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# The Financial Architecture of Stablecoins: A Primer

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## Summary

This SAFE White Paper presents a structured economic framework for assessing asset-backed stablecoins in their capacity as privately issued, fiscally anchored monetary instruments. Specifically, we evaluate the implications of stablecoins for financial intermediation, sovereign debt markets, and monetary transmission while devoting particular attention to differences between the United States and European Union. To this end, we characterize the basic economics of stablecoins by comparing their balance-sheet structure to narrow banks, money market funds, commercial banks, and central banks, highlighting that issuers engage in minimal maturity transformation and hold predominantly high-quality liquid assets against par-redeemable digital liabilities. Furthermore, we examine the regulatory design of the US GENIUS Act and the EU's MiCAR framework, showing how differences in reserve composition and supervisory architecture shape incentives for regulatory arbitrage and influence whether stablecoin growth reallocates existing sovereign debt holdings or generates net additional demand. For the euro area, the central question is whether digital liquidity remains anchored in domestic sovereign assets or shifts toward foreign-currency stablecoins, with implications for monetary sovereignty and financial stability. We conclude that Europe requires an active response: advancing a digital euro, strengthening global supervisory coordination, and reinforcing cross-border AML enforcement in public blockchain environments to safeguard monetary sovereignty and financial stability.

## Executive Summary

### Key Takeaways:

- Stablecoins are not merely a technological innovation in payments: they are a new class of money-like financial instruments, influencing the global demand for safe assets.
- Their macro-financial impact depends less on blockchain technology and more on balance-sheet composition, regulatory design, and currency denomination.
- Stablecoins do not create new net financial assets: they reallocate funding between banks, sovereign debt markets, and digital settlement instruments.
- Regulatory choices in the United States and European Union lead to materially different outcomes for sovereign debt demand, bank intermediation, and monetary transmission.
- For the euro area, the strategic issue is whether digital liquidity will be anchored in euro-denominated instruments or increasingly tied to dollar-backed stablecoins.

Stablecoins have grown rapidly and now settle transaction volumes that rival or exceed major card networks. Policymakers thus face a fundamental question: are stablecoins simply a more efficient payment technology, or do they alter the architecture of the financial system? While this debate is often framed in technological terms, we take a different approach, examining underlying economics, including how stablecoins are reshaping funding flows, sovereign debt demand, and the transmission of monetary policy.

Because stablecoins are typically backed by short-term government securities and bank deposits, their expansion directly affects the structure of public debt markets and bank balance sheets. If widely adopted, they may alter the maturity profile of sovereign debt, intensify rollover risk, and weaken the traditional deposit-based transmission channel of monetary policy. Furthermore, in cross-currency settings, foreign-currency stablecoins may amplify currency substitution and reduce domestic monetary autonomy.

Under the relevant US framework (GENIUS Act), reserves are concentrated in short-term Treasuries and repos, strengthening the link between stablecoin growth and sovereign debt demand. Under the EU's MiCAR framework, reserve requirements embed stablecoins more directly in the banking system, reducing the direct sovereign demand channel but increasing interdependence with bank funding structures.

Whether stablecoins generate net additional demand for government debt depends on how they are funded – namely, through new savings and foreign inflows, or through substitution away from bank deposits and existing sovereign bond holdings.

Stablecoins blur the boundary between the fiscal and monetary domains. They create private seigniorage linked to sovereign debt while operating outside direct central bank control. Associated regulatory design therefore has macroeconomic consequences.

For Europe, the policy choice is strategic. If dollar-denominated stablecoins become dominant, transaction liquidity in Europe will be increasingly backed by US sovereign debt, potentially weakening the euro's role in digital finance and reducing monetary policy traction. An active response – whether through fostering a private euro stablecoin ecosystem, advancing a digital euro, or refining regulatory design – is necessary to safeguard monetary sovereignty and financial stability while also enabling innovation.

### **Policy Recommendations**

To address these structural implications, we propose three strategic priorities for Europe:

#### **R1. Strategically develop the digital euro (CBDC).**

A public digital settlement asset would preserve euro-denominated liquidity in digital markets and limit external monetary spillovers from dollar-based stablecoins. The objective is not to crowd out private innovation, but to ensure that the core monetary anchor of the euro area remains under public control.

#### **R2. Establish effective global alignment of stablecoin supervision.**

Issuer-based regulation is insufficient in a world of multi-issuance structures, offshore domiciles, and token fungibility. Supervisory cooperation, consolidated oversight, and credible cross-border enforcement mechanisms are necessary to limit regulatory arbitrage and protect financial stability.

#### **R3. Strengthen cross-border AML enforcement in public-blockchain environments.**

While AML obligations are embedded in current frameworks, enforcement gaps persist on permissionless blockchains and across jurisdictions. Effective safeguards require coordinated supervision, clarity of compliance responsibilities, and enforceable obligations for issuers and intermediaries serving domestic users.

## I. The Basic Economics of Stablecoins

Stablecoins may be among the most consequential financial innovations of the past decade. They have the potential to alter the basic architecture of the financial system, significantly transforming not just the financial services industry, but also how firms and households hold, move, and store value. As stablecoins are a new class of money-like financial instrument, they can be expected to influence the global demand for safe assets. Furthermore, stablecoins are issued by private institutions, meaning they challenge the fiat-money monopoly of central banks and their plans to issue central bank digital currencies (CBDCs).

Today, stablecoins serve as a bridge between the crypto ecosystem and traditional financial markets (see info box on USDT and USDC, the two most important stablecoin variants today). Their rapid growth has already triggered major regulatory initiatives in both the EU and US, most notably the Markets in Crypto-Assets Regulation (MiCAR, EU 2023) and the Guiding and Establishing National Innovation for US Stablecoins Act (GENIUS Act, US 2025).

