **Government MMFs:** only if invested solely in the permitted cash/Treasury/repo instruments. **Plus:** regulators may approve other similarly liquid U.S. government-issued instruments; and certain permitted reserves may be held in tokenized form.

Source: MiCA (EU, 2023), Arts. 54, 38, 45(7)(b), and 58. EBA final draft RTS on liquidity requirements and HLFI (EBA, 2024a; EBA, 2024b). GENIUS Act (U.S. Congress, 2025), Sec. 4(a)(1)(A).

Abbreviations: EBA = European Banking Authority; EMT = E-Money Token; HLFI = Highly Liquid Financial Instruments; LCR = Liquidity Coverage Ratio; MMF= Money Market Fund; RTS = Regulatory Technical Standards; UCITS = Undertakings for Collective Investment in Transferable Securities.

Concerns have also been raised about allowing stablecoin issuers to hold other eligible reserve instruments, such as MMFs and Treasury repos (e.g., Uhlig, 2025; Liang, 2025). MMFs, even when invested in short-term public debt, have a well-documented history of fragility under stress, reflecting liquidity mismatches and first-mover incentives that can trigger rapid fund outflows. Repos, in turn, can give issuers a way to raise short-term liquidity against Treasury collateral without outright selling their holdings, but they may introduce legal and operational vulnerabilities in an issuer failure, especially if they create hidden encumbrances on the backing pool or complicate the mechanics of timely redemptions.[16] These concerns have led some

[16] A key concern is that repo transactions typically benefit from "safe harbor" treatment in insolvency, meaning they are exempt from the automatic stay: repo counterparties may be able to seize and liquidate collateral immediately upon default. If repo positions are not tightly constrained and transparently reported, reserves

observers to argue for granting, or even requiring, stablecoin issuers to hold part of their backing portfolio as deposits at the central bank, an option we discuss next in P.3.

Overall, while recent regulatory initiatives represent major steps forward in formalizing reserve asset frameworks for fiat-backed stablecoins, further refinements may be required to avoid unintended risks, close residual loopholes, and safeguard redemption rights under stress.

Crypto-backed stablecoins like DAI are treated distinctly from fiat-backed stablecoins under emerging regulatory frameworks. The U.S. GENIUS Act explicitly excludes them from its scope, and the EU's MiCA regulation classifies them separately as asset-referenced tokens (ARTs), subject to different requirements. While such stablecoins may continue to serve specialized roles within DeFi ecosystems, their design makes them inherently ill-suited to scale as mainstream payment instruments.

Algorithmic stablecoins, which lack external collateral backing altogether, are even more fragile than crypto-backed stablecoins. Given their history of instability, regulators have moved to exclude algorithmic stablecoins from the categories reserved for trusted, payment-oriented instruments. Both MiCA and the GENIUS Act exclude algorithmic designs from their core stablecoin frameworks. Policymakers may consider going further, for example by restricting the use of the "stablecoin" label for algorithmic designs and subjecting them to heightened scrutiny; in extreme cases, certain designs could even be prohibited outright.

P.3 Examine the case for central-bank reserve access for regulated issuers

While current regulatory frameworks mandate that stablecoins be fully backed by high-quality, liquid assets, such backing is rarely risk-free in practice. Under stress, feedback loops can arise between redemption pressures and strains in short-term funding markets or the banking sector (as mentioned in P.2). A natural way to eliminate much of this residual backing risk would be to allow, or even require, stablecoin issuers to hold (part of) their reserve assets in central bank reserves, which are by definition perfectly safe and liquid.

In the EU, MiCA-related implementation standards and ECB guidelines effectively preclude non-bank stablecoin issuers from accessing such reserves. The U.S. GENIUS Act formally recognizes central bank reserves as eligible backing assets, but does not grant new entitlements to Federal Reserve master accounts, rendering this option largely inaccessible in practice for most issuers. The Bank of England (BoE) plans to take a different approach: under its emerging stablecoin regime, systemic stablecoins must be backed by at least 40% in central bank deposits.

can become encumbered or effectively "double counted", undermining the premise that the backing pool is unencumbered and operationally available to meet redemptions at par under stress. As Liang (2025) emphasizes, absent strict safeguards of this kind, repo-related claims could leave the segregated reserve pool insufficient to satisfy redemption demands in a failure scenario.

The ECB justifies its restrictive stance by warning that reserve-backed stablecoins could adversely affect the intermediation role of banks and blur the line between private money and central bank money (ECB, 2024). In contrast, the BoE emphasizes the prudential benefits of reserve holdings, noting that such a requirement ensures systemic stablecoin issuers "have enough liquid assets to meet unanticipated and rapid redemption requests" (BoE, 2025a). In the U.S., Fed Governor Christopher Waller proposed in October 2025 a limited-access "payment account" model that could grant certain institutions, including stablecoin issuers, access to the Fed's payment rails. On December 19, 2025, the Fed officially opened a public consultation on this idea (Fed, 2025). These accounts, however, would not confer the full privileges of a master account: they would be non-interest bearing, subject to balance caps, and ineligible for Fed credit. While useful for clearing and settlement, they would therefore not provide a viable mechanism for stablecoin issuers to hold a significant share of their reserve assets.

Critics of reserve backing generally echo the ECB's disintermediation concerns. For instance, Wang (2025) argues that granting stablecoin issuers access to remunerated master accounts at the Federal Reserve would result in the "highest aggregate deposit loss at commercial banks" and the "maximum degree of bank disintermediation" among the policy options considered. Others consider these concerns to be outweighed by the potential stability gains. Uhlig (2025) describes reserve backing as the "most stable arrangement" and calls the reluctance to allow stablecoin issuers access to central bank reserves "genuinely paradoxical". Similarly, Bindseil (2025) explores a range of designs, including partial and full reserve backing. Stablecoins backed entirely by central bank reserves are often referred to as *synthetic CBDCs*, since they functionally replicate many features of a retail CBDC while remaining privately issued.

If stablecoin issuers were granted (or mandated) access to central bank reserves, the question arises whether these reserves should pay interest or not. The BoE has made clear that it will not remunerate these reserves, arguing that systemic stablecoins are intended for payment purposes only, and that issuers are not expected to play a material role in the transmission of monetary policy, a key justification for paying interest on reserves held by banks (BoE, 2025a). The Fed's proposed payment accounts for stablecoin issuers would likewise not pay interest. By contrast, McLellan and Bindseil (2025) argue that remuneration could serve as a policy lever to influence the attractiveness of stablecoins relative to bank deposits. They propose that remuneration rates for stablecoin issuers should remain below those paid to banks, reflecting potential negative externalities such as disintermediation risks or use in illicit payments. Bindseil (2025) further discusses tiered remuneration schemes for stablecoin issuers, under which interest paid on reserves could decline with the size of holdings.

P.4 Examine the case for a public liquidity backstop for systemic issuers

Even with strict backing by high-quality liquid assets (and even with partial backing in central bank reserves), a systemic stablecoin could face extreme, sudden redemption waves in which private market liquidity evaporates and issuers are forced to monetize reserve assets at unfavorable prices, risking delayed redemptions, temporary secondary-market discounts, and spillovers into short-term funding markets. History provides a clear precedent: during the 2008 financial crisis, runs on U.S. prime money market funds after the Reserve Primary Fund "broke the buck" prompted extraordinary public interventions, including a temporary Treasury guarantee and Federal Reserve liquidity facilities to stabilize redemptions and short-term funding markets.

One response in the stablecoin context is to complement ex-ante reserve requirements with a narrowly tailored public liquidity backstop: a central bank facility that provides temporary liquidity against high-quality collateral to an eligible, solvent, and viable issuer in exceptional circumstances, consistent with the classic lender-of-last-resort principles articulated by Bagehot. The Bank of England has moved furthest in this direction, explicitly considering "central bank liquidity arrangements" and a backstop lending facility for systemic stablecoin issuers to help them meet rapid redemptions when private markets are impaired (BoE, 2025a).

By contrast, neither MiCA nor the U.S. GENIUS Act establishes a public liquidity backstop for stablecoin issuers, and both frameworks explicitly underscore that stablecoin holdings are not covered by deposit-insurance-style guarantees. In the Euro Area, the ECB has stressed that access to Eurosystem monetary operations or emergency liquidity assistance (ELA) is tied to the banking perimeter, implying that comparable public backstop arrangements are not currently envisaged for non-bank stablecoin issuers. In the United States, the current framework likewise provides no comparable public liquidity backstop, and the Fed's proposed limited "payment accounts" are explicitly non-credit arrangements (no Fed credit, no overdrafts), reinforcing a model in which stablecoins must self-insure liquidity through reserve composition rather than rely on emergency public funding.[17]

A key trade-off is that any public backstop may strengthen confidence and reduce fire-sale externalities, but it also risks importing bank-like moral hazard and accelerating disintermediation. For that reason, proponents typically argue such facilities should be tightly constrained, for example through fully collateralized lending, conservative haircuts, penalty pricing, strict caps, and robust supervision and resolvability requirements commensurate with access to public support (e.g., IMF, 2025). At first glance, the familiar banking logic suggests that a solvent

[17]Following Ahmed, Clouse, Natalucci, Rebucci and Sun (2025b), the Fed could, in principle, grant non-bank stablecoin issuers access to overnight repo operations, so they could obtain short-term liquidity against eligible collateral. In more severe stress episodes, the Fed also retains emergency lending authority for non-bank financial institutions under Section 13(3) of the Federal Reserve Act, which it used to support MMF functioning during the 2020 pandemic.

issuer facing a temporary liquidity shortfall should be able to borrow against high-quality collateral, thereby avoiding fire sales that erode capital and trigger self-reinforcing redemption dynamics.

Yet this lender-of-last-resort intuition does not transfer cleanly to stablecoin issuers. As emphasized by Bidder (2025), stablecoins are often global instruments, with backing assets held and intermediated across multiple jurisdictions, and with coinholders dispersed internationally. This fragmentation complicates the operational and legal foundations of emergency liquidity support. In particular, no single central bank has a clear mandate to provide liquidity to support redemptions for a globally circulating private token, especially when a large share of holders may be abroad. Nor is there an established mechanism for multiple central banks to coordinate rapidly on a collective backstop for a private issuer. Beyond these cross-border frictions, central banks may also be reluctant to extend public liquidity to nonbank issuers because of reputational and compliance concerns, for example if emergency support indirectly facilitates redemptions linked to sanctioned entities or illicit-finance risks. Taken together, these considerations make it likely that many central banks will remain reluctant to broaden access to such facilities beyond the banking perimeter.

That said, the absence of an ex-ante commitment does not eliminate the risk of ex-post intervention once adoption is large enough. If a systemic stablecoin were to destabilize short-term funding markets or impose losses on a large number of retail users, a de facto too-big-to-fail logic could emerge, with governments facing strong pressure to arrange compensation or extraordinary support even after having ruled out guarantees in principle. Nobel laureate Jean Tirole has warned explicitly about this political-economy channel, cautioning in a 2025 Financial Times interview that stablecoins perceived as "safe" could ultimately trigger taxpayer-funded bailouts once confidence breaks (Storbeck, 2025).

P.5 Mitigate platform market power and promote interoperability

Stablecoins can exhibit strong network effects, especially when they are embedded in large digital platforms with captive user bases, integrated wallets, and proprietary payment infrastructure. In such settings, a Big Tech issuer could use a branded stablecoin to reinforce "walled-garden" ecosystems, steer users and merchants toward affiliated services, and monetize payment data in ways that entrench market power and raise broader monetary and financial-sovereignty concerns.

The GENIUS Act addresses this risk most directly by constraining issuance by large non-financial firms. In particular, it generally bars any public company that is not predominantly engaged in financial activities, as well as its majority-owned subsidiaries and affiliates, from issuing a payment stablecoin unless it obtains a unanimous approval from the Stablecoin Cer-

tification Review Committee (SCRC), including findings that issuance would not pose material risks to the U.S. banking system and financial stability, and that the issuer will comply with strict data-use limitations. In addition, the Act prohibits tying and coercive conditioning, preventing a stablecoin issuer from making access, pricing, or benefits contingent on the purchase of other paid products or on exclusivity commitments. This rules out reward schemes of the form "Prime discounts only if you use AmazonCoin", and aims to reduce the scope for leveraging stablecoin issuance into platform dominance through bundling, steering, and data-driven cross-subsidization.

MiCA does not impose a categorical Big Tech ban on stablecoin issuance. Instead, it addresses platform and sovereignty risks more indirectly. First, MiCA's "significance" framework can pull large platform-linked tokens into a tighter supervisory perimeter, including through criteria that capture platform scale and reach. Second, for stablecoins denominated in a non-EU currency, MiCA introduces a quantitative "widely used means of exchange" brake: if usage within a single currency area exceeds a quarterly average of 1 million transactions per day and €200 million in value per day, the issuer must halt further issuance and submit a remediation plan to reduce usage below those thresholds. Third, competent authorities may restrict issuance where the ECB or a relevant national central bank concludes that a token poses material risks to monetary sovereignty, monetary policy transmission, or payment system integrity. Taken together, these tools do not target market power as directly as the GENIUS Act, but they can constrain the scaling of foreign platform currencies and provide an additional safeguard where payment adoption intersects with monetary sovereignty. In addition, many of the platform-power and data-combination concerns that MiCA does not target directly are addressed through horizontal EU competition and platform regulation, most notably the Digital Markets Act for designated gatekeepers, which restricts self-preferencing and limits the combining or cross-use of personal data across services absent valid user consent.

Interoperability requirements can further limit market power by lowering switching costs and making it harder for dominant issuers to lock users into proprietary wallets, custody arrangements, or technical stacks. At the same time, interoperability reduces fragmentation and operational frictions, improving user experience by making acceptance, transfers, and cash-out more seamless across wallets, platforms, and jurisdictions. MiCA takes a targeted "portability" approach for significant tokens: issuers must ensure that such tokens can be held in custody by different authorized crypto-asset service providers (CASPs), including CASPs outside the issuer's corporate group (its parent and subsidiaries under common control), on fair, reasonable, and non-discriminatory terms. The GENIUS Act, by contrast, includes a more explicit but standards-based interoperability mandate: regulators, in consultation with the National

Institute of Standards and Technology (NIST) and other bodies, must assess and, if necessary, may prescribe standards to promote "compatibility and interoperability" with other permitted issuers and with the broader digital finance ecosystem, explicitly referencing communications protocols and blockchains.

