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Mind the Gap: How Stablecoins can Secure the UK's Financial Future

Mind the Gap: How Stablecoins Can Secure the UK's Financial Future*

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Executive Summary

As most financial centres adopt stablecoin policy frameworks, stablecoins are being embraced at speed by consumers and institutions around the world. Unlike tokenised bank deposits, which remain tethered to existing account-based systems, stablecoins function as true digital cash, circulating peer-to-peer without continuous intermediation. These tokenised representations of fiat currencies combine the stability of traditional money with the speed, efficiency, interoperability, and programmability of distributed ledger technology, and are reshaping cross-border payments, treasury management, trading, and financial infrastructure. They have emerged as the digital bridge between traditional finance and the digital economy, allowing financial institutions to offer better, cheaper, faster, and additional services while reducing their reliance on legacy IT systems. Stablecoins also promote financial inclusion by supporting remittances and expanding access to financial services for the unbanked.

As of today, the UK economy, accounting for about 3.5% of global GDP and hosting a financial centre responsible for 11% of the financial technology sector and 40% of global foreign exchange turnover, is the only major market that has not yet introduced a stablecoin policy framework. The Financial Conduct Authority has published a welcome consultation report as a step toward a comprehensive regulatory framework for UK-issued stablecoins. Such instruments will be essential to preserving and strengthening London's centuries-old position as the world's premier financial hub, as well as its leadership in FX markets and the digital economy. Stablecoins already command a global market capitalisation of more than $280 billion and are currently dominated by US dollar-backed instruments, which in turn increase demand for US government bonds and entrench dollar dominance. Major institutions from JP Morgan to PayPal to Visa are building their future business models around them.

For the UK, the strategic case for stablecoins operates across multiple dimensions. First, they represent a critical tool for reinforcing sterling's role and the UK's monetary sovereignty in a digital economy increasingly shaped by "digital dollarisation". Second, stablecoins offer the UK an opportunity to modernise its financial infrastructure while building on existing strengths. London's dominance in foreign exchange markets and prominent role in digital payments could be extended into digital asset trading and settlement through well-designed GBP stablecoins that foster new forms of treasury management, cross-border payments, trading, and financial services that align with the UK's fintech leadership. Third, the regulatory clarity provided by a comprehensive stablecoin framework would cut policy uncertainty and delays that can stall socially valuable financial innovation, enable UK-based firms to innovate responsibly, attract global stablecoin issuers to establish operations domestically, and position London as the natural hub for tokenised finance, a market that could reach $2 trillion by 2030.

Policy needs to address several macro-financial concerns. In particular, stablecoins need to be able to credibly maintain their peg, which unlike traditional pegged currencies, can be ensured through full collateralisation with reserves held in safe, liquid assets like gilts and other fiat money vehicles, held in statutory trusts. Stablecoin schemes must also be designed to avoid outflows more rapid than those of insured deposits and to mitigate liquidity risk for financial institutions. Further, the role of banks in providing stablecoin-related services needs to be considered. Banks face stricter legal constraints than non-bank stablecoin issuers, including stringent KYC obligations, resolution planning, and deposit insurance requirements. As demand for tokenised money grows, banks could serve as wallet providers, stablecoin issuers, or directly tokenise deposits that comply with traditional account-based regulatory requirements. Each pathway will alter the structure of financial intermediation and could have significant implications for financial stability. Stablecoin design should also take into account the general decrease in bank deposit rates and the implications from an increase in demand for gilts.

In the hierarchy of money, stablecoins, like money created by banks, sit below central bank money, which in the UK may soon include the digital pound. The forthcoming digital pound, as a central bank digital currency (CBDC), will represent another source of digital money. Although the digital pound will facilitate monetary policy, it is not a perfect substitute to GBP-stablecoins as a number of caveats apply. First, CBDCs are less flexible than stablecoins and designed for more limited use cases. Second, prior examples of CBDCs so far have not been very successful. Third, the time it will take the UK to roll out the digital pound will create an additional delay to the widespread adoption of digital money and likely harmful additional uncertainty, which will harm digital adoption. Finally, if perceived as the safest instrument, CBDCs could crowd out not only bank deposits but also wider parts of the financial sector. To mitigate the risks of excessively large central bank balance sheets, we recommend imposing adjustable (possibly negative) interest rate limits to stabilise demand rather than holding limits that severely restrict adoption.