Both of these legislative frameworks require stablecoins to be backed by high-quality liquid assets (HQLA). We thus focus on such “asset-backed stablecoins” – that is, digital tokens issued on a distributed ledger that pledge to maintain one-to-one convertibility with a sovereign currency thanks to HQLA backing.<sup>1</sup> While stablecoins could, in principle, be designated in any currency, the global market is dominated by the dollar-denominated US Digital Token (USDT) issued by Tether and the US Digital Currency (USDC) issued by Circle, which currently account for approximately 63% and 26% of the global stablecoin market, respectively.<sup>2</sup>

This white paper concentrates on the core economic characteristics that define these instruments and later discusses the channels through which they may affect the broader financial system, including monetary policy and fiscal capacity.

Understanding the functional differences between stablecoin issuers and traditional banks is central to evaluating their economic role. Banks issue deposits backed by diversified assets and engage in maturity transformation, while stablecoin issuers are typically required to hold mostly short-term government securities or bank deposits, without the ability to create money through lending. Tokenized deposits remain within the ambit of the banking regulatory perimeter and circulate among users globally on permissioned blockchains, unlike stablecoins, which operate in open, interoperable blockchain environments. Thus, stablecoins are an innovation based on a new concept of money and a new technology of tokenization using blockchains, i.e. distributed ledger technology (DLT).

Figure 1 depicts the stylized balance sheets of the key financial institutions involved in the issuance, intermediation, and settlement of money-like instruments, directly comparing the balance sheets of

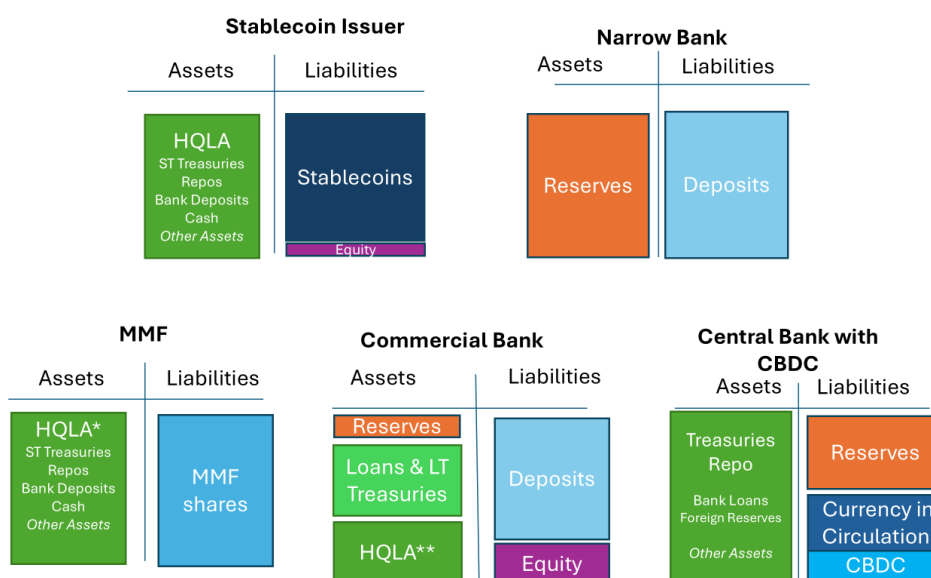
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<sup>1</sup> In the language of MiCAR, stablecoins are “e-money tokens”; the academic literature and popular press also use the term “fiat-backed stablecoins.”

<sup>2</sup> Source: ECB FSR 2025

stablecoin issuers with those of money market funds, commercial banks, and the central bank. The figure shows that asset-backed stablecoins closely resemble “narrow banks”:<sup>3</sup> Both types of institutions hold a restricted pool of high-quality liquid assets (HQLAs) – short-term Treasuries, repos, bank deposits, and cash – against their monetary liabilities. This stands in contrast to commercial banks, which transform deposits into loans and long-term securities. By juxtaposing these balance sheets, the figure clarifies how stablecoins fit within the broader monetary and financial architecture.

**Figure 1. Key financial institutions and their stylized balance sheets**



Source: Authors' illustration.

**Asset-backed stablecoins.** The first balance sheet (top left of Figure 1) depicts a stylized stablecoin issuer whose assets consist of HQLA: namely, short-term government securities (“ST Treasuries”), repurchase agreements backed by such securities (“Repos”), bank deposits, and cash. On the liability side are the outstanding stablecoin tokens, which promise redemption at par in the reference currency. Economically, the holders of these tokens have a claim to a pool of liquid, low-risk assets denominated in a sovereign currency, rather than on central bank reserves (as would be the case for a narrow bank) or on credit-creating loan assets (as in the case of a commercial bank). A stablecoin issuer does not extend credit to firms or households, nor does it engage in the substantial transformation of maturities. Owing to their high degree of value stability, stablecoin tokens are well suited for use as a payment instrument on digital platforms. The stablecoin issuer’s balance sheet also includes equity, defined as the residual claim equal to the difference between the value of assets and

<sup>3</sup> Paraphrasing John Cochrane (2014): “It is a bank whose deposits are fully backed by interest-paying reserves or other government-guaranteed safe assets, so that the bank cannot fail and cannot cause a run.” *In: Martin Neil Baily & John B. Taylor (eds.), Across the Great Divide: New Perspectives on the Financial Crisis*, Hoover Institution Press.

liabilities.<sup>4</sup> When asset values exceed outstanding liabilities, the issuer holds positive equity; when liabilities exceed assets, equity is negative. For stablecoin issuers, equity primarily reflects retained earnings derived from the yield differential between returns on reserve assets and the operating costs associated with issuing, redeeming, and safeguarding stablecoins.