Stablecoin interoperability also hinges on market structure. A useful analogy is check clearing (Garratt, 2025). Just as one issuing bank is not typically privileged over another in the acceptance of checks, stablecoins could achieve greater uniformity if they were cleared and ultimately settled through a common arrangement. In such a system, a user who receives a stablecoin would be able to "deposit" it with any participating intermediary and receive full value, regardless of the original issuer, with net positions then cleared and settled across issuers. While bilateral redemption agreements could in principle replicate this outcome, a patchwork of pairwise links is inefficient and tends to favor closed, walled-garden networks. Clearing systems solve this many-to-many problem by standardizing acceptance and settlement, thereby reducing fragmentation and promoting contestability.

A natural implication is that competition policy for stablecoins is likely to hinge on the interaction of (i) limits on platform-based issuance and tying, (ii) data-use and data-sharing constraints that prevent payment data from becoming an exclusionary advantage, and (iii) credible interoperability and portability obligations that keep wallets, custody, and settlement access contestable even when one issuer reaches scale. In principle, both the EU and U.S. frameworks provide regulators with tools that can be deployed toward these goals, either directly through stablecoin-specific restrictions or indirectly through broader competition and platform regulation. The challenge will be implementation. Authorities will need to set clear standards, build consistent supervisory and enforcement precedents, and anticipate predictable circumvention strategies, including affiliate-based workarounds, de facto exclusivity through incentives and default settings, and interoperability rules that exist on paper but are undermined by fees, technical frictions, or discriminatory access. Getting this right will require closing loopholes early and updating guidance as market structure and technology evolve.

P.6 Protect monetary sovereignty and limit currency substitution

Monetary sovereignty—the ability to issue and govern the domestic currency and maintain effective control over it—matters for several reasons. Among other things, it preserves a jurisdiction's ability to conduct monetary policy, safeguard the integrity and resilience of its payment system, and act decisively in crises. It also limits strategic dependency on foreign-controlled monetary or financial infrastructure that could be weaponized or withdrawn in geopolitical conflict (e.g., Bindseil and Cipollone, 2025).

Stablecoins raise a currency-substitution concern because they can make holding and transacting in a foreign unit of account far easier than traditional channels. In emerging and developing economies, where inflation, weak policy credibility, or capital controls already create incentives to dollarize, dollar-denominated stablecoins can function as "easy-access digital dollars", lowering barriers relative to opening foreign bank accounts (see, e.g., the Argentina case discussion in Garita *et al.*, 2024). In line with this mechanism, Reuter (2025) documents that net stablecoin flows from North America to other regions tend to increase when the dollar strengthens against other currencies, suggesting that stablecoins help satisfy global dollar demand and may reinforce substitution pressures when domestic currencies weaken.

In the best case, this competitive pressure disciplines policymakers and strengthens incentives to restore credibility. In the worst case, it accelerates de facto dollarization, weakens monetary policy transmission, amplifies capital-flight dynamics, and shifts payment activity outside the domestic regulatory perimeter. Importantly, substitution can occur in stages: stablecoins may first gain traction as a means of payment and store of value, and only later begin to influence pricing and contracting, at which point the loss of monetary sovereignty becomes harder to reverse. This can turn currency substitution into a financial-stability concern in addition to a monetary-policy concern.

In advanced economies outside the United States, the concern is less about policy credibility and more about preserving the domestic monetary and payments architecture against the scaling of foreign-denominated platform currencies. Even if domestic inflation remains low, widespread use of foreign stablecoins for everyday payments can shift liquidity, data, and customer relationships toward foreign ecosystems, with implications for competition, supervision, and monetary sovereignty. Recent regulatory frameworks take this seriously. In the EU, MiCA equips authorities with tools that can constrain the payment use of foreign-currency stablecoins, including the "widely used means of exchange" brake once usage exceeds specified thresholds, and additional powers to intervene where a token threatens monetary sovereignty. These tools can also indirectly limit the dominance of large-platforms, as discussed in P.5 above. In the United Kingdom, the Bank of England has proposed transitional limits on individual and business holdings for systemic sterling stablecoins as a safeguard while the regime and supporting infrastructure mature, which also helps contain rapid shifts into new forms of digital money, most of which are currently dollar-denominated.

Looking ahead, protecting monetary sovereignty is likely to require a balanced mix of restrictions and alternatives. On the restriction side, jurisdictions can reinforce the role of the domestic currency by imposing targeted limits or other hurdles on the use of foreign-denominated stablecoins for retail payments when substitution risks become acute. In more fragile settings,

authorities may also resort to blunt measures, including outright prohibitions, implemented primarily through regulation and enforcement at chokepoints such as on- and off-ramps, regulated exchanges, payment platforms, banks, and large merchants. Such approaches can curb mainstream adoption but are difficult to enforce fully against self-custodied, peer-to-peer transfers, and may therefore shift activity toward less transparent channels.

On the alternative side, the most durable response is to keep domestic-currency payments competitive through cheap and instant payment rails, credible regulated domestic stablecoin or tokenized-deposit options, and, where appropriate, public digital money solutions. We discuss these options towards the end of this section in P.13.

P.7 Preserve the singleness of money

If stablecoins scale beyond the crypto ecosystem into everyday payments, a core objective is to preserve the singleness of money: within a currency area, different forms of money used for payments should be exchangeable at par and should not trade against each other at fluctuating exchange rates. Singleness underpins trust in the unit of account and reduces frictions in exchange. In today's monetary system, singleness is not a coincidence; it is institutionally engineered through the combination of supervised intermediaries, clearing and settlement in central bank money, and public-sector backstops that ensure that solvent institutions can complete payments even under liquidity stress.

Stablecoins pose a direct challenge to singleness because most prominent designs circulate as digital bearer instruments: transferable issuer liabilities that can change hands without any corresponding balance-sheet adjustment at the issuer and that therefore acquire a market price (which is exactly what we model in our research paper). As Garratt and Shin (2023) emphasize, once an instrument is traded, it is natural for it to exhibit deviations from par, even if the issuer offers par redemption in principle; in practice, frictions, delays, segmentation in redemption access, and shifts in confidence can generate discounts that may be small in normal times but can widen sharply in stress—a lesson we also learn from the free-banking era.

A nuanced view is warranted: small, high-frequency deviations around the peg may be of limited economic relevance for many users and may be largely buffered for retail users through wallet design, payment intermediaries, or contractual pricing conventions. Over time, these deviations may also shrink as market infrastructure matures (Bidder, 2025). More generally, programmability can itself create a tension with strict singleness, because differently programmed claims can have different effective liquidity and therefore rationally trade at different values.[18]

[18]Chiu and Monnet (2025) argue that programmability can be privately valuable (for example, by relaxing commitment frictions) but may also generate social costs under information frictions, implying that enforcing strict singleness is not necessarily welfare-maximizing. In their framework, whether restricting programmability is desirable depends on the relative severity of commitment versus information frictions.

However, large and sudden depegs, the very events that constrain systemic adoption, remain difficult to rule out at scale unless the institutional perimeter is designed to hardwire par settlement and credible convertibility.

From a policy perspective, making stablecoins consistent with singleness requires more than reserve rules and disclosure. It calls for measures that (i) reduce the likelihood that stablecoins trade away from par in secondary markets, and (ii) ensure that end users and merchants can treat regulated stablecoins as "no-questions-asked" payment instruments. Several complementary approaches are available.

First, regulators can promote institutional arrangements that mimic the par mechanics of bank money, rather than relying on arbitrage alone. One promising direction is to require interoperability and clearing arrangements (see also P.5) that allow regulated stablecoins to be deposited into bank or Fintech accounts at face value, with standardized rules for eligibility, settlement timing, fees, and dispute resolution. Conceptually, this extends to stablecoins the institutional features that keep commercial bank monies at par. In the same spirit, Garratt (2025) argues that broad adoption, especially by banks and regulated payment providers, will likely depend on a stablecoin clearing system that restores fungibility across issuers and eliminates "which issuer is this?" concerns at the point of payment.

Second, policymakers can strengthen par convertibility as a legally and operationally credible promise. This is an area where the leading regulatory frameworks already move in the right direction: both the EU's MiCA and the U.S. GENIUS Act include a clear, enforceable redemption right at par in the domestic unit of account; set robust requirements on redemption governance (including transparent policies on fees, timing, and eligibility); and establish supervisory expectations that redemption processes remain functional under operational stress. We note that while the design of redemption frictions involves trade-offs (including the interaction with run dynamics, see P.9), the singleness perspective underscores that if stablecoins are to function as "money" for a broad user base, redemption arrangements must be predictable and widely accessible, otherwise stablecoins will remain segmented instruments whose "moneyness" depends on platform-specific liquidity.

Third, and closely related to the previous point, tail-risk liquidity support is ultimately about preserving par in stress. Here, current regimes are more incomplete: even if they mandate par redemption in law, they do not establish an institutional mechanism that can reliably supply liquidity at scale when private market liquidity evaporates. Partially backing stablecoins with central bank reserves could help (see also P.3), but as long as a substantial share of backing assets remains outside central bank money, liquidity can still prove insufficient under severe stress when mass redemptions trigger fire sales, producing temporary discounts, impairing convertibility, and

creating spillovers. Bidder (2025) highlights that the traditional system preserves singleness in part because solvent issuers can access liquidity against good collateral, and argues that a serious debate is needed about whether, and under what conditions, analogous liquidity facilities should be extended to stablecoin issuers to keep them "vanishingly close to par" even in stress episodes (see also P.4).

Fourth, authorities could narrow the design space by encouraging structures that avoid transferable private liabilities across institutions. The BIS (2025) contrasts the bearer-instrument model with a "non-bearer" model akin to tokenized deposits, where retail users hold claims within regulated intermediaries and cross-institution payments are executed by burning or issuing private tokens with the wholesale leg settling in central bank money (see also P.13). The key advantage is that settlement in central bank money is what hardwires par across institutions and therefore preserves singleness. This logic is compatible with stablecoins continuing to play an important role, but it suggests that, at scale, bearer-style stablecoins align best with singleness when they are complemented by a credible inter-institution clearing arrangement anchored in central bank money.

Overall, the singleness-of-money lens points to a practical policy roadmap. Reserve and disclosure rules are necessary foundations, but they are not sufficient for systemic payment use. To make stablecoins behave like money, rather than near-money claims traded in secondary markets, authorities should complement prudential requirements with (i) interoperability and clearing obligations that support par acceptance across issuers, and (ii) a credible framework for par convertibility, including well-specified redemption governance and, where justified, access to central bank reserves or other safeguards that keep coins at par under stress. In tail events, this may still require a tightly circumscribed liquidity facility for solvent issuers to avert fire-sale dynamics.

P.8 Regulate interest payments on stablecoins

A key concern is that stablecoins could draw funds away from the traditional banking system, potentially disrupting monetary policy transmission, financial stability, and credit creation. Restricting interest payments on stablecoins can mitigate these risks by reducing competitive pressure on the traditional financial system and allowing time for adjustment.[19]

While regulatory frameworks such as MiCA and the GENIUS Act currently mandate a zero *nominal* interest rate, our model supports a slightly different benchmark: from the perspective of optimal liquidity insurance and risk-sharing, the efficient allocation is achieved when stablecoins offer a zero *real* interest rate (van Buggenum *et al.*, 2023). The stricter regulatory choice of

[19] A historical parallel is the U.S. Regulation Q era, which prohibited interest on demand deposits (checking accounts) for decades; that prohibition was repealed effective July 21, 2011.

prohibiting all interest payments can nonetheless be justified as a precautionary measure to prevent destabilizing dynamics, especially in the early phases of adoption (see also Gersbach, 1998, in the context of free banking).

Over time, however, if risks related to disintermediation and broader systemic stability prove manageable, there may be scope to revisit this constraint, particularly in inflationary environments. This appears especially plausible if the traditional system catches up by offering similarly efficient digital money through tokenized deposits and wholesale CBDC-based settlement arrangements (see also P.13). In that case, the incremental disintermediation risk from interest-bearing stablecoins would likely be smaller, and allowing moderate nominal interest payments could help level the playing field across regulated digital money forms.

The current regulatory approach to interest is clearest in the EU. MiCA's interest ban applies not only to stablecoin issuers but also covers crypto-service providers, defines "interest" broadly, and prohibits indirect third-party benefit schemes. By contrast, the U.S. framework is more ambiguous. Although the GENIUS Act prohibits issuers from paying interest directly, it remains silent on whether digital asset platforms or other third parties may offer yield, rewards, or staking programs linked to stablecoins. This gap has triggered substantial debate and is now a key focus of the Treasury's ongoing rulemaking process (see U.S. Treasury, 2025a, Question 14).

Not surprisingly, views on the scope of the prohibition have sharply diverged (see Ocampo, 2025). U.S. banking associations such as the American Bankers Association (ABA) and the Conference of State Bank Supervisors (CSBS) argue for a broad reading of the provision that captures indirect payments, including rewards or loyalty schemes offered through affiliates, digital asset service providers, or other third parties. Industry actors, by contrast, including the Crypto Council for Innovation (CCI), crypto platforms such as Coinbase, and other crypto intermediaries, advocate a narrower interpretation under which third-party reward and loyalty programs should not be subject to the issuer-level prohibition. They urge regulators to adhere strictly to the statutory language of the GENIUS Act and caution against "rewriting Congress's carefully drawn lines".