Britain can design a stablecoin ecosystem that, like the EU's MiCA regulation, Singapore's Payment Token Services framework, and the US GENIUS Act, will establish requirements for full reserve backing and robust governance to ensure that private digital money can coexist with public money within a unified monetary system.

Based on our analysis and the position of Britain's economy, we make the following key recommendations:

1. Accelerate framework development for GBP-backed stablecoins, moving beyond consultation to implementation with clear timelines and pragmatic risk-based requirements that balance innovation with consumer protection.

2. Adopt a 1-for-1 collateral requirement based on short-term gilts and other fiat money vehicles, while making sure that stablecoin collateral is held in safe shelters such as statutory trusts, and that it represents no more than 10% of the market value of all short-term gilts. Given the likely adoption of the digital pound and the limited market size of GBP-backed stablecoins, we believe that sterling stablecoin collateral will enable the UK to increase its supply of short-term gilts while having a moderate impact on market dynamics.

3. Ensure transparency of reserves, smooth redemption mechanisms, KYC/AML, and robust governance, and exclude holding limits. Alongside safeguards, this should create incentives for both domestic and international high-quality issuers to integrate with domestic financial infrastructure and contribute to its robust growth.

4. Resolve regulatory coordination between the FCA and the Bank of England, establishing clear supervisory boundaries and decision-making processes that provide certainty for market participants. Make sure that UK stablecoin policy is adequate for widespread trading adoption and in line with that of other financial centres to streamline digital capital flows.

This report, developed in consultation with practitioners and academics, and drawing from the existing literature on the subject, aims to facilitate informed decision-making on the UK stablecoin opportunity while managing associated risks. We hope that it serves as a valuable contribution to the ongoing policy conversation. With decisive action, the UK can adopt an effective stablecoin policy to secure its position as a leader in the digital transformation of money and finance.

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1 Introduction

1.1 Backdrop and Motivation

Finance has long been at the forefront of innovation. Millennia after the first loans were recorded, centuries after stock markets financed major enterprises, and decades after asset-backed securities reshaped institutional balance sheets, the early 21st century ushered in a new wave of change. Crowdfunding platforms, mobile money, and blockchain networks – from the first Bitcoin block – paved the way for novel financial arrangements. Today, blockchain and AI technologies are once again transforming the financial landscape, driven by a wave of entrepreneurial activity and shaped by strategic policy choices. As in past eras, the challenge for policymakers is to harness innovation while safeguarding financial stability and consumer interests.[1]

Within this transformation, stablecoins have emerged as one of the most promising developments. By combining the price stability of fiat currencies with advantages of open digital infrastructure, they enable scalable, low-cost, and fast transfers across payments, settlement, and collateral management. Unlike central bank digital currencies (CBDCs), stablecoins are privately-issued instruments, transacted on Distributed Ledger Technology (DLT) platforms, giving them bearer-like characteristics. This design differentiates them from traditional and tokenised bank deposits. Stablecoins can be issued by non-bank and bank entities and they can be self-custodied.

The market capitalisation of stablecoins has risen from a mere $2 billion in March 2018 to above $280 billion in September 2025,[2] driven by use cases ranging from cross-border payments and trade settlement to yield generation in Decentralised Finance (DeFi). This growth is likely to accelerate in the coming years amidst growing political, industry, and regulatory momentum. Forecasts of global stablecoin market value by 2030 range from $0.5 trillion to $3.7 trillion, with a base case of $1.6 trillion (Ghose et al., 2025).

Given their significance and potential as the foundation for a digitally native financial architecture, stablecoins are drawing increasing attention from policymakers. However, policy and regulation differ widely across jurisdictions: the US, EU, Singapore, Japan and Hong Kong have already implemented regulatory frameworks, while the UK remains at the consultation stage (