A **narrow bank** holds only central bank reserves as assets or government-guaranteed safe assets, so that a bank's liabilities are as secure as money itself. In this design, the deposit-taker does not hold risky loans or engage in maturity transformation, making it immune to runs because it cannot suffer losses that impair its ability to redeem deposits at par.<sup>5</sup>

A **money market fund (MMF)** has a balance sheet similar to that of the Treasury-backed stablecoin: assets are again T-bills and repos, funded by MMF shares on the liability side. The crucial differences are legal form and purpose. MMF shares are treated and regulated as investment products. They are typically remunerated at market rates, so they are held as short-term yield-bearing assets, not as day-to-day means of payment. Transfers usually take place within the traditional securities and fund infrastructure rather than in real time on distributed ledgers. In this sense, MMFs are primarily used as cash-management vehicles, whereas stablecoins are designed as payment instruments with a strong par-value expectation.

**The commercial bank** has the richest balance sheet of all entities shown. On the asset side, it holds not only reserves and some liquid securities, but also loans and long-term treasuries – illiquid and longer-dated claims on the private and public sector. On the liabilities side, it is funded by deposits and an equity buffer. Commercial banks therefore combine credit creation with substantial maturity transformation. They bear credit and interest-rate risk and are subject to capital and liquidity requirements designed to contain those risks.

**Central bank digital currency (CBDC)** is considered an alternative to private stablecoins, particularly in Europe. A CBDC would be a direct liability of the central bank, backed by its balance sheet in the same way as reserves and banknotes. It would therefore represent the purest form of public money in digital form, with no portfolio of treasuries or bank deposits sitting between users and the central bank. Compared with stablecoins, which are private tokens backed by sovereign debt and bank claims, a CBDC would remove both asset-side risk and intermediary risk: users would hold central bank money itself, not a private, fiscally backed surrogate. In that sense, CBDC belongs firmly to the monetary side of the system, whereas stablecoins remain a largely fiscally anchored, privately issued complement.

Stablecoin usage today is dominated by crypto trading, where delivery-versus-payment (DVP) settlement reduces counterparty and delivery risk. Around 80% of trades on centralized crypto exchanges involve stablecoins, underscoring their central role in the crypto ecosystem. The use of stablecoins as a domestic means of exchange remains insignificant. Similarly, domestic payment

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<sup>4</sup> Note that there is a layer of equity on the balance sheet of the stablecoin issuer. To illustrate the first and simplest case, if all liabilities consist of, say, 100 stablecoins, each valued at 1 USD and carrying an interest rate of zero, then the asset side consists of a nominal value of 100 USD Treasuries, plus the present value of the coupons attached to the nominal 100 USD Treasuries. To equilibrate the balance sheet, the equivalent of the coupon value has to show up on the right-hand side as equity. Clearly, at times of sudden interest rate changes, the value of equity can vary, and may even become negative.

<sup>5</sup> While John Cochrane popularized and formalized the modern narrow bank concept, it was originally elaborated by Irving Fischer (1936). *"100% Money"* New York: Adelphi Company.

systems in the US, EU, India, Brazil, and China already provide near-instant, low-cost payments. Stablecoins become more attractive in cross-border contexts, where traditional correspondent banking networks may introduce delays and high fees. Users may also value blockchain programmability, continuous availability, and potential yield.<sup>6</sup>

Another important dimension concerns the blockchain infrastructure underlying stablecoins. Permissioned systems<sup>7</sup> support compliance and risk management, whereas public blockchains allow pseudonymity, global participation, and greater exposure to illicit finance. These structural differences shape blockchains' economic functions and the associated justifications for regulatory oversight. The question of whether stablecoins are crypto assets reflects their hybrid nature: while they are technologically rooted in blockchain systems, they are designed economically to maintain price stability rather than facilitate speculation.

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<sup>6</sup> Cecchetti and Schoenholtz (2025) argue that while tokenization may improve settlement efficiency and reshape payment systems, the core functions of financial intermediation and regulatory oversight remain essential.

<sup>7</sup> Public (permissionless) blockchains allow open access and decentralized validation under protocol-based governance. Permissioned blockchains restrict participation to authorized entities and rely on institutional governance with embedded identity controls. Most major stablecoins operate on public blockchains (including USDT and USDC) while banking applications such as tokenized deposits typically use permissioned systems.

### Info Box. The Stablecoin Duopoly: Tether and Circle

The total market capitalization of stable coins has reached \$280 billion and dollar-denominated stablecoins represent about 99% of the market. The two largest issuers are Tether (63%) and Circle (26%). By contrast, euro-denominated stablecoins remain marginal, with total issuance of around €395 million.<sup>1</sup>