Policy and academic commentary is similarly divided. One camp favors a strict non-remuneration approach, emphasizing that stablecoins should function primarily as payment instruments rather than investment vehicles, and warning that interest-bearing features could intensify deposit substitution, disintermediation, and related financial-stability risks (e.g., Ocampo, 2025; BoE, 2025a). Others, including Uhlig (2025), take a more permissive view, arguing that allowing some form of remuneration could foster healthy competition in the financial sector, provided appropriate safeguards are in place (see also Bindseil, 2025).

While the final regulatory outcome in the U.S. remains uncertain, a plausible outcome is that indirect remuneration schemes, especially when coordinated with issuers as affiliate/partner-financed rewards, will face restrictions. This interpretation is supported by Section 4(h)(1) of the GENIUS Act, which instructs regulators to prevent evasion, and by the U.S. Treasury's explicit focus on indirect payments in its Advance Notice of Proposed Rulemaking (ANPRM, Question 14).

P.9 Examine stress-contingent redemption barriers

In times of market stress, stablecoin issuers may face sudden surges in redemption demand that threaten their reserve base and destabilize the peg. Large-scale, forced asset liquidations can also spill over into short-term funding markets, amplifying volatility and contagion, much like past runs on MMFs. A potential tool to mitigate these risks is the introduction of redemption barriers, i.e., mechanisms that temporarily limit or disincentivize withdrawals. These tools have already been used in the regulation of MMFs (Voellmy, 2021), where funds can (and in some regimes must) impose temporary liquidity fees or suspend redemptions to prevent runs. The financial-stability rationale carries over to stablecoins: excessive outflows can trigger self-reinforcing secondary market discounts and arbitrage-based run dynamics (van Buggenum *et al.*, 2023).

Nevertheless, the EU's MiCA and the U.S. GENIUS Act currently take a rigid approach, mandating prompt redemption at par, at minimal or no cost, thereby leaving little room for such stabilizing tools. One rationale is functional: unlike MMFs, stablecoins are intended to serve as a means of payment, and they become money-like only to the extent that users can rely on no-questions-asked acceptance at par. Stress-contingent gates or fees may therefore protect reserves but at the cost of weakening singleness (see also P.7), since the mere prospect of redemption frictions can itself induce discounts and fragmented acceptance, especially under stress. This highlights a potential trade-off: redemption barriers may strengthen the run-resilience of stablecoins by reducing fire-sale pressure, yet they may undermine their role as a medium of exchange when "moneyness" depends on unconditional par convertibility (see also Ma, Zeng and Zhang, 2025).

Our own research shows that, if carefully designed, redemption barriers need not trigger depegging in secondary markets (see Section 2.4). However, in our framework stablecoins primarily serve as a store of value and insurance device against liquidity shocks rather than as a means of payment. Further work is therefore needed to assess how redemption barriers interact with widespread transactional use, where par acceptance and singleness considerations are first-order.

P.10 Prevent criminal abuse while preserving user privacy

Beyond financial stability risks, stablecoins raise concerns about illicit finance: they can move value quickly and outside traditional banking, which can facilitate money laundering, terrorism financing, and sanctions evasion. Regulators must enforce anti-money laundering and counter-terrorist financing (AML/CFT) and sanctions compliance not only for issuers, but also across the broader stablecoin ecosystem, including wallet providers, exchanges, and custodians. These risks have manifested in practice: Tether, in particular, has been repeatedly linked to illicit activity, including fraud networks, terrorist financing, and sanctions evasion (Chainalysis, 2025).

MiCA and the GENIUS Act enhance AML/CFT safeguards, particularly by requiring intermediaries to conduct customer due diligence (CDD/KYC) and by applying the travel rule, that is, the obligation to transmit originator and beneficiary information alongside stablecoin transfers. Nonetheless, significant gaps remain, especially (i) in the context of cross-border transactions involving foreign intermediaries that may not be subject to, or fully compliant with, equivalent AML/CFT standards; and (ii) in peer-to-peer transfers between self-hosted wallets, which often fall outside the scope of formal AML/CFT obligations.

Recent proposals for addressing these blind spots include, e.g., Aldasoro, Frost, Lim, Perez-Cruz and Shin (2025), who suggest utilizing the transparent nature of blockchain transaction histories to develop an "AML compliance score", that is, a risk-based metric estimating the likelihood that a given unit of a crypto-asset has been associated with illicit activity. Such a score could be operationalized to flag and screen suspect assets at critical junctures, particularly at fiat on- and off-ramps. In addition, the BIS (2025) notes that artificial intelligence (AI) could strengthen AML/CFT enforcement by identifying suspicious patterns in payment data and supporting compliance functions. Examples include AI "co-pilots" that assist analysts and, in more automated setups, agents that replicate routine tasks such as compiling evidentiary material and drafting suspicious activity reports.

At the same time, AML/CFT safeguards must be carefully balanced against privacy in financial transactions. Payment data can reveal sensitive personal information and can be used not only to monitor but also to restrict access to financial services. Broad surveillance frameworks, even if well-intentioned, risk eroding civil liberties and enabling financial censorship (e.g., Oordt, 2025). Safeguards should therefore be designed to preserve user privacy wherever possible, for example by building on recent proposals for privacy-preserving compliance frameworks (e.g., Duffie, Olowookere and Veneris, 2025).

P.11 Address regulatory gaps such as multi-issuer stablecoins

In a multi-issuer stablecoin structure, "the same" token is issued in multiple jurisdictions by different legal entities under common control and marketed as fully fungible across borders. A live example is USDC: since July 1, 2024, Circle has described USDC as being issued both by its U.S. entity and by an EU-authorized issuer (Circle SAS in France) under MiCA, while remaining fully fungible as one token from a user's perspective.

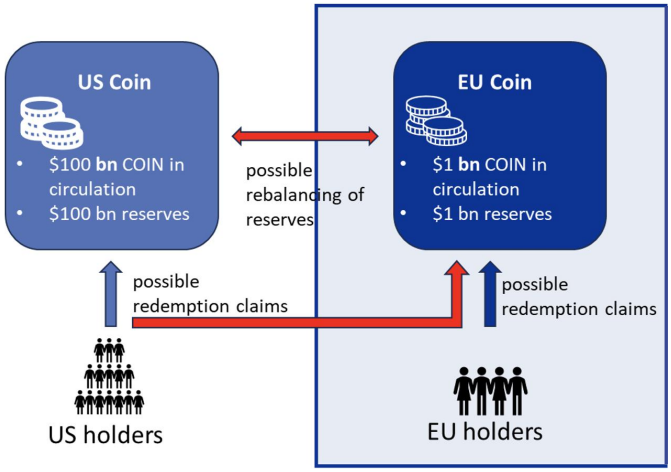
Recent analyses by the European Systemic Risk Board (ESRB, 2025a, 2025b) and Portes (2025) identify this structure as a material regulatory gap in the EU's MiCA regime: while MiCA contains detailed safeguards for joint issuance within the EU (including requirements that effectively align reserve management, custody, and redemption planning), it does not clearly specify how cross-border co-issuance should be treated when an EU issuer and a third-country affiliate jointly circulate fungible tokens marketed under the same name (as in USDC's publicly described dual-issuer structure). The core problem is that fungibility blurs accountability and undermines the regulatory logic of ringfenced reserves: EU entities may face redemption pressure linked to tokens originally issued abroad, while reserve assets are fragmented and potentially subject to third-country legal constraints or even crisis-time ringfencing (see Figure 5). This creates powerful run incentives and regulatory arbitrage: holders can redeem preferentially where terms are most favorable, and the MiCA ban on redemption fees can further amplify arbitrage-driven redemptions even when secondary-market prices deviate only modestly from par.[20]

Beyond investor protection concerns, multi-issuer stablecoin structures can become macroprudentially relevant through spillovers to banks. Portes (2025) highlights that for e-money institutions, reserve asset requirements (in particular, large amounts held as deposits with EU banks) can transmit redemption runs into bank liquidity stress (see also P.2), and that the absence of an aggregate cap on any one bank's stablecoin-related liability may encourage the emergence of "crypto-friendly" banks with concentrated exposures.

The supervisory challenge is compounded by limited visibility over where tokens are held, especially in self-hosted wallets, making it difficult to measure the EU-relevant circulating supply, calibrate buffers, or credibly stress test redemption behavior. A robust response should therefore close the fungibility loophole rather than merely add incremental disclosure. At a minimum, authorities should require that any token marketed as an "EU stablecoin" has both a single legally responsible issuer for EU distribution and redemption, and reserve assets that are enforceably available to meet EU redemptions even under stress.

[20] Even if non-EEA holders cannot redeem directly with the EU issuer, fungibility implies that secondary-market transfers can shift tokens to EEA-based holders who can redeem, so redemption pressure can migrate to the EU entity regardless of where the token was originally issued.

Figure 5: Stablecoin multi-issuer problem under MiCA



Source: Based on ESRB (2025b).

Where cross-border issuance remains permissible, the burden should be on the issuer to demonstrate an enforceable structure that eliminates ambiguity and arbitrage, for example through full joint liability across entities for redemption of all fungible tokens, a consolidated and auditable reserve-management framework, and legally robust arrangements that prevent third-country ringfencing from impairing EU redemption rights. In parallel, supervisors can treat multi-issuer structures as an aggravating factor in significance and buffer assessments (including higher own-funds and liquidity requirements), and, where needed, impose issuance limits or prohibit such schemes.

P.12 Align international regulatory frameworks

Stablecoins are inherently cross-border: a USD-backed token issued in one country can, in principle, be held and transacted globally—which is precisely where their promise as a fast, low-cost instrument for international transactions comes from. The scale of international crypto activity is also empirically meaningful. Using a novel bilateral flow dataset for major cryptoassets and stablecoins, Auer, Lewrick and Paulick (2025) estimate that cross-border transactions amounted to about USD 600bn in Q2 2024; over the four quarters from Q3 2023 to Q2 2024, stablecoins (USDT and USDC) accounted for roughly two-thirds of the measured volume. Without international coordination, fragmented rules risk regulatory arbitrage and a "race to the laxest jurisdiction". But fragmentation also threatens to undermine legitimate cross-border use: inconsistent requirements may prevent foreign-issued stablecoins from being offered or accepted in domestic markets, limiting their potential role in global payment and settlement systems.

International standard-setters such as the Financial Stability Board (FSB) and the Com-

mittee on Payments and Market Infrastructures together with the International Organization of Securities Commissions (CPMI-IOSCO) have begun issuing high-level principles to harmonize oversight. Policymakers should continue to coordinate on core issues such as taxonomy (what qualifies as a stablecoin versus other crypto-assets), minimum safeguards for significant global stablecoins, mutual recognition or comparability regimes, and supervisory information-sharing. In particular, harmonized standards would help facilitate cross-border licensing pathways, for example, by making it easier for foreign stablecoins to qualify under the U.S. GENIUS Act's "comparable regime" or to obtain authorization under the EU's MiCA framework.[21]

A further dimension of international alignment concerns financial integrity. The IMF (2025) emphasizes that the FATF International AML/CFT Standards apply to stablecoins, so that entities performing key functions (issuance, redemption, transfer, custody) may fall under AML/CFT obligations as virtual asset service providers (VASPs) or financial institutions, including risk assessments, customer due diligence, transaction monitoring, suspicious-transaction reporting, recordkeeping, sanctions screening, and "travel rule" information-sharing for transfers. Because stablecoins are borderless, effective implementation hinges on consistent cross-country supervision and close cooperation among AML/CFT supervisors and law-enforcement authorities. It also requires addressing the additional risks posed by peer-to-peer transfers via unhosted wallets, where FATF guidance discusses measures such as limiting VASP interactions with non-obliged entities, or imposing enhanced due diligence and recordkeeping when such interactions are permitted.

Beyond AML/CFT, harmonization of private-law building blocks can also support cross-border usability: the UNIDROIT Principles on Digital Assets and Private Law provide guidance on transfer, custody, security interests, conflict-of-laws connecting factors, and insolvency segregation of client-held digital assets (including "linked digital assets", i.e., stablecoins), helping reduce legal uncertainty for cross-border holding and settlement (IMF, 2025).

P.13 Explore options to modernize the traditional monetary system

Complementing reactive stablecoin regulation, a more proactive response to the rise of stablecoins would be to ensure that digital payment options embedded in the traditional banking and payments system become cheaper, faster, and more convenient, including for cross-border transfers. Rather than relying primarily on restrictions, authorities can foster credible alternatives that replicate the user-facing advantages of stablecoins while operating within the established regulatory perimeter and trusted two-tier monetary system. This approach could mitigate sev-

[21] Switzerland, which is currently in the consultation phase for developing a dedicated regulatory regime for stablecoins, explicitly references the FSB and CPMI-IOSCO guidelines in its consultation paper published in October 2025 (EFD, 2025).

eral stablecoin risks at once, including currency substitution, threats to monetary sovereignty, platform market power, and risks to the integrity of the financial system, as well as the migration of payments, liquidity, and data into foreign ecosystems.

One route is to encourage bank-based solutions such as tokenized deposits or other forms of regulated commercial-bank money on programmable rails. Because these instruments remain claims on supervised deposit-taking institutions, they are embedded in the banking prudential regulatory framework and can inherit core safeguards of the banking system, including robust AML/CFT controls, resolution regimes, and, where applicable, deposit insurance and access to central bank liquidity. As stressed by the BIS (2025), this approach may be preferable to relying on stablecoins as the primary future backbone and settlement anchor of the monetary system, because stablecoins still fall short against three benchmark tests: singleness (credible par settlement), elasticity (the ability to provide settlement liquidity on demand), and integrity (system-wide resilience against illicit use). This perspective also aligns with Cecchetti and Schoenholtz (2025), who emphasize that tokenized deposits can combine programmability and near-instant settlement with the legal and supervisory protections already attached to bank money. We add that preserving the interoperability bank deposits already achieve today requires tokenized-deposit designs that avoid fragmentation into bank-specific or consortium-specific closed loops, for example by relying on common standards, open interfaces, and multilateral clearing and settlement.

For some of the promised gains, especially instantaneous settlement on tokenized rails and cheaper, faster cross-border transfers, tokenized deposits typically need a complementary settlement asset in central bank money. This is where wholesale CBDC (or tokenized reserves) can matter: it can provide a safe, neutral settlement layer for atomic delivery-versus-payment (DvP) and payment-versus-payment (PvP) settlement, and for 24/7 settlement mechanics that are hard to replicate on legacy correspondent chains. This matters not least because stablecoins are already used as the settlement leg for activity on tokenized rails, and as tokenized securities scale, relying on stablecoins for DvP could shift large-value securities settlement away from central bank money, reintroducing settlement-credit and liquidity risk into a domain where finality is typically anchored in the safest asset and where stress-driven discounts or redemption frictions could propagate directly into market functioning.

Recent public-sector work explicitly explores the combination of tokenized deposits with a wholesale CBDC, including the BIS "unified ledger" concept as well as Project Agorá, which links tokenized commercial-bank money with tokenized central bank money for wholesale cross-border payments. Related multi-CBDC experiments such as Project mBridge illustrate how a shared wholesale platform can support near-real-time cross-border settlement and FX PvP in

a multi-jurisdictional setting, even though such pilots remain experimental and raise nontrivial governance and policy questions.

A second route is retail public digital money, i.e., a retail CBDC that provides households and firms with direct access to a digital form of central bank money. In the euro area, a retail CBDC remains a live policy option, subject to an eventual political decision and supporting legislation. In the United States, by contrast, current policy has moved strongly against retail CBDCs. Regardless of whether a retail CBDC is adopted, strengthening domestic wholesale settlement and upgrading bank-based digital money can capture much of the efficiency that users currently associate with stablecoins, while preserving the monetary anchor and keeping transactions within the traditional two-tier banking and payments architecture.

Directions for future research

Future research to inform the stablecoin policy debate should focus less on restating known risk categories and more on pinning down which mechanisms are of practical relevance, under what conditions, and at what scale. A first priority is measurement. We still lack reliable, comparable evidence on stablecoins' economic footprint outside crypto trading, including how much activity reflects genuine payment use versus settlement within crypto markets, and how usage differs across jurisdictions, user types, and transaction sizes. One promising approach is Auer *et al.* (2025), who construct quarterly bilateral country-to-country flow estimates for USDC and USDT across up to 184 countries over 2017–2024, illustrating both what is feasible and where attribution remains imperfect (see also Reuter, 2025). Further progress here will require better taxonomy and data integration, for example combining on-chain flows with off-chain information on intermediaries, user segmentation, and redemption channels.

Second, we need sharper evidence on stability dynamics. Many narratives hinge on runs, depegs, and redemption frictions, but the real-world determinants of stress remain only partially understood. Which features predict a loss of confidence, and how quickly do secondary-market discounts translate into redemption waves? How important are market microstructure and the distribution of redemption access? Which intermediaries act as shock absorbers versus amplifiers? Answering these questions calls for event studies, structural estimation, and careful identification using issuer disclosures, exchange order books, and wallet-level behavior around stress episodes.

Third, research should quantify equilibrium effects on the traditional financial system. It is not enough to say that stablecoins may cause disintermediation. We need estimates of the substitution elasticity between stablecoins, bank deposits, and money market instruments across different interest-rate environments and payment contexts, and a mapping from stablecoin growth

to bank funding conditions, credit supply, and short-term funding market liquidity. This includes how stablecoin reserve management interacts with Treasury and repo markets during stress, and whether stablecoin-driven flows meaningfully alter market functioning or volatility.

Fourth, the coexistence of stablecoins with tokenized deposits and CBDCs deserves a more unified treatment than the current literature provides. If the regulated two-tier system adopts tokenized deposit models and wholesale settlement upgrades, the relevant counterfactual changes, and so do the welfare trade-offs. Conversely, stablecoins backed by central bank reserves, also described as synthetic CBDCs, raise open questions about access, remuneration, and the boundary between private issuance and public money. Chiu and Monnet (2024) take a first step in this direction, arguing that outcomes depend on how a CBDC (or tokenized deposits) is designed (see also Chen and Phelan, 2025). A key research goal is to characterize which design combinations deliver payment efficiency while preserving par settlement, financial stability, and a workable monetary-policy transmission mechanism.

Fifth, monetary policy in a world with large private money-like liabilities remains underexplored, although recent work has started to clarify the basic transmission logic. For example, Bofinger (2025) emphasizes that the effectiveness of standard tools depends on whether stablecoins are primarily bank-based (deposit-backed) or bond-based (Treasury-backed). Building on such first-pass analyses, key questions remain: if stablecoins become a significant transaction medium, which policy instruments remain effective, and how robust and quantitatively important are the relevant balance-sheet channels? How do interest restrictions, reserve remuneration choices, and access to central bank infrastructure reshape competition between bank money and stablecoins, and how does that feed back into policy implementation?

Finally, the coming wave of implementation across jurisdictions creates an unusual opportunity for credible empirical learning. As regimes phase in, and as market participants adjust issuance structures, custody arrangements, and platform access rules, researchers will be able to exploit cross-country differences and staggered timelines to identify how usage patterns shift, which regulatory features measurably improve stability and par convertibility in stress, reduce illicit finance exposure, and preserve competitive market structure—and which instead raise costs or induce circumvention and regulatory arbitrage.

4 Conclusion

The rise of stablecoins forces a fresh look at foundational questions at the intersection of money, banking, and regulation. They reaffirm a core principle of monetary economics: the viability of any currency, whether public or privately issued, ultimately depends on the credibility of its issuer and the confidence of its users. The academic literature, including our own contribution,

suggests that stablecoins require careful design and robust regulation to avoid instability.

Our policy discussion underscores that getting stablecoin regulation right is not a matter of a single rule, but of a coherent package of mutually reinforcing safeguards. Legal clarity on redemption rights and insolvency treatment, conservative and transparent reserve management, and credible operational arrangements for par convertibility are the essential baseline. Once stablecoins reach critical scale, additional design choices become first-order: whether and under what conditions issuers should access central bank reserves; whether a narrowly tailored liquidity backstop is warranted for systemic issuers; how to preserve the singleness of money through interoperability, clearing, and settlement arrangements; and how to mitigate currency substitution, market-power, and illicit-finance risks. Against this backdrop, it is encouraging that MiCA and the GENIUS Act have already moved to define minimum standards. The ultimate test, however, will lie in implementation, supervision, and the ability to close loopholes as market structure adapts.

Looking ahead, the most robust path is likely a balanced one. Stablecoin regulation should be complemented by a structured exploration of ways to modernize the traditional monetary system, including regulated alternatives such as tokenized deposits, upgraded wholesale settlement infrastructures, and, where appropriate, retail or hybrid CBDC arrangements that preserve the monetary anchor while delivering the user-facing efficiencies that are driving stablecoin adoption. With proper safeguards in place, stablecoins may become a disciplined component of the financial system's digital architecture. Without them, and if private issuers scale outside a credible institutional framework, we risk repeating the mistakes of past episodes of unregulated banking.

A Regulatory Approaches in the US, the EU, Switzerland, and Other Jurisdictions

With the rapid rise of stablecoins, regulators worldwide have been racing to develop frameworks to oversee them. To date, approaches vary across jurisdictions, reflecting different philosophies and concerns. In this Appendix, we review major regulatory developments and proposals, focusing on the United States, the European Union, and Switzerland, and we briefly highlight selected approaches in other jurisdictions, including the United Kingdom.

A.1 United States

Before 2025, the U.S. approach to stablecoins was fragmented across state money-transmitter regimes, federal enforcement actions, and agency guidance. In 2021, the Biden administration called for urgent legislative action, recommending that stablecoin issuers be regulated as insured depository institutions. In January 2025, the Trump administration issued an Executive Order mandating coordinated federal oversight of digital assets, paving the way for comprehensive legislation. The resulting GENIUS Act (Guiding and Establishing National Innovation for U.S. Stablecoins), enacted on July 18 2025, created the first unified federal framework for so-called payment stablecoins (U.S. Congress, 2025).

Under Section 2(22) of the GENIUS Act, a payment stablecoin is a digital asset designed for use in payments or settlement whose issuer is obligated to redeem the token for a fixed amount of monetary value and represents (or creates a reasonable expectation) that it will maintain a stable value. Because "monetary value" is defined by the Act as a national currency (or a deposit denominated in a national currency; Sect. 2(17)), the framework is effectively confined to single-currency, fiat-referenced tokens (e.g., USD-pegged), and does not extend to algorithmic, crypto-collateralized, or multi-asset ("asset-referenced") designs.

Bank deposits, including "deposits recorded using distributed ledger technology" (i.e., tokenized deposits) are explicitly excluded from the definition of a payment stablecoin (Sect. 2(22)(B)(ii)). Tether and USDC, the two stablecoins currently dominating the market, both fall squarely within the GENIUS Act's payment stablecoin category.

Issuer authorization. The Act introduces a dual licensing regime for the issuance of payment stablecoins. Non-bank entities can be authorized either as Federal Qualified Payment Stablecoin Issuers under Section 5, or as State Qualified Issuers under a "substantially similar" certified state regime under Section 4(c). Federal-qualified issuers are licensed and supervised exclusively by the Office of the Comptroller of the Currency (OCC) and enjoy preemption of state licensing and supervision requirements. State-qualified issuers are licensed and supervised by their home-state regulator and do not need separate licenses for issuance in other states; they are generally

limited to an outstanding issuance of USD 10 billion, unless a waiver is granted by the primary federal payment stablecoin regulator (Sect. 4(d)). While both authorization paths allow legal issuance under the Act, most large-scale issuers may prefer the federal license because it provides a uniform national framework, explicit preemption of state licensing/supervision requirements, and no issuance cap.

Insured depository institutions cannot issue payment stablecoins directly; they must do so through a subsidiary approved under Section 5, and once approved that subsidiary benefits from federal preemption of state licensing requirements for stablecoin issuance. Uninsured national banks (OCC-chartered) and federal branches of foreign banks (OCC-licensed) must also obtain Section 5 approval to issue; once approved, they are considered Federal Qualified Payment Stablecoin Issuers and, as such, are supervised exclusively by the OCC and enjoy federal preemption of state licensing and supervision requirements for issuance.

The Act explicitly prohibits any public company (including its majority-owned subsidiaries or affiliates) that is not "predominantly engaged in one or more financial activities" from issuing a payment stablecoin, unless it obtains clearance from the newly established Stablecoin Certification Review (SCR) Committee (Sect. 4(a)(12)(B)). To do so, the SCR committee must unanimously determine that the issuance does not pose a material risk to U.S. financial stability or the banking system, and that it complies with strict safeguards on data usage and anti-tying rules—for example, prohibiting conditioned rewards such as "discounts only if you pay with our coin".[22]

Collectively, all lawful U.S. domestic payment stablecoin issuers are referred to as Permitted Payment Stablecoin Issuers (PPSIs). Regulators can investigate suspected breaches of the Act, require fixes, and, if necessary, suspend or limit a coin's operations, levy significant fines, and ultimately withdraw the issuer's authorization.

Reserves and redemption. PPSIs must honor timely and full redemption at par value upon request, ensuring that holders can reliably convert stablecoins back into fiat currency (Sect. 2(22), 4(a)). They must also maintain full one-to-one backing with high-quality liquid assets, including U.S. currency, demand deposits at deposit-insured banks, and short-term ($\leq$ 93 days remaining maturity) U.S. Treasuries (Sect. 4(a)(1); see also Boss, 2025). The Act also permits central bank reserve balances as eligible reserve assets, but it does not create any new entitlement to Federal Reserve master accounts, so most stablecoin issuers in practice will be unable to utilize this option. Several other reserve parameters, such as liquidity thresholds and concentration limits, are not specified in the statute and will be defined through forthcoming

[22]The provision is widely understood as a deliberate constraint on Big Tech, aimed at preventing dominant platforms from using proprietary stablecoins to entrench market power, distort competition, or raise monetary-sovereignty concerns.

regulatory rulemaking. In addition, issuers are subject to strict requirements regarding reserve segregation, transparency, and public disclosure, reinforcing the integrity and accessibility of the redemption mechanism.

Interest. All payment stablecoin issuers are prohibited from paying a holder "any form of interest or yield ... solely in connection with the holding, use, or retention" of a coin (Sect. 4(a)(11)). As U.S. Treasury and Congressional commentary have indicated, the rationale is to ensure payment stablecoins function as money-like instruments, not as investment vehicles. While the Act directly restricts issuers, it does not explicitly prohibit digital asset service providers (DASPs) or other third parties from offering interest or yield on payment stablecoins. To clarify this and related issues, the U.S. Treasury issued an Advance Notice of Proposed Rulemaking (ANPRM; U.S. Treasury, 2025a) on September 19, 2025, inviting public comment on the interpretation of Section 4(a)(11)—including whether it covers indirect yield payments (ANPRM Q14). This rulemaking process may also address "staking", which is likewise not expressly mentioned in the Act. The regulatory treatment of third-party interest offerings and staking-like reward programs will therefore depend on the outcome of forthcoming rulemaking.

Custody and DASPs. The GENIUS Act also covers DASPs, including platforms that sell or facilitate trading of payment stablecoins, and anyone providing custody or safekeeping services for reserve assets, coins used as collateral, or the private keys used to issue payment stablecoins (Sect. 2(7), 10). Only supervised entities (federally or state-supervised banks/trusts or other federally supervised custodians) may provide custody/safekeeping and the Act hard-codes core safeguards, such as client-asset segregation, no commingling, and protection from custodian creditors; further operational specifics will be set via rulemaking; self-hosted wallets are excluded.

Interoperability. The GENIUS Act includes an explicit interoperability standards provision, but it is framed as a standards-setting mandate rather than a self-executing technical rule. Section 12 provides that the primary Federal payment stablecoin regulators, in consultation with NIST and other relevant standard-setting bodies, shall assess and, if necessary, may prescribe standards for issuers to promote "compatibility and interoperability" with (i) other permitted payment stablecoin issuers and (ii) the broader digital finance ecosystem, explicitly referencing accepted communications protocols and blockchains, whether permissioned or public. Accordingly, the GENIUS Act clearly elevates cross-system interoperability as a policy objective, while delegating the concrete technical content to subsequent standards development and rulemaking.