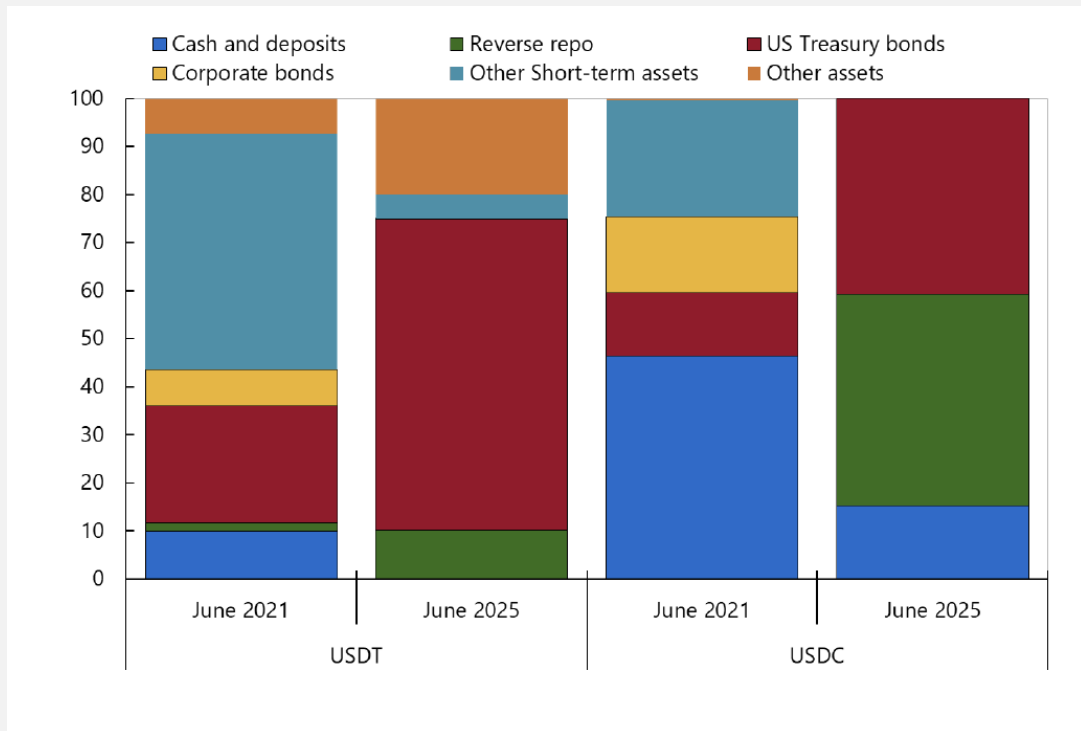
While Tether and Circle both issue dollar-denominated asset-backed stablecoins, USDT and USDC, their business models appear to diverge in crucial respects. Circle markets itself as “the world’s largest regulated stablecoin powering global finance.” Tether, on the other hand, has a less transparent model and operates outside the regulatory purview of the United States and European Union.

Tether	Circle
<ul style="list-style-type: none"><li>● Founded in 2014.</li><li>● Legally domiciled in El Salvador since January 2025.</li><li>● BDO Italia has periodically provided financial attestations for Tether. Attestations confirm the existence and valuation of reserve assets consistent with agreed procedures, but they do not constitute full audits of financial statements.</li><li>● Follows a maximal distribution strategy for public blockchains.</li></ul>	<ul style="list-style-type: none"><li>● Founded in 2013.</li><li>● Legally domiciled in Delaware, USA.</li><li>● The portfolio of the Circle Reserve Fund is custodied at the Bank of New York Mellon and is managed by BlackRock.</li><li>● Circle Internet Financial, LLC publishes audited annual consolidated financial statements. Audits are performed by Deloitte &amp; Touche LLP.</li><li>● Follows a curated issuance model for blockchains with higher compliance rules aligned with its compliance and risk-management framework.</li></ul>

USDC and USDT are backed mostly by short-term US Treasuries, reverse repo collateralized with US Treasuries, and bank deposits, as depicted in Figure 2. The snapshot portrayed by the graph is consistent with asset-side rebalancing in line with regulatory requirements. Treasuries and repos make up about 90% of USDC assets and almost 75% of USDT assets (see green and red areas of Figure 2). Tether occasionally reports holdings of Bitcoin and other digital assets under its “Other short-term assets” category (light blue area).

Stablecoins have significantly surpassed Visa and Mastercard in annual transaction volume, reaching over \$30 trillion in 2025 compared to Visa's ~\$15 trillion<sup>1</sup> and Mastercard's ~\$7.8 trillion<sup>1</sup>, driven by rapid crypto adoption, faster settlements, and lower costs, though Visa and Mastercard still handle far more retail users and smaller per-transaction value. Stablecoins act as a dominant settlement layer for global value transfer, while traditional networks focus on card-based consumer payments, highlighting a shift in how digital money moves across borders.

Figure 2. **Asset side of the balance sheet for asset-backed stablecoins**



Source: IMF Report (2024). Primary data: BDO’s Independent Auditors’ Report on the Financial Figures and Reserves Report (Tether), Deloitte’s Independent Accountants’ Report (Circle).

In our view, the two major stablecoin issuers seem to be moving to an equilibrium in which Circle specializes in regulatory compliance while Tether specializes in an offshore operational model with more limited transparency around governance, reserves, and risk management.

### **Stablecoins vis-à-vis credit cards**

Stablecoins have significantly surpassed the traditional card networks Visa and Mastercard in annual gross transaction volumes, reaching over \$30 trillion in 2025 compared to approximately \$15 trillion for VISA and \$7.8 trillion for Mastercard. This growth reflects rapid crypto adoption, near-instant settlements, and lower cross-border transaction costs. However, Visa and Mastercard still handle far more retail users and smaller per-transaction value. Stablecoins act as a dominant settlement layer for global value transfer. A growing number of payment cards already allow users to spend stablecoins while using traditional card networks for merchant acceptance. Economically, this creates a crypto-native funding with legacy payment rails.