AML/CFT. The GENIUS Act treats PPSIs as financial institutions under the Bank Secrecy Act (Sect. 4(a)(5)). Issuers must run a risk-based AML/CFT program, including customer identification and know-your-customer (CDD/KYC), monitoring, suspicious-activity reporting,

recordkeeping, and sanctions screening, under rules issued by the U.S. Department of the Treasury and supervised by the OCC or state regulators. The Bank Secrecy Act's "travel rule" applies: originator and beneficiary information must accompany payment stablecoin transfers of USD 3,000 or more between covered institutions (i.e., money transmitters and banks).

Capital requirements and failure/insolvency. The GENIUS Act does not prescribe fixed capital ratios in the statute. Instead, it delegates authority to federal and state payment stablecoin regulators to set capital and other prudential requirements that are "tailored to the business model and risk profile" of issuers through rulemaking (Sect. 4(a)(4)). In response to the Treasury's ANPRM, various stakeholders (e.g., CSBS, 2025; ICBA, 2025) have advocated for flexible, risk-based capital requirements broadly aligned with bank-like standards. These could be calibrated to reflect issuer-specific vulnerabilities, such as run/operational risks and reserve composition—for example, requiring higher buffers when issuers hold significant shares of uninsured bank deposits or less-liquid instruments.

For a non-bank PPSI (including a bank subsidiary approved under Sect. 5), insolvency generally proceeds under the U.S. Bankruptcy Code, with special, statute-level protections for holders (Sect. 11): (i) the statutorily required reserve assets are excluded from the bankruptcy estate; (ii) courts are directed to order prompt, pro-rata distributions of those reserves to tokenholders; and (iii) if reserves are insufficient, tokenholders' deficiency claims receive super-priority over all other claims. Collectively, these features shield required reserves from general creditors and elevate holders above all other creditors.[23]

Jurisdiction and legal scope. The Act further clarifies that payment stablecoins are neither securities nor commodities, thereby limiting overlapping jurisdiction from the U.S. Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) within the scope of the statute (Sect. 17). This statutory carve-out reduces legal uncertainty, mitigates the risk of conflicting enforcement actions, eliminates duplicative compliance burdens, and eases platform listings and distribution. Stablecoins that do not qualify as payment stablecoins under the GENIUS Act (e.g., crypto-collateralized or algorithmic coins) fall outside the statute's Section 17 carve-outs and thus remain exposed to potential classification as securities or commodities—raising legal uncertainty, regulatory risk, and compliance burdens. They also lose the Act's federal preemption and licensing clarity, leaving them subject to state money-transmitter regimes. Once platform restrictions take effect in July 2028, such coins may face de-listing or distribution barriers in U.S. markets.

[23] If the PPSI is organized as an uninsured national bank (or a federal branch of a foreign bank) approved under Section 5, it would be resolved outside the Bankruptcy Code—under the OCC's National Bank Act receivership regime (or the International Banking Act for federal branches). Not all of Section 11's special protections apply in this case: Section 11(a) still gives token holders first claim on the required reserves, but the super-priority for deficiency claims does not carry over.

Third-country access. Foreign entities seeking to offer payment stablecoins in the United States must either obtain U.S. authorization as a PPSI, or originate from a jurisdiction that the U.S. Treasury has formally recognized as having a "comparable" regulatory regime. In the latter case, the issuer must register with the OCC as a Foreign Payment Stablecoin Issuer (FPSI), subject to additional requirements such as maintaining sufficient U.S.-based liquidity (Sect. 18). Once the Act's platform restrictions take effect, payment stablecoins may no longer be offered or sold to U.S. persons unless the issuer qualifies under one of these two routes (Sect. 3(b); see also Bartylla, 2025).

State of play. While the GENIUS Act represents a major step toward legal clarity, prudential safeguards, and monetary integrity, key implementation details—including concentration limits and other parameters for the statute's enumerated reserve assets, custodian standards, independent audit/attestation mechanics, and the operational treatment of foreign-issued tokens (e.g., comparability designations)—remain subject to Treasury-led rule-making, which began with the ANPRM on September 19 2025 (see also Beam, Bisanz, Casteluccio, Irwin, Olmem, Resnikoff, Taft and Truesdale, 2025). Most substantive provisions of the GENIUS Act will not take effect until the earlier of 18 months after enactment or 120 days after the primary Federal payment stablecoin regulators (including the OCC and the Federal Reserve, in coordination with the Treasury) issue final implementation regulations.

A.2 European Union

The EU's Markets in Crypto-Assets Regulation (MiCA) establishes a comprehensive, harmonized framework for crypto-assets, distinguishing between e-money tokens (EMTs) and asset-referenced tokens (ARTs). Under Article 3, an EMT is a crypto-asset that "purports to maintain a stable value by referencing the value of one official currency", whereas an ART is a crypto-asset that "purports to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies" (EU, 2023). In practice, ARTs correspond to basket-backed or multi-asset stablecoins (including crypto-collateralized coins, but excluding purely algorithmic designs), while EMTs are single-currency fiat-pegged tokens—conceptually similar to payment stablecoins under the U.S. GENIUS Act.

MiCA's scope explicitly excludes bank deposits (Art. 2(4)), and the European Banking Authority (EBA) has confirmed that this exclusion covers tokenized deposits, i.e., bank deposits recorded on distributed ledger technology (EBA, 2024). The two dominant stablecoins in circulation, Tether and USDC, both fit MiCA's EMT definition.

MiCA's provisions on stablecoins (ARTs and EMTs) entered into application on June 30 2024, while the remainder of the regulation took effect on December 30 2024; transitional

arrangements allow existing crypto-asset service providers (CASPs) to operate until July 1 2026 under national law (ESMA, 2024b).

Issuer authorization. Issuers of ARTs must obtain authorization from a national competent authority under MiCA, or be credit institutions (i.e., banks) complying with Article 17 (white paper plus notifications) and applicable Title III requirements (governance, reserve/custody, redemption, etc.). EMTs may be issued only by banks or electronic money institutions (EMIs) authorized under the Electronic Money Directive (EMD2), with MiCA requiring notification of the crypto-asset white paper and of the intention to offer to the public or to seek admission to trading. "Significant" ARTs and "significant" EMTs issued by EMIs fall under EBA-led supervision.[24] National competent authorities can investigate breaches, suspend/withdraw authorizations, impose administrative penalties, and order online takedowns.

Reserves and redemption. ART issuers must provide a standing redemption right at the market value of the referenced assets or in kind (Art. 39); EMT holders have a right to redemption at par in fiat at any time (Art. 49). Redemption of ARTs/EMTs must be free of charge (with limited exceptions).

All ART issuers must maintain a legally segregated reserve of assets equal to outstanding claims (Art. 36). This 1:1 reserve-of-assets regime likewise applies to EMIs issuing significant EMTs and may be extended to non-significant EMTs by the competent authority. If not extended, non-significant EMIs are instead subject to EMD2 safeguarding plus MiCA Art. 54 composition rules, which together also amount to full (1:1) backing of outstanding EMTs.

By contrast, EMTs issued by banks fall outside MiCA's reserve-of-assets framework (and neither MiCA Art. 54 nor EMD2 applies to them). These tokens are instead backed by the issuing bank's general balance sheet (EBA, 2024, p. 19) and subject to the broader prudential regime applicable to banks (e.g., capital and liquidity requirements), rather than a legally segregated 1:1 reserve (EBA, 2024b, 2024c, 2025a). Nonetheless, MiCA Art. 49 obliges all issuers, including banks, to issue and redeem EMTs at par in fiat.

Eligible reserve assets and portfolio constraints. For ARTs and for EMIs issuing significant EMTs, MiCA narrows reserves to (i) deposits with credit institutions and (ii) highly liquid financial instruments (HLFIs) with minimal market, credit and concentration risk (Arts. 36(4)(d), 38(1), 58(1)(a)). In conjunction with the EBA's draft regulatory technical standards

[24] MiCA classifies an ART or EMT as "significant" when at least three of the following criteria are met: (a) the number of holders exceeds 10 million; (b) the value issued, market capitalization, or reserve size exceeds EUR 5 billion; (c) average daily transactions exceed 2.5 million and €500 million in aggregate value; (d) the issuer is a Digital Markets Act gatekeeper; (e) the issuer's activities are significant on an international scale, including use for payments and remittances; (f) the token/issuer is interconnected with the financial system; (g) the same issuer also issues at least one additional ART or EMT and provides at least one crypto-asset service (Art. 43(1)–(2), applied to EMTs via Art. 56(1)).

(RTS), MiCA further requires that, for tokens referencing official currencies, at least 30 percent per referenced currency must be held as deposits, rising to 60 percent for significant tokens; the remainder may be invested in HLFI (EBA, 2024a).[25] The reserves must be legally and operationally segregated, held with qualified custodians, and subject to ongoing liquidity/risk checks and redemption planning. The EBA's draft RTS (EBA, 2024a; 2024b) provide further detail on the eligible types of HLFIs and the applicable portfolio constraints. In general, reserve holdings must be currency-matched to the reference asset(s), granular portfolio constraints apply, and exposures must be well diversified across banks, custodians, and issuers to avoid single-name risk.[26]

Bank-issued EMTs fall outside MiCA's reserve-of-assets requirements, and neither MiCA Art. 54 nor EMD2 applies to them; instead, they rely on the prudential regime for credit institutions. EMIs issuing non-significant EMTs are safeguarded under EMD2 plus MiCA Art. 54 composition rules, unless a national authority explicitly extends the MiCA reserve-of-assets regime (EBA, 2024c, 2025a). Accordingly, the 30 / 60 percent floor does not apply to bank-issued EMTs, but the 30 percent Art. 54 floor does apply to EMI-issued non-significant EMTs.

While MiCA itself does not expressly prohibit reserve assets from being held in central bank money, the implementing draft RTS and Eurosystem account-access decisions jointly make this option largely unavailable in practice, so that both ARTs and non-bank issued EMTs are effectively prevented from being backed by central bank reserves. This constraint also extends to attempts to replicate such backing indirectly: The EBA's draft RTS reject proposals to treat fiduciary or escrow accounts at central banks as eligible forms of MiCA reserve assets. ECB Decision (EU) 2025/222, together with the EBA Opinion EBA/Op/2025/08 on the PSD2–MiCA interplay, then prohibits Eurosystem central banks from offering safeguarding accounts to non-bank payment service providers or CASPs and clarifies that TARGET and TIPS accounts shall not be regarded as safeguarding accounts. Taken together, this means that, in practice, MiCA reserves cannot include central bank money.

Interest. MiCA Articles 40 and 50 prohibit any form of interest on ARTs and EMTs, reinforcing their use as payment instruments rather than investment products. The ban applies not only to issuers but also to CASPs. "Interest" is defined broadly as any remuneration or other benefit linked to the holding period, including net compensation, discounts or equivalent benefits, whether paid directly by the issuer or by third parties, which prevents circumvention

[25] For non-fiat-referencing ARTs (e.g. commodity-backed or mixed non-fiat baskets), the 30 / 60 percent deposit floor does not apply.

[26] As of November 2025, the European Commission has signaled its intention to endorse, subject to amendments, the EBA's two draft RTS on reserve-of-assets requirements. Several of the Commission's proposed changes, particularly those relating to the liquidity and composition of ART reserve portfolios, have been formally challenged by the EBA (2025b) on the grounds that they are inconsistent with MiCA's prudential framework. As a result, the RTS remain pending final adoption.

via partner programs.

Although MiCA does not explicitly mention "staking", ESMA has provided interpretive guidance. As noted in ESMA (2025b, #61), MiCA does not in general regulate or prohibit staking arrangements. However, the permissibility of staking ARTs or EMTs hinges on whether the specific structure constitutes time-linked remuneration falling within the scope of Articles 40 or 50. The line is subtle, and legal commentary remains cautious. For example, Lexify (2024) notes that while CASP-operated staking services may be permitted for other crypto-assets—such as Ethereum (see also ESMA, 2025b, #57)—staking of ARTs or EMTs is prohibited if it produces interest-like effects.

Custody and CASPs. Under MiCA Title V, CASPs providing custody and administration of crypto-assets on behalf of clients (Art. 3(1)(17)) must use clear custody terms, keep client-by-client registers of positions, issue regular statements, be able to return client assets on request, and segregate client assets operationally and legally from their own assets; they are liable for losses attributable to them (Art. 75). CASPs must also safeguard clients' funds and prevent the use of clients' crypto-assets for their own account (Art. 70(1)). Self-hosted (non-custodial) wallets are out of Title V's scope.

MiCA also contains a targeted interoperability/portability requirement for significant ARTs and significant EMTs: issuers must ensure that the token can be held in custody by different authorized CASPs (including providers outside the issuer's group) on a fair, reasonable and non-discriminatory basis (Art. 45(2), as applied to significant EMTs via Art. 58(1)(a)).

AML/CFT. MiCA does not introduce new AML/CFT rules. Instead, CASPs are explicitly classified as obliged entities under the AML Regulation (EU) 2024/1624 and must perform customer due diligence (CDD/KYC), ongoing monitoring, and suspicious-activity reporting. MiCA hooks into AML only at authorization: CASP applicants must demonstrate AML/CTF controls and licensing is tied to checks under the EU AML framework. Banks and EMIs that issue EMTs are already obliged entities under EU AML law. Non-bank issuers are subject to AML regulation insofar as they qualify as EMIs or perform CASP activities; otherwise, AML/CFT duties derive from applicable national law.

The Transfer of Funds Regulation (EU) 2023/1113 applies the travel rule—i.e., the obligation to transmit originator and beneficiary information alongside a transfer—to all CASP-to-CASP crypto transfers, with no de minimis threshold. For interactions with self-hosted wallets, CASPs must always collect originator/beneficiary data; verification of wallet ownership is required for transfers above €1,000. Oversight will be strengthened by the Anti-Money Laundering Authority, which scales up from 2025 and begins direct supervision of selected entities in 2028.

Payment-use limits and monetary sovereignty. To protect monetary sovereignty, MiCA

introduces quantitative limits on the use of stablecoins for payments. If an ART, or an EMT denominated in a non-EU currency, exceeds a quarterly average of 1 million transactions and €200 million in value per day within a single currency area (e.g., the Euro Area), the issuer must halt further issuance and submit a remediation plan to reduce usage below those thresholds (Art. 23(1), as applied to EMTs via Art. 58(3)). Euro-denominated EMTs are not subject to these quantitative caps but remain subject to ongoing supervisory monitoring and reporting. Moreover, competent authorities may restrict issuance if the ECB or a relevant national central bank concludes that a token poses risks to monetary policy transmission, payment system integrity, or monetary sovereignty.

Third-country access and reverse-solicitation. Unlike the GENIUS Act, MiCA does not provide a third-country equivalence regime for stablecoin issuers. Foreign entities wishing to offer EMTs or ARTs in the EU must establish an EU-incorporated legal entity and obtain full authorization under MiCA. Direct cross-border issuance or marketing of stablecoins into the EU from non-EU jurisdictions is prohibited, reinforcing the bloc's emphasis on territorial supervision and regulatory perimeter control.

The only narrow carve-out lies on the CASP side via the reverse-solicitation exemption. Under MiCA Article 61, an EU-based client may engage a non-EU CASP only if the initiative is entirely theirs and unsolicited. Any form of marketing, such as advertisements, EU-facing websites, language targeting, affiliate arrangements, or sponsorships, immediately voids the exemption. As ESMA has emphasized, reverse-solicitation constitutes a prohibition with a narrow exception, not an alternative path to issuer authorization. National authorities are explicitly instructed to monitor and prevent circumvention (ESMA, 2024a, 2025a). Tokens acquired through reverse-solicitation remain outside MiCA's issuer framework. Consequently, the investor cannot rely on MiCA- or EMD2-based protections such as mandatory par-redemption, reserve segregation, or custody requirements. Instead, redemption rights and investor safeguards depend solely on the issuer's contractual terms and the applicable law of the issuer's home jurisdiction.

Capital requirements and failure/insolvency. Non-bank issuers of ARTs must hold own funds of at least 2% of reserve assets, rising to 3% for "significant" tokens (Arts. 35(1), 45(5)). EMIs (non-bank EMT issuers) follow the e-money rule of 2% of the average outstanding e-money in circulation; EMI-issued significant EMTs follow the ART-style regime, including the 3% rule (Art. 58). Supervisors can impose add-ons and require stress-testing via EBA standards. Bank issuers are subject to the general banking capital regime.

MiCA does not establish dedicated EU "stablecoin resolution" tools: in the event of insolvency, non-bank stablecoin issuers fall back on ordinary national insolvency law. MiCA instead requires recovery and redemption planning, and the EBA's guidelines explicitly frame scenarios

in terms of normal insolvency under national law. On creditor protection, MiCA mandates ARTs, and EMIs issuing significant EMTs, to segregate reserves legally and operationally from the issuer's estate and hold them in qualifying custody so that other creditors have no recourse to it (Arts. 36(2)–(3) and 37, as applied to significant EMTs via Art. 58(1)(a)). However, MiCA relies on applicable national law to give effect to segregation and does not itself grant a statutory super-priority in case of insolvency or create a bankruptcy-remote trust; hence legal outcomes still hinge on domestic insolvency rules and the quality of custodial arrangements. Bank-issued EMTs remain under the EU banking prudential and resolution framework; they must still prepare MiCA recovery and redemption plans for their EMT operations, specifically addressing stress scenarios (Arts. 46–47 via Art. 55); their token balances are not covered by EU deposit-guarantee schemes (Art. 51(4)(b)).

State of play. MiCA implementation is still ongoing through secondary technical standards issued by EBA and ESMA. These include draft RTS and Implementing Technical Standards (ITS), that is, detailed rules that specify how MiCA's prudential and reporting requirements are to be applied in practice. In October 2025, the EBA published opinions criticizing European Commission amendments to the draft RTS on liquidity and reserve-asset composition, underscoring that key technical parameters—such as eligible asset classes, liquidity buckets, concentration limits, and stress-testing methodologies—are not yet entirely settled (EBA, 2025b). Meanwhile, euro-denominated stablecoins have yet to gain meaningful traction in the market, with their combined capitalization still well below €1 billion as of late 2025.

A.3 Comparing MiCA to the GENIUS Act

While the U.S. GENIUS Act and the EU's MiCA framework share a common goal of ensuring the safety, stability, and proper oversight of stablecoins, they differ in scope, design philosophy, and regulatory architecture.

The most immediate difference lies in their regulatory perimeter. The GENIUS Act applies narrowly to payment stablecoins, defined as digital tokens referencing a single official currency and redeemable at par. MiCA, by contrast, adopts a broader taxonomy. It regulates both EMTs, which are analogous to payment stablecoins, and ARTs, which reference a basket of assets, commodities, or crypto-assets. Moreover, MiCA governs a wider set of crypto-assets and service providers beyond stablecoins.

For a meaningful comparison, the discussion below therefore focuses on MiCA's regulation of EMTs, as this segment most closely corresponds to the GENIUS Act's scope.

Shared foundations. Despite differences in detail, both frameworks impose core safeguards designed to ensure that stablecoins function as reliable payment instruments. Specifically, both

require (i) prompt redemption at par on demand; (ii) full (1:1) reserve backing with high-quality liquid assets; (iii) reserve segregation from the issuer's own assets; (iv) a ban on interest or yield, and (v) robust AML/CFT measures. Important divergences remain, however, in how these safeguards are implemented and in the institutional scope, as explored below (see also Table 3).

Institutional asymmetry: bank vs. non-bank issuers. A key divergence lies in the treatment of bank issuers. In the EU, banks issuing EMTs are exempt from MiCA's reserve-of-assets requirements (Arts. 54, 58), including strict 1:1 backing with segregated assets. Instead, their obligations stem from general EU banking law. The U.S. GENIUS Act, by contrast, applies a nearly uniform regime across issuer types. Insured banks are not permitted to issue payment stablecoins directly and must instead do so through an approved subsidiary. Regardless of issuer type, all GENIUS-compliant stablecoins are subject to core reserve requirements, including strict 1:1 backing and segregation.

While banks under MiCA can issue EMTs directly, they may also choose to do so via a licensed subsidiary, typically authorized as an EMI—a structure that mirrors the mandatory subsidiary requirement for insured depository institutions under the GENIUS Act. Direct issuance by banks offers certain regulatory advantages, including exemption from separate MiCA authorization and from the strict reserve-of-assets requirements. However, it can create operational entanglement, expose the bank's balance sheet to token-related risks, and carry reputational risks. In practice, direct-bank EMT issuance has so far been limited to smaller or early-stage projects (e.g., Banking Circle's EURI; ODDO BHF's EUROD), whereas larger, retail-oriented programs have typically been launched through dedicated EMI subsidiaries or joint ventures (e.g., SG-Forge's EURCV; AllUnity's EURAU; and the forthcoming Dutch EMT initiative backed by nine major banks).

Redemption fees. MiCA explicitly mandates that stablecoin redemptions must be free of charge, subject only to limited exceptions. By contrast, the GENIUS Act allows redemption fees so long as they're clearly disclosed in advance. While most retail users exit via secondary markets (i.e., sell on exchanges) and may not face issuer fees directly, such fees matter for arbitrage and during stress periods: higher redemption costs can delay peg restoration and show up as wider spreads on exchanges.

Reserve composition and liquidity structure. MiCA (partly through the EBA's draft RTS) imposes detailed and quantitative liquidity requirements. These include a 30 / 60 percent deposit floor, along with requirements for liquidity buckets, currency matching, and issuer diversification. The GENIUS Act, while requiring full HQLA backing and hard-coding a narrow asset menu with short maturity limits, delegates the calibration of specific liquidity thresholds,

Table 3: Comparison of stablecoin regulatory frameworks: EU MiCA vs. U.S. GENIUS Act

Dimension	**EU — MiCA**	**U.S. — GENIUS Act**
Scope	Distinguishes ARTs and EMTs (and other cryptoassets).	Defines payment stablecoins.
Who may issue	ARTs: Issuers authorized under MiCA or banks complying with MiCA's Title III. EMTs: Only banks or EMIs.	Federal OCC-chartered issuers or state-qualified issuers that meet federal standards.
Redemption rights	EMTs: redemption at par in fiat. ARTs: redemption at market value or in kind.	Redemption at par in fiat.
Reserves assets	ARTs and non-bank EMTs: 1:1 backing with segregated reserves; reserves limited to bank deposits and HLFI. Bank EMTs outside of MiCA's reserve-of-assets rules.	All payment stablecoins, including bank-issued ones: 1:1 backing with segregated reserves; reserves limited to HQLA.
Liquidity floors	ARTs and non-bank EMTs referencing a currency: minimum 30% of reserves as deposits; 60% for significant tokens.	No deposit floor in the Act; liquidity specifics to be set by regulators in rulemaking.
Intermediaries (platforms & custody)	Segregate and safeguard client assets; liable for attributable losses; no own-account use of clients' assets.	Segregate and safeguard client assets; operational specifics left to rulemaking.
Supervision	National authorities supervise issuers and CASPs; EBA supervision for significant tokens. ESMA/ECB provide support.	Federal issuers typically supervised by the OCC; state-qualified issuers by state regulators. Fed may take emergency actions.
Interest / yield	Any interest on ARTs/EMTs by issuers and CASPs, including indirect third-party benefits, is prohibited.	Issuers prohibited to pay interest; treatment of indirect yield payments (e.g. by platforms) will be clarified by rulemaking.
Capital requirements	Non-bank ARTs/EMTs: own funds $\geq 2\%$ of reserve assets / average outstanding e-money (3% if significant). Banks follow the general banking capital regime.	No fixed ratios in the Act; delegated to federal/state regulators by rulemaking; will be risk-based and issuer-specific.
Failure / insolvency	No dedicated resolution tools: ordinary national insolvency for non-banks; holder protection via legal/operational segregation and custody of reserves.	Reserves priority in any insolvency: if reserves are short, super-priority deficiency claim (Bankruptcy Code cases); reserves excluded from estate.
Cross-border access	No third-country equivalence for issuers; must establish an EU entity and obtain authorization. Narrow CASP-side carve-out: reverse-solicitation.	"Comparable foreign regime" route for foreign issuers. No reverse-solicitation carve-out.
Payment-use limits	ARTs and EMTs denominated in a non-EU currency face payment-use caps: 1m transactions / €200m per day.	No payment-use caps in the Act.
AML/CFT	CASPs are obliged entities under EU's AML rules; travel rule for CASP to CASP transfers with no de minimis threshold.	PPSIs fall under the Bank Secrecy Act; travel rule applies to transfers $\geq$ \$3,000 between covered institutions.

Abbreviations: AML/CFT = anti-money laundering / countering the financing of terrorism; ART = asset-referenced token; CASP = crypto-asset service provider; EMT = e-money token; EBA = European Banking Authority; EMI = electronic money institution; ESMA = European Securities and Markets Authority; HLFI = high-quality, highly liquid financial instruments; HQLA = high-quality liquid assets; OCC = Office of the Comptroller of the Currency.

portfolio composition, and diversification rules to future rulemaking.

MiCA's reserve regime is arguably more "market-based": it permits longer-maturity sovereign bonds so long as reserves are valued at market, independently re-valued, and subjected to liquidity stress-tests; this may expose issuers to interest-rate volatility and mark-to-market discipline. By contrast, the U.S. GENIUS Act limits reserve instruments to very short maturity (e.g., Treasuries $\leq$93 days remaining maturity), which simplifies operations but constrains portfolios to near-zero duration.

In addition, while MiCA-related implementation rules and ECB guidelines effectively prohibit non-bank stablecoin issuers from holding central bank reserves as backing assets, the GENIUS Act, at least in principle, permits such backing. In practice, however, this option remains largely inaccessible to most issuers, as the Act does not create any new entitlement to Federal Reserve master accounts.

Interest and yield. Both regimes ban issuer-paid interest. However, MiCA's ban explicitly covers CASPs, defines "interest" broadly, and prohibits indirect third-party benefit schemes. The GENIUS Act targets issuers but is silent on DASPs and other third-party yield or staking programs. These gaps are now under review as part of the U.S. Treasury's ongoing rulemaking (ANPRM Q14; U.S. Treasury, 2025b).

Failure and insolvency. The GENIUS Act provides explicit insolvency protections through amendments to the U.S. Bankruptcy Code: required reserve assets are excluded from the bankruptcy estate, and tokenholders receive super-priority for any shortfalls in these reserves. MiCA, by contrast, relies on national insolvency law and does not establish an EU-level stablecoin resolution regime. Reserve segregation is required, but legal enforceability hinges on national law, and there is no super-priority for token holders.

Licensing and territoriality. The GENIUS Act allows both federal and state licensing and grants access to foreign issuers under a "comparable regime" designation. MiCA, by contrast, requires full EU establishment and licensing; third-country access is prohibited, with the narrow reverse-solicitation exemption for CASPs. For example, USDC secured access to the EU market by obtaining an e-money institution license through its French subsidiary, Circle France SAS. This reflects the EU's emphasis on territorial supervision and the integrity of the internal market.

Monetary sovereignty and use restrictions. MiCA introduces quantitative caps on the use of non-euro stablecoins for payments: €200 million/day and 1 million transactions per currency area. The GENIUS Act contains no comparable caps, though concerns about monetary policy and financial stability may influence future implementation and rulemaking. The EU's more

restrictive stance in this area likely reflects the current composition of the global stablecoin market, which is heavily dominated by U.S. dollar-referenced tokens, a dynamic that raises greater sovereignty concerns for jurisdictions outside the dollar zone.