## II. Regulatory Frameworks and Global Arbitrage

Stablecoins are primarily used as a means of payment, yet also as a store of value. Thus, their functions are similar to those of fiat money. As stablecoin issuers now perform bank-like functions, they require analogous regulatory oversight. Adopted regulatory frameworks aim to ensure consumer protection, institutional resilience, and market integrity, in addition to preserving monetary sovereignty. The US GENIUS Act and EU's MiCAR each establish comprehensive frameworks governing reserves, licensing, and supervision

Global stablecoin oversight remains fragmented. Many jurisdictions maintain requirements that are either more rigorous or significantly more relaxed than the standards established by MiCAR and the GENIUS Act. This creates incentives for regulatory arbitrage, which can undermine the effectiveness of domestic regulations. Regulatory arbitrage involves doing business in one or more jurisdictions to minimize the overall regulatory burden, aside from potential tax arbitrage. A stablecoin issuer might have its headquarters in a country with minimal regulation and supervision but offer the stablecoin to buyers around the world. This raises concerns about global regulatory arbitrage. Depending on the customer's jurisdiction, the stablecoin issuer may have to comply with additional rules that apply in the customer's country. Discrepancies between regulatory regimes present a challenge to regulators seeking to limit risks associated with foreign stablecoin issuers. Potential systemic risks are a concern alongside risks to firms and households, . The world's largest USD stablecoin issuer, Tether, is domiciled in El Salvador, illustrating how issuers may choose jurisdictions with loose oversight. Given the uneven monitoring of this coin's collateral, USDT buyers may not be in a position at all times to reconvert their stablecoins back to the US dollars at a rate close to 1:1.

The GENIUS Act and MiCAR both seek to restrain regulatory arbitrage. According to the GENIUS Act, which was ratified in July 2025 and will enter into force in January 2027 at the latest, it is unlawful for a digital asset service provider to offer or sell a payment stablecoin to a person in the United States, unless the payment stablecoin is issued by a permitted payment stablecoin issuer (PPSI) (as per 12 U.S. Code § 5902(b)). PPSIs must be US domiciled and are treated as a financial institution under the Bank Secrecy Act. This means they are subject to comprehensive AML/CFT<sup>8</sup> obligations, supervision, and enforcement – thus bringing their regulatory treatment closer to that of banks or bank-like entities.

In the EU, MiCAR regulates asset-backed stablecoins through the legal category of e-money tokens (EMTs), which correspond to digital tokens that seek to maintain a stable value by referencing a single official currency.<sup>9</sup> MiCAR was adopted in May 2023, with the provisions on e-money tokens entering into force in June 2024. Under Article 48 of MiCAR, no person may offer e-money tokens to the public or seek its admission to trading within the Union unless that person is the issuer of the token and authorized as a credit institution or as an electronic money institution. Furthermore, in order to enable

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<sup>8</sup> AML = Anti-Money Laundering; CFT = Countering the Financing of Terrorism. Financial institutions typically address both through a single compliance framework (AML/CLT).

<sup>9</sup> MiCAR also introduces a separate category of asset-referenced tokens (ARTs), which reference baskets of assets rather than a single currency. These instruments are not the focus of this paper.

effective supervision and to eliminate the possibility of evading or circumventing supervision, crypto-asset services may only be provided by legal persons that have a registered office in a Member State in which they carry out substantive business activities, including the provision of crypto-asset services (Recital 74). Hence, in the EU as well, the issuer of e-money tokens needs to be authorized as a credit institution or as an electronic money institution. An electronic money institution (EMI) is a licensed financial entity that issues, distributes, and redeems electronic money and offers payment services like banks, but, unlike banks, must safeguard customer funds separately and are generally prohibited from engaging in lending activities, as stipulated by the [E-Money Directive](#). These provisions of the GENIUS Act and MiCAR resemble each other.

MiCAR and the GENIUS Act both regulate stablecoin issuance through a chartering model that closely resembles bank-style licensing. Despite differences in legal form, both MiCAR and GENIUS converge on a tightly controlled issuer perimeter that favors regulated financial institutions and excludes decentralized and broadly integrated commercial models. Although GENIUS creates a formal pathway for authorizing payment stablecoin issuers, the practical feasibility of obtaining such permits for non-banks in the United States will depend on forthcoming rule implementation and supervisory practice.

Taken together, MiCAR's regime for e-money tokens and the GENIUS Act's framework for payment stablecoins converge on a common regulatory logic: stablecoin issuance is permitted only within a tightly supervised institutional perimeter, anchored in existing banking or e-money licensing regimes, in order to curb regulatory arbitrage and safeguard monetary and financial stability.

Under these frameworks, stablecoins are required to operate under e-money rules, including:

- One-to-one reserve backing, subject to continuous supervisory monitoring
- Strict segregation of customer funds from issuer's own assets
- Regular reporting and independent auditing of reserves
- Prohibition on interest-bearing features or yield for holders

**Regulatory composition of HQLA.** While MiCAR and the GENIUS Act converge on the principle that stablecoins must be fully backed by high-quality liquid assets, they differ markedly in the degree of prescriptiveness applied to reserve composition. Under MiCAR, issuers of e-money tokens are subject to detailed constraints on the quantitative structure of their reserve portfolios. In particular, MiCAR requires that at least 30% of reserve assets be held in deposits with credit institutions, with the remaining share invested in low-risk and highly liquid assets. For tokens classified as "significant," this requirement is substantially tightened, such that at least 60% of reserves must be held as bank deposits.<sup>10</sup> This generates strong interdependence between stablecoin issuers and the banking sector. In stress scenarios, this tighter linkage could become a channel for contagion, as shocks affecting banks may impair stablecoin liquidity, and large-scale stablecoin redemptions could, in turn, transmit stress to banks holding the associated deposits. In contrast, the GENIUS Act does not impose fixed quantitative thresholds but instead defines a narrow set of eligible reserve assets, centered on cash-like instruments (including bank deposits), short-term US Treasuries (with a maximum maturity of 93

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<sup>10</sup> This additional requirement appears in Article 36 of the European Banking Authority's Regulatory Technical Standards, which specify liquidity requirements for reserve assets.

days), and Treasury-backed repos, thereby giving issuers discretion over the composition of their reserves. This approach reduces direct reliance on bank balance sheets but strengthens the linkage between stablecoin issuers and government bond markets, with potential implications for safe-asset demand and fiscal financing conditions. This contrast reflects a broader divergence in regulatory philosophy: MiCAR relies on *ex ante* harmonized quantitative safeguards, whereas the GENIUS Act places greater weight on asset eligibility and supervisory discretion.