Implementation status. MiCA entered into force in 2024, with transitional arrangements for CASPs until mid-2026. Technical standards (RTS/ITS) are still being finalized. The GENIUS Act was enacted in July 2025 but many of its provisions will not be enforceable until late 2026 or 2027. The Act's platform restrictions will take effect even later, presumably in July 2028.

In sum, MiCA takes a broader and more prescriptive approach, with differentiated treatment of bank and non-bank issuers, detailed reserve rules (through EBA's draft RTS), and strong territorial control. The GENIUS Act offers a narrower statutory regime focused on fiat-pegged tokens, with uniform issuer treatment, stronger insolvency protections, and a more flexible access route for foreign issuers, but leaves important operational details to forthcoming rulemaking.

A.4 Switzerland

Switzerland combines a reputation for crypto innovation with a longstanding tradition of financial prudence. While it does not yet have a dedicated stablecoin law, the Swiss Financial Market Supervisory Authority (FINMA) applies a functional, technology-neutral "substance over form" approach, assessing stablecoin projects on a case-by-case basis under existing banking, AML, securities/collective-investment and payments law.

In practice, a fiat-pegged coin with a par-value redemption right is generally treated as a deposit-taking activity under the Banking Act (BankG). If issued by a licensed bank, e.g. as a tokenized deposit, it falls within the banking perimeter. For non-bank issuers, there are two main ways to avoid a full banking licence: (i) obtain a FinTech licence under Art. 1b BankG, subject to the CHF 100m cap and the requirement that client funds are neither invested nor interest-bearing; or (ii) rely on the Banking Ordinance exemption for liabilities covered by a Swiss bank default guarantee (Art. 5(3)(f) BankV/BO), under which a supervised bank guarantees redemption.[27] By contrast, yield-bearing or portfolio-linked stablecoin designs may fall under the Collective Investment Schemes Act (CISA) or be treated as securities. While Switzerland's DLT Act of 2020 created a legal basis for ledger-based securities and DLT trading venues, it does not establish a separate regulatory category for stablecoins.

In July 2024, FINMA issued Guidance 06/2024, clarifying that AML/KYC laws generally apply fully to stablecoin issuers and intermediaries, and setting minimum requirements for bank default guarantees used by Swiss non-bank issuers. In September 2025, Guidance 03/2025 clarified that crypto-based assets held for clients are treated as custody assets (not fiduciary

[27] Such a default-guarantee arrangement was used, for example, by Centi Franc (CCHF).

transactions) and must continue to be disclosed transparently in the notes to banks' annual financial statements.

On 22 October 2025, the Federal Council launched a consultation on amendments to the Financial Institutions Act (FinIA) that would create dedicated license categories for "payment instrument institutions" (including Swiss-stablecoin issuers) and "crypto-institutions", moving Switzerland closer toward a formal stablecoin regime (SIF, 2025). The process, running until 6 February 2026, reflects a policy shift away from the current bank-provided default-guarantee workaround toward an explicit supervisory framework for stablecoin issuance. Notably, the consultation also contemplates a mechanism to pass through negative interest rates to holders while preserving par redemption, by allowing the issuer to reduce the amount of tokens in circulation (for example, via a pro rata reduction in token balances), so that each token's redemption claim remains at par (EFD, 2025).

Recent analyses of Swiss stablecoin regulation by Eggen (2025) and Eggen and Sillaber (2025) highlight ongoing challenges in legal classification, risks to monetary sovereignty, and regulatory gaps, while contrasting Switzerland's flexible, case-by-case approach with the EU's more standardized MiCA framework. As of late 2025, CHF-pegged public stablecoins remain niche, with an aggregate market capitalization well below $100 million.

A.5 Other Jurisdictions and Global Coordination

United Kingdom. The United Kingdom's Financial Services and Markets Act 2023 establishes a two-pillar framework: the Bank of England oversees systemic stablecoin payment systems and related providers, while the Financial Conduct Authority (FCA) and the Payment Systems Regulator (PSR) regulate issuer and custody arrangements. The regime is now progressing through consultations (FCA, 2025; BoE, 2025a). A particularly notable feature of the emerging framework is the requirement that systemic stablecoins would be backed by at least 40% unremunerated central bank deposits at the BoE, with the remaining up to 60% permitted in short-term, sterling-denominated UK government debt. The BoE is also considering the introduction of liquidity backstop arrangements for systemic issuers. In addition, the Bank has developed and consulted on transitional holding limits for systemic stablecoins as a tool to mitigate bank disintermediation risks and abrupt deposit outflows from commercial banks during the early phase of digital-money adoption (BoE, 2025b).

Japan, Singapore, Hong Kong, Canada. Japan confines issuance of digital-money-type stablecoins to licensed banks, fund transfer service providers, and trust banks under the amended Payment Services Act, with requirements centered on par-value redemption and robust safeguarding of reserves. Singapore has finalized a single-currency stablecoin regime covering par

redemption, reserve composition and custody, and independent audits, and Hong Kong has enacted a licensing ordinance for fiat-referenced issuers that entered into force on August 1, 2025. Canada has finalized capital and liquidity guidance for federally regulated banks and insurers on their exposures to crypto-assets, including stablecoins, effective in fiscal Q1 2026; in parallel, Canada's proposed Stablecoins Act framework is still being developed and will be operationalized through forthcoming regulations.

International coordination. At the international level, the FSB and CPMI-IOSCO anchor the 'same activity, same risk, same rules' approach. Their Principles for Financial Market Infrastructures (PFMI) guidance applies to systemically important stablecoin arrangements, and IOSCO has finalized complementary recommendations for crypto-asset markets and decentralized finance, with implementation reviews underway. The Basel Committee on Banking Supervision (BCBS) has finalized its crypto-asset prudential standard (SCO60) and related public disclosure framework, which became effective in the Basel Framework on January 1, 2026, as jurisdictions proceed with domestic implementation.

References

Abadi, J. and Brunnermeier, M. (2024). Token-based platform governance. *Journal of Financial Economics*, **162**.

Aghion, P., Bolton, P. and Dewatripont, M. (2000). Contagious bank failures in a free banking system. *European Economic Review*, **44** (4), 713–718.

Ahmed, R. and Aldasoro, I. (2025). *Stablecoins and safe asset prices*. Working Paper 1270, BIS.

—, — and Duley, C. (2025a). *Public information and stablecoin runs*. Working Paper 1164, Bank for International Settlements.

—, Clouse, J. A., Natalucci, F., Rebucci, A. and Sun, G. (2025b). *Stablecoins: A revolutionary payment technology with financial risks*. Working Paper 34475, NBER.

Aldasoro, I., Cornelli, G., Minesso, M. F., Gambacorta, L. and Habib, M. M. (2024). *Stablecoins, money market funds and monetary policy*. Working Paper 1219, Bank for International Settlements.

—, Frost, J., Lim, S. H., Perez-Cruz, F. and Shin, H. S. (2025). *An approach to anti-money laundering compliance for cryptoassets*. BIS Bulletin 111, Bank for International Settlements.

Altermatt, L., van Buggenum, H. and Voellmy, L. (2024). Systemic bank runs without aggregate risk: How a misallocation of liquidity may trigger a solvency crisis. *Journal of Financial Economics*, **161**.

Andolfatto, D. (2025). Tether and the fragility of unregulated dollar substitutes. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

Auer, R., Lewrick, U. and Paulick, J. (2025). *DeFiying gravity? An empirical analysis of cross-border Bitcoin, Ether and stablecoin flows*. BIS Working Papers 1265, Bank for International Settlements.

Bains, P., Ismail, A., Melo, F. and Sugimoto, N. (2022). *Regulating the crypto ecosystem: The case of stablecoins and arrangements*. Fintech Note 2022/008, International Monetary Fund.

Bartylla, B. (2025). How the GENIUS Act regulates foreign issuers—and how it compares to Europe and the UK. *Yale Journal on Regulation*.

Beam, D., Bisanz, M., Casteluccio, J., Irwin, D., Olmem, A., Resnikoff, B., Taft, J. and Truesdale, K. (2025). Treasury takes initial steps towards GENIUS Act rulemaking. Mayer Brown, `https://www.mayerbrown.com/en/insights/publications/2025/10/treasury-takes-initial-steps-towards-genius-act-rulemaking`.

Berentsen, A. (2006). On the private provision of fiat currency. *European Economic Review*, **50** (7), 1683–1698.

Bertsch, C. (2023). *Stablecoins: Adoption and Fragility*. Working Paper Series 423, Sveriges Riksbank.

Bidder, R. (2025). Singleness of money: Towards a nuanced debate. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

Bindseil, U. (2025). Regulatory responses to the financial stability implications of stablecoins. Available at SSRN. `https://dx.doi.org/10.2139/ssrn.5710762`.

— and Cipollone, P. (2025). Central bank electronic cash and monetary sovereignty. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

BIS (2025). The next-generation monetary and financial system (Chapter III). In: Annual Economic Report 2025. Bank for International Settlements.

BoE (2025a). *Proposed regulatory regime for sterling-denominated systemic stablecoins*. Consultation Paper, 10 November 2025, Bank of England.

— (2025b). *The role of holding limits for sterling-denominated systemic stablecoins and a potential digital pound*. Financial Stability Paper, 10 November 2025, Bank of England.

Bofinger, P. (2025). *Stablecoins and the future of money: Economic principles and policy implications*. Study 100, IMK Macroeconomic Policy Institute.

Boss, T. (2025). Reserve standards vs. issuer restrictions: The GENIUS Act's comparison to global stablecoin norms. *Georgetown Journal of International Law*, `https://www.law.georgetown.edu/international-law-journal/blog/geniusact/?trk=public_post_comment-text`.

Briola, A., Vidal-Tomás, D., Wang, Y. and Aste, T. (2023). Anatomy of a stablecoin's failure: The Terra-Luna case. *Finance Research Letters*, **51**.

Bruce, K. J., Odinet, C. K. and Tosato, A. (2022). The private law of stablecoins. *Arizona State Law Journal*, **54**, 1073–1160.

Brunnermeier, M., James, H. and Landau, J.-P. (2021). *The digitalization of money*. BIS Working Papers 941, Bank for International Settlements.

Bryant, J. (1980). A model of reserves, bank runs, and deposit insurance. *Journal of Banking & Finance*, **4** (4), 335–344.

Cao, Y., Dai, M., Kou, S., Li, L. and Yang, C. (2025). Designing stablecoins. *Mathematical Finance*, **35** (1), 263–294.

Cavalcanti, R., Erosa, A. and Temzelides, T. (1999). Private money and reserve management in a random-matching model. *Journal of Political Economy*, **107** (5), 929–945.

—, — and — (2005). Liquidity, money creation and destruction, and the returns to banking. *International Economic Review*, **46** (2), 675–706.

— and Wallace, N. (1999a). Inside and outside money as alternative media of exchange. *Journal of Money, Credit and Banking*, **31** (3), 443–457.

— and — (1999b). A model of private bank-note issue. *Review of Economic Dynamics*, **2** (1), 104–136.

Cecchetti, S. G. and Schoenholtz, K. L. (2025). Are stablecoins really the future of payments? In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

Chainalysis (2025). The 2025 crypto crime report. `https://go.chainalysis.com/2025-Crypto-Crime-Report.html`.

Chen, W. and Phelan, G. (2025). Digital currency and banking-sector stability. *Journal of Financial Stability*, **78**, 101414.

Chiu, J. and Monnet, C. (2024). *Public and Private Money Creation for Distributed Ledgers: Stablecoins, Tokenized Deposits, or Central Bank Digital Currencies?* Staff Working Paper 2024-35, Bank of Canada.

— and — (2025). On the programmability and uniformity of digital currencies. *American*

Economic Review: Insights, forthcoming.

Circle (2024). MiCA Redemption Policy. Last updated: July 2, 2024. https://www.circle.com/legal/mica-redemption-policy.

Cong, L. W., Li, Y. and Wang, N. (2022). Token-based platform finance. *Journal of Financial Economics*, **144** (3), 972–991.

Constâncio, V. (2025). The stablecoins triumph and the CBDCs demise (Part 2). Vitor Constancio's MacroViews. https://vconstancio.substack.com/p/the-stablecoins-triumph-and-the-cbdcs-3c3.

Cornelli, G., Doerr, S., Frost, J. and Gambacorta, L. (2023). *Crypto shocks and retail losses*. BIS Bulletin 69, Bank for International Settlements.

CSBS (2025). Re: GENIUS Act implementation. Conference of State Bank Supervisors. November 4. https://www.csbs.org/csbs-genius-act-implementation-comment-letter.

D'Avernas, A., Maurin, V. and Vandeweyer, Q. (2022). *Can Stablecoins be Stable?* Working Paper 2022-131, Becker Friedman Institute.

Diamond, D. W. and Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of Political Economy*, **91** (3), 401–419.

Dionysopoulos, L. and Urquhart, A. (2024). 10 years of stablecoins: Their impact, what we know, and future research directions. *Economics Letters*, **244**.

Duffie, D., Olowookere, O. and Veneris, A. (2025). *A note on privacy and compliance for stablecoins*. Research paper, Stanford GBS.

EBA (2024a). Final report: Draft Regulatory Technical Standards to further specify the liquidity requirements of the reserve of assets under Article 36(4) of Regulation (EU) 2023/1114 . European Banking Authority.

EBA (2024b). Final report: Draft Regulatory Technical Standards to specify the highly liquid financial instruments with minimal market risk, credit risk and concentration risk under Article 38(5) of Regulation (EU) 2023/1114 . European Banking Authority.

EBA (2024c). Final report on guidelines on redemption plans under Articles 47 and 55 of Regulation (EU) 2023/1114. European Banking Authority.

EBA (2024). *Report on tokenised deposits*. EBA/REP/2024/24, European Banking Authority.

EBA (2025a). Opinion of the European Banking Authority on the interplay between Directive EU 2015/2366 (PSD2) and Regulation (EU) 2023/1114 (MiCA) in relation to crypto-asset service providers that transact electronic money tokens. European Banking Authority.