**Private seigniorage.** While stablecoins do not pay interest to holders, they do generate reserve income for issuers. Because stablecoins' backing assets typically take the form of high-quality liquid instruments such as short-term government securities, issuers receive the associated yield. This creates a form of private seigniorage, whereby income generated by money-like instruments accrues to private entities rather than to users or the public sector. Under MiCAR and the GENIUS Act, this outcome is a consequence of treating stablecoins as payment instruments rather than savings products. The zero-yield rule forces the reallocation yield from users to issuers while preserving the monetary character of stablecoins and preventing their transformation into investment products.

**Circumventing the zero-interest rule.** The US and EU regulatory designs anchor stablecoins in a payments framework and avoid their classification as securities, which would otherwise apply to financial tokens offering investment-like returns. Under the GENIUS Act and MiCAR, stablecoins may not earn any interest. As a result, holding stablecoins entails an opportunity cost relative to interest-bearing assets, which discourages their use as a store of value. In practice, however, this restriction has limited relevance for the large share of stablecoin activity that is driven by transactional demand – particularly trading and settlement between different crypto-assets – rather than by long-term holding. Moreover, the zero-yield constraint does not prevent users from accessing yield within tokenized financial markets. Stablecoins can be exchanged almost instantaneously for yield-bearing financial tokens, such as tokenized bank deposits or short-term government securities. Because distributed ledger technology enables delivery-versus-payment (DvP) transactions, these exchanges can occur with minimal settlement risk. As a result, users may temporarily hold stablecoins for payment or settlement purposes while allocating their balances to yield-bearing tokenized instruments. Depending on transaction costs and yield differentials, this strategy may result in a small net cost or, in some cases, a modest surplus.

**Offshore providers.** To what extent can a stablecoin issuer located outside the US or EU benefit from regulatory arbitrage across jurisdictions? Recital 75 of MiCAR states that the regulation should *not* affect the possibility for EU persons to receive crypto-asset services from a third-country firm on their own initiative. In such cases, the crypto-asset services are not considered rendered within the EU. Hence, EU residents may receive services from a CASP (crypto asset service provider) located in a foreign country, without the need for the CASP to comply with MiCAR. While the GENIUS Act lacks such a reserve-solicitation clause and generally forbids services from third-country providers, enforcing compliance faces enormous practical challenges, not least given the global, permissionless nature of crypto-asset markets.

**Regulatory arbitrage** may occur either within the bounds of existing legal frameworks or through practices that undermine effective supervision. In some cases, the use of shell entities or complex corporate structures can obscure the identity of the ultimate issuer, complicating supervisory oversight and the assessment of regulatory compliance. Similarly, chains of special purpose vehicles

(SPVs) may be used to fragment responsibilities across jurisdictions, making it difficult for authorities to determine which regulatory regime effectively applies.

**Multi-issuance and perfect fungibility.** Another form of regulatory arbitrage arises through multi-issuance strategies, whereby the same stablecoin issuer offers tokens under different regulatory regimes in multiple jurisdictions. Once in circulation, these tokens are typically indistinguishable in secondary markets, rendering it difficult to associate a specific unit with a particular regulatory framework and to verify whether jurisdiction-specific reserve and collateral requirements are being consistently enforced. Take the example of USDC, issued by Circle. USDC is the second-largest stablecoin globally by market capitalization, yet it does not currently qualify as a “significant” e-money token under MiCAR. This is not because of its global scale, but because only a relatively small share of USDC is issued within the EU under a MiCAR-authorized entity. As a result, the regulatory classification of USDC under MiCAR is determined by the volume of EU-issued e-money tokens rather than by the size or systemic relevance of USDC at the global level. At the same time, USDC is technically and economically fungible: once in circulation, tokens issued under different legal entities and reserve regimes are indistinguishable in secondary markets. This combination of multi-jurisdictional issuance and token-level fungibility illustrates how issuer-based regulation can be partially decoupled from market-wide usage, potentially limiting the effectiveness of jurisdiction-specific prudential thresholds.

A similar problem arises with multiple-issuer stablecoins. Here, the same stablecoin is issued by various issuers, potentially located in different jurisdictions. This allows the participating parties to benefit from the weaker rules in some jurisdictions.

Issues of regulatory arbitrage are most dramatic in public blockchains. At present, the big stablecoin issuers also operate on public blockchains. Such blockchains allow everybody to participate anonymously, bypassing the principle of “know your customer” (KYC), as real names and identities can be hidden. No central authority monitors the blockchain. It is therefore convenient to use stablecoins for illegal transactions in public blockchains. Such blockchains invite all kinds of illicit activity, including money laundering and other forms of criminality.

### III. Policy Implications and Future Scenarios

The macroeconomic consequences of stablecoin adoption depend on three structural features:

1. Reserve composition (Treasury-dominant vs. bank-deposit dominant),
2. Currency denomination (domestic vs. foreign), and
3. Funding source (substitution from deposits vs. new savings or foreign flows).

Stablecoins do not create net financial assets. They repackage existing sovereign or bank liabilities into tokenized settlement balances. Their economic impact, therefore, operates through portfolio reallocation and funding structures rather than through money creation *per se*. The legal and regulatory framework in which stablecoins are embedded play an important role in their impact on financial markets.

In the following, we examine implications of stablecoins for (i) sovereign debt markets, (ii) bank intermediation, (iii) monetary policy transmission, and (iv) the interplay between monetary and fiscal policy.

### **Stablecoin adoption and sovereign debt markets**

What does an economy-wide, global adoption of stablecoins imply for global government bond markets? The answer depends on the regulatory framework in which stablecoin issuers choose to operate. The relevant rule book in the US and the EU differ, as described in the previous section. Let us consider the US GENIUS Act first: It adopts a narrow-banking philosophy, seeking to minimize credit and liquidity risk by requiring that reserves consist almost exclusively of short-term US Treasuries, Treasury repos, cash, and insured deposits. The policy objective is to avoid the maturity transformation and credit exposure inherent to traditional banking, while ensuring immediate par-value redemption.

By contrast, MiCAR integrates stablecoin issuance into the existing European banking and e-money supervisory structure. Fiat-referenced e-money tokens (EMTs) must be issued by regulated credit institutions or e-money institutions, and a substantial portion of their assets must be held as bank deposits. This embeds stablecoins within the banking sector and channels assets into bank balance sheets.

The reserve requirements under GENIUS strongly bias issuers toward holding Treasury bills and other sovereign instruments. Figure 2 shows that 75% to 85% of reserves are allocated in short-term Treasuries or Treasury-backed repos. As a result, any increase in stablecoin supply generates demand for Treasury bills. The open question is whether this demand for Treasuries is a net addition to existing demand, or merely substitutes for shrinking demand elsewhere in the system. The extent of these complementary and substitutional effects remain difficult to determine.<sup>11</sup>

The net-addition question is also relevant under MiCAR rules. Here, EMT assets must include a larger percentage of bank deposits, which banks can allocate at their own discretion to loans, covered bonds, or sovereign securities. Depending on bank portfolio choices, less than a third of reserves may translate into sovereign bond purchases.

### **Substitution mechanics**

Consider a household that chooses to reallocate funds from a bank deposit into stablecoins. The household's bank experiences a reduction in deposits. As a result, the bank may be forced to liquidate assets or replace lost funding. At the same time, the stablecoin issuer invests the proceeds into eligible assets, typically short-term government securities.

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<sup>11</sup> Azzimonti and Quadrini (2025) develop a three-region macro-finance model (US, Rest of the World, and a "Digital Economy") in which stablecoins can be backed either by US dollar reserves (e.g. Treasuries) or by crypto assets. The model features two opposing channels. First, a reserve demand (complementary) channel: when stablecoins are backed by Treasuries, their expansion mechanically increases demand for US sovereign debt. Second, a substitution channel: when stablecoins are backed by non-dollar digital assets, they may substitute for traditional reserve holdings, reducing demand for Treasuries.

If the bank offsets the deposit outflow by selling government securities that are subsequently purchased by the stablecoin issuer, the transaction represents a pure substitution within the financial system. Demand for aggregate sovereign bonds remains unchanged. Government debt simply moves from the banking sector to the stablecoin issuer. Under such conditions, stablecoin growth does not mechanically expand fiscal space.

### **Conditions for net expansion of sovereign debt demand**

A net increase in sovereign bond demand arises only if stablecoins are funded by additional:

- Savings,
- Capital inflows from abroad,
- Cash holdings outside the banking sector, or
- Portfolio shifts away from non-sovereign assets.

This effect is structurally stronger under a US-style framework in which reserves consist primarily of Treasury bills and repos. Under the European MiCAR, where at least 30% of reserve assets must be held as bank deposits, the sovereign demand channel is more indirect and mediated through banks' portfolio decisions.

### **Debt maturity structure and rollover risk**

If stablecoin issuers concentrate their reserves in short-term government securities, governments may find it attractive to tilt issuance toward shorter maturities to meet this demand.

Such a shift has two consequences: it may lower short-term yields (due to higher demand); it may also shorten the average maturity of public debt.

A shorter maturity profile increases rollover frequency and makes sovereign financing conditions more sensitive to interest-rate volatility. Stablecoin adoption could, therefore, modestly expand fiscal space while simultaneously increasing exposure to refinancing risk.

In this scenario, stablecoins affect not only the level of the demand for sovereign debt, but also its maturity composition, with implications for financial stability in stress scenarios.

### **Bank intermediation and funding structure**

Stablecoins compete directly with bank deposits as transaction balances. Their economic impact depends on whether deposit outflows are temporary or persistent. If stablecoin balances grow at the expense of bank deposits, banks lose a relatively stable and low-cost source of funding. To maintain lending, they must either raise deposit rates or replace funding with wholesale sources, which are typically more expensive and more sensitive to market conditions.

Under the US framework, stablecoin reserves bypass the banking system and flow predominantly into government securities, creating stronger disintermediation pressures. Under the European framework, stablecoin reserves must include substantial bank deposits, meaning part of the liquidity remains within the banking sector, thus mitigating immediate funding impacts.

Stablecoin issuers transform liabilities into digital settlement balances. If deposit funding declines structurally, the banking sector may shrink in relative size or become more dependent on capital markets. The long-run equilibrium could feature a smaller role for deposit-funded intermediation and a greater role for fiscally anchored transaction balances.

### **Monetary policy transmission channels**

The introduction of stablecoins affects monetary transmission through three distinct channels. In bank-based financial systems monetary policy operates partly by influencing bank balance sheets. Changes in policy rates affect deposit growth, funding costs, and ultimately lending. If a growing share of transaction balances migrates from banks to stablecoins, the sensitivity of bank balance sheets to policy adjustments may weaken. The traditional deposit-lending channel becomes less powerful when deposits no longer dominate transaction liquidity.