EBA (2025b). The EBA responds to Commission's proposed changes to the technical standards on liquidity requirements of the reserve of assets under MiCA. European Banking Authority. Retrieved from https://www.eba.europa.eu/publications-and-media/press-releases/eba-responds-commissions-proposed-changes-technical-standards-liquidity-requirements-reserve-assets.

ECB (2024). Policy on access by non-bank payment service providers to central bank-operated payment systems and to central bank accounts. European Central Bank. Eurosystem. July 2024. https://www.ecb.europa.eu/paym/target/target-professional-use-documents-links/tips/shared/pdf/Eurosys_pol_on_access_to_central_bank_operated_payment_systems_by_NBPSPs.pdf.

EFD (2025). Änderung des Finanzinstitutsgesetzes (Zahlungsmittelinstitute und Krypto-Institute). Eidgenössisches Finanzdepartement. Erläuternder Bericht zur Eröffnung des Vernehmlassungsverfahrens. https://cms.news.admin.ch/dam/de/der-schweizerische-bundesrat/bqoaKNhbpGcb/finig-erlaeuternder-bericht-de.pdf.

Eggen, M. (2025). Schweizer Kryptoregulierung: Gesetzgeberischer Handlungsbedarf im Zivil- und Aufsichtsrecht. *sui generis*, pp. 55–65.

— and Sillaber, C. (2025). Schweizer Regulierung von Stablecoins im Vergleich zur MiCAR. *Recht der Zahlungsdienste*, **2**, 76–83.

Eichengreen, B., Nguyen, M. and Viswanath-Natraj, G. (2025). Stablecoin devaluation risk. *European Journal of Finance*, **31**, 1469–1496.

Engineer, M. (1989). Bank runs and the suspension of deposit convertibility. *Journal of Monetary Economics*, **24** (3), 443–454.

ESMA (2024a). Consultation paper on the draft guidelines on reverse solicitation under the Markets in Crypto Assets Regulation (MiCA). European Securities and Markets Authority. ESMA35-1872330276-1619.

ESMA (2024b). ESMA statement on MiCA transitional measures. European Securities and Markets Authority. Retrieved from https://www.esma.europa.eu/document/statement-mica-transitional-measures.

ESMA (2025a). Guidelines on situations in which a third-country firm is deemed to solicit clients established or situated in the EU and the supervision practices to detect and prevent circumvention of the reverse solicitation exemption under the Markets in Crypto Assets Regulation (MiCA). European Securities and Markets Authority. ESMA35-1872330276-2030.

ESMA (2025b). Overview of Level 2 and Level 3 measures related to Regulation (EU) 2023/1114 Markets in Crypto-Assets (MiCA). European Securities and Markets Authority. https://www.esma.europa.eu/sites/default/files/2025-07/ESMA75-113276571-1510_MiCA_Level_2_and_3_table.pdf.

ESRB (2025a). Recommendation of the European Systemic Risk Board of 25 September 2025 on third-country multi-issuer stablecoin schemes. European Systemic Risk Board. ESRB/2025/9. https://www.esrb.europa.eu/pub/pdf/recommendations/esrb.recommendation251020.en.pdf.

ESRB (2025b). Report on stablecoins, crypto-investment products and multi-function groups. European Systemic Risk Board. October 2025. https://www.esrb.europa.eu/pub/pdf/reports/esrb.report202510_cryptoassets.en.pdf?347510c016928b8c2f74825965cd20a9.

EU (2023). Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets. European Union. Retrieved from https://eur-lex.europa.eu/eli/reg/2023/1114/oj.

FCA (2025). *Stablecoin Issuance and Cryptoasset Custody*. Consultation Paper, CP25/14, Financial Conduct Authority.

Fed (2025). Federal Reserve Board requests public input on "payment account," which eligible financial institutions could use for the limited purpose of clearing and settling their pay-

ments. Board of Governors of the Federal Reserve System. https://www.federalreserve.gov/newsevents/pressreleases/bcreg20251219a.htm.

Fernández-Villaverde, J. and Sanches, D. (2019). Can currency competition work? *Journal of Monetary Economics*, **106**.

Frost, J., Rochet, J.-C., Shin, H. S. and Verdier, M. (2025). *Competing digital monies*. WP 25-1644, TSE.

Fu, S., Wang, Q., Yu, J. and Chen, S. (2024). Leveraging ponzi-like designs in stablecoins. *International Journal of Network Management*, **34** (4).

Garita, M., Bregni, C. and Asturias, R. (2024). Stablecoins and inflation in Latin America: the case of Argentina. *Journal of Strategy and Management*.

Garratt, R. (2025). Banking on blockchain. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

— and Shin, H. S. (2023). *Stablecoins versus tokenised deposits: implications for the singleness of money*. BIS Bulletin 73, Bank for International Settlements.

Gersbach, H. (1998). Liquidity creation, efficiency, and free banking. *Journal of Financial Intermediation*, **7** (1), 91–118.

—, van Buggenum, H. and Zelzner, S. (2025). Stablecoins: How research can inform policy. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

— and Zelzner, S. (2025). Contagious currency competition? Mimeo.

Goldstein, I., Gupta, D. and Sverchkov, R. (2024). Utility tokens as a commitment to competition. *Journal of Finance*, **79** (6), 4197–4246.

— and Pauzner, A. (2005). Demand-deposit contracts and the probability of bank runs. *Journal of Finance*, **60** (3), 1293–1327.

Gorton, G. and Zhang, J. (2021). *Taming wildcat stablecoins*. Law Review 90, University of Chicago.

Graichen, D. (2025). Understanding the primary and secondary markets in ETFs. WisdomTree, https://www.wisdomtree.com/investments/blog/2025/06/24/understanding-the-primary-and-secondary-markets-in-etfs#.

Gudgeon, L., Perez, D., Harz, D., Livshits, B. and Gervais, A. (2020). The decentralized financial crisis. In *2020 Crypto Valley Conference on Blockchain Technology (CVCBT)*, pp. 1–15.

Guennewig, M. (2024). Currency competition with firms. Working Paper, Available at SSRN: https://ssrn.com/abstract=3940408.

Hansen, P. and Bauer, H. (2024). *MiCA's significance regime for stablecoins - A sledgehammer to crack a nut?* Working paper, SSRN, http://dx.doi.org/10.2139/ssrn.4699043.

ICBA (2025). Re: GENIUS Act implementation comments (RIN 1505-ZA10). Independent Community Bankers of America. November 4. https://www.icba.org/documents/d/asset-library-45247/letter-to-treasury-department-regarding-genius-act-implementation.

IMF (2025). *Understanding Stablecoins*. Departmental Paper, International Monetary Fund, https://doi.org/10.5089/9798229024075.087.

Jacklin, C. (1987). Demand deposits, trading restrictions, and risk sharing. In E. C. Prescott and N. Wallace (eds.), *Contractual arrangements for intertemporal trade*, *2*, Minneapolis, MN: University of Minnesota Press, pp. 26–47.

Klages-Mundt, A. and Minca, A. (2021). (In)stability for the Blockchain: Deleveraging spirals and stablecoin attacks. *Cryptoeconomic Systems*, **1** (2), https://cryptoeconomicsystems.pubpub.org/pub/klages-mundt-blockchain-instability.

Kosse, A., Glowka, M., Mattei, I. and Rice, T. (2023). *Will the real stablecoin please stand up?* BIS Working Papers 141, Bank for International Settlements.

Krause, D. (2025). *Algorithmic Stablecoins: Mechanisms, Risks, and Lessons from the Fall of TerraUSD*. Working Paper, SSRN.

Kurovskiy, G. and Rostova, N. (2023). *How Algorithmic Stablecoins Fail*. Working Paper (draft), EPFL and Swiss Finance Institute.

Lee, S., Lee, J. and Lee, Y. (2023). Dissecting the Terra-LUNA crash: Evidence from the spillover effect and information flow. *Finance Research Letters*, **53**.

Lexify (2024). The future of staking in the EU: ESMA answers. July 24. `https://lexify.io/the-future-of-staking-in-the-eu-esma-answers/`.

Li, Y. and Mayer, S. (2025). *Financial Intermediation with fragile Seigniorage: A Dynamic Model of stablecoin Issuers*. Working Paper, Available at SSRN.

Liang, N. (2025). Stablecoins: Issues for regulators as they implement GENIUS Act. Brookings. `https://www.brookings.edu/articles/stablecoins-issues-for-regulators-as-they-implement-genius-act/`.

Lucas, R. (1978). Asset prices in an exchange economy. *Econometrica*, **46**, 1429–1445.

Lyons, R. K. and Viswanath-Natraj, G. (2023). What keeps stablecoins stable? *Journal of International Money and Finance*, **131**.

Ma, Y., Zeng, Y. and Zhang, A. L. (2025). *Stablecoin runs and the centralization of arbitrage*. Working Paper 33882, NBER.

Martin, A. and Schreft, S. L. (2006). Currency competition: A partial vindication of Hayek. *Journal of Monetary Economics*, **53** (8), 2085–2111.

Mayer, S. (2022). Token-based platforms and speculators. Working Paper, Available at SSRN: `https://ssrn.com/abstract=3471977`.

McLellan, L. and Bindseil, U. (2025). Banning stablecoin remuneration will not protect banks' deposits. OMFIF. `https://www.omfif.org/2025/12/banning-stablecoin-remuneration-will-not-protect-banks-deposits/`.

Ocampo, D. G. (2025). *Stablecoin-related yields: Some regulatory approaches*. FIS Brief 27, Financial Stability Institute, Bank for International Settlements.

Oefele, N., Baur, D. G. and Smales, L. A. (2024a). Are stablecoins the money market mutual funds of the future? *Journal of Empirical Finance*, **79**.

—, —, — and Viswanath-Natraj, G. (2024b). *Decoding DAI: Exploring Collateral Evolution and Price Dynamics*. Working paper, SSRN.

Oordt, M. R. (2025). Transforming the digital euro proposal from a threat into an opportunity for privacy. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

Ozdenoren, E., Tian, Y. and Yuan, K. (2025). *Platform Money*. DP 20436, CEPR.

Portes, R. (2025). Multi-issuer stablecoins: A threat to financial stability. VoxEU Column. https://cepr.org/voxeu/columns/multi-issuer-stablecoins-threat-financial-stability.

Qin, K., Ernstberger, J., Zhou, L., Jovanovic, P. and Gervais, A. (2023). Mitigating decentralized finance liquidations with reversible call options. Cryptology ePrint Archive, Paper 2023/254.

—, Zhou, L., Gamito, P., Jovanovic, P. and Gervais, A. (2021). An empirical study of defi liquidations: incentives, risks, and instabilities. In *Proceedings of the 21st ACM Internet Measurement Conference*, IMC '21, ACM, pp. 336–350.

Reuter, M. (2025). *Decrypting Crypto: How to Estimate International Stablecoin Flows*. IMF Working Paper, International Monetary Fund.

Rogoff, K. and You, Y. (2023). Redeemable platform currencies. *Review of Economic Studies*, **90** (2), 975–1008.

SIF (2025). Federal Council moves forward with stablecoins and crypto: consultation launched. State Secretariat for International Finance and Swiss Federal Council. https://www.news.admin.ch/en/newnsb/x4TMWQ1SWofNoFx7XyHhY.

Storbeck, O. (2025). Stablecoins could trigger taxpayer bailouts, warns Nobel economics laureate. *Financial Times*, interview/article reporting remarks by Jean Tirole.

Uhlig, H. (2010). A model of a systemic bank run. *Journal of Monetary Economics*, **57** (1), 78–96.

— (2022). *A Luna-tic Stablecoin Crash*. Working Paper 2022-95, University of Chicago, Becker Friedman Institute for Economics.

— (2025). Stablecoins, central bank digital currencies, and policy. In D. Niepelt (ed.), *Frontiers of Digital Finance*, CEPR Press.

U.S. Congress (2025). Guiding and establishing national innovation for U.S. Stablecoins Act. Public Law 119-27; 119th Congress; July 18, 2025. Retrieved from https://www.congress.gov/119/plaws/publ27/PLAW-119publ27.pdf.

U.S. Treasury (2025a). GENIUS Act implementation: A proposed rule by the Treasury Department on 09/19/2025. U.S. Department of the Treasury. Advance notice of proposed rulemaking. Federal Register 9 (180). https://www.federalregister.gov/documents/2025/09/19/2025-18226/genius-act-implementation.

U.S. Treasury (2025b). Treasury seeks public comment on implementation of the GENIUS Act. U.S. Department of the Treasury, https://home.treasury.gov/news/press-releases/sb0254.

van Buggenum, H., Gersbach, H. and Zelzner, S. (2023). *Contagious Stablecoins?* Discussion Paper 18521, CEPR.

Voellmy, L. (2021). Preventing runs with fees and gates. *Journal of Banking & Finance*, **125**.

Wang, J. J. (2025). Banks in the age of stablecoins: Some possible implications for deposits, credit, and financial intermediation. FEDS Notes. https://www.federalreserve.gov/econres/notes/feds-notes/banks-in-the-age-of-stablecoins-implications-for-deposits-credit-and-financial-intermediation-20251217.html.

White, L. (2014). Free banking in history and theory. In H. W. White, V. Vanberg and E. A.

Kohler (eds.), *Renewing the search for a monetary constitution, 9*, Washington, DC: Cato Institute, pp. 187–211.

Williamson, S. D. (1999). Private money. *Journal of Money, Credit and Banking*, **31** (3), 469–491.

Zhao, W., Li, H. and Yuan, Y. (2021). Understand volatility of algorithmic stablecoin: Modeling, verification and empirical analysis. In M. Bernhard, A. Bracciali, L. Gudgeon, T. Haines, A. Klages-Mundt, S. Matsuo, D. Perez, M. Sala and S. Werner (eds.), *Financial Cryptography and Data Security. FC 2021 International Workshops*, Springer Berlin Heidelberg, pp. 97–108.

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