This effect is particularly relevant in the euro area, where banks remain the primary intermediaries of credit to the real economy.

### **The sovereign funding channel for monetary policy**

Under regulatory frameworks that emphasize short-term government securities, stablecoin growth increases structural demand for sovereign debt and repos. As a result, monetary policy interacts more closely with short-term funding markets. If sovereign issuance tilts toward shorter maturities to satisfy stablecoin demand, monetary operations and fiscal financing become more intertwined. In this way, the operating framework of monetary policy – including liquidity provision and collateral management – gains prominence relative to longer-term rate signaling.

### **Currency substitution and external monetary spillovers**

The most significant macroeconomic implication for Europe arises when stablecoins are denominated in a foreign currency. If euro-area residents hold dollar-denominated stablecoins:

- Euro bank deposits decline,
- Demand for euro sovereign bonds may weaken,
- Demand for US Treasuries increases,
- Domestic liquidity conditions become more sensitive to US monetary policy.

In a scenario of digital-era dollarization, even if prices remain denominated in euros, a growing share of transaction liquidity anchored in foreign sovereign debt reduces the effective scope of domestic monetary transmission.<sup>12</sup>

### **Fiscal–monetary interaction**

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<sup>12</sup> Bindseil (2022) argues that large-scale adoption of privately issued digital money could weaken the role of central bank money as the anchor of the monetary system and discusses central bank digital currency (CBDC) as a potential policy response.

Stablecoins backed by sovereign debt create a novel linkage between fiscal authorities and private payment innovation. From the fiscal perspective, stablecoin growth may broaden the investor base for government debt and create stable structural demand for short-term securities. From the central bank's perspective, however, the issuance of stablecoins escapes direct monetary control, yet influences liquidity conditions and sovereign financing structures. If stablecoins become macro-relevant, tensions could emerge between fiscal incentives to encourage sovereign-backed liquidity and monetary objectives aimed at preserving monetary and financial stability. Hence, the traditional separation between fiscal and monetary policy is blurred when private digital payment instruments are structurally anchored in sovereign debt.

### **Strategic Implications for the Euro Area**

For the euro area, the critical issue is whether there will be euro-denominated (private and/or public) stablecoins.

#### **Scenario 1: Dollar Stablecoin Dominance in Europe**

If dollar-denominated stablecoins become widely used in Europe, transaction liquidity will shift toward US sovereign backing. Demand for euro deposits and euro sovereign bonds will weaken. Therefore, monetary transmission within Europe will increasingly reflect external conditions.

#### **Scenario 2: A Private Euro Stablecoin Ecosystem**

A euro-denominated stablecoin ecosystem backed by euro sovereign assets could preserve euro liquidity in digital markets, sustain demand for euro safe assets and reduce currency substitution. However, it would depend on private intermediaries and would require coherent supervision across Member States to prevent fragmentation.

#### **Scenario 3: A Digital Euro (CBDC)**

A central bank digital currency represents the strongest form of monetary anchoring. It would eliminate fiscal intermediation and private reserve income but could intensify competition with banks and raise political-economy concerns regarding balance sheet expansion and financial disintermediation.<sup>1314</sup>

## **IV. Conclusion and Policy Recommendations**

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<sup>13</sup> Tokenized deposits offer an intermediate solution, preserving bank intermediation while modernizing settlement infrastructure. If central banks do not prepare for a DLT-based environment through the development of a CBDC, they may later face substantial difficulties in adapting to new market structures should significant technological shifts occur. A historical parallel is Intel's delayed response to major technological transitions, which subsequently weakened its competitive position.

<sup>14</sup> See Berg, Lindner, and Rößler (2026) for a discussion of the digital euro as critical payment infrastructure supporting European monetary sovereignty.

Stablecoins are not merely a technological payment innovation. They represent a structural transformation in how sovereign liabilities are held and used for settlement. Their economic and financial implications depend less on blockchain architecture than on balance-sheet composition, funding source, and currency denomination. For the United States, Treasury-backed stablecoins may reinforce sovereign demand – if there is a net expansion in demand for government bonds – while increasing short-term maturity concentration.

For the euro area, the strategic implications are more fundamental. If dollar-denominated stablecoins become dominant within Europe, transaction liquidity will increasingly be anchored in foreign sovereign debt. Over time, this may weaken the effectiveness of domestic monetary transmission and reduce the euro’s role in digital financial markets.

The policy question for Europe is therefore strategic: Should Europe passively accommodate foreign-denominated digital liquidity, or actively foster a euro-based digital ecosystem consistent with monetary sovereignty and financial stability? We suggest an active European response. We recommend:

- Strategically develop the digital euro (CBDC) to strengthen the monetary sovereignty of the euro area. A public digital settlement asset would preserve euro-denominated liquidity in digital markets and limit external monetary spillovers from dollar-based stablecoins. The objective is to safeguard monetary sovereignty while allowing private innovation to coexist at the margin.
- Strive to establish global supervisory alignment for stablecoins to limit regulatory arbitrage. Issuer-based regulation is insufficient in a world of multi-issuance, offshore domiciles, and token fungibility. Supervisory cooperation, consolidated oversight, and cross-border enforcement mechanisms are necessary to limit regulatory arbitrage and strengthen financial stability.
- Strengthen cross-border AML enforcement in public-blockchain environments. AML rules already exist in the current regulatory frameworks, but enforcement gaps persist on permissionless blockchains and across jurisdictions. Effective financial-integrity safeguards require coordinated supervision, clarity on compliance responsibilities, and credible enforcement against offshore issuers serving domestic users.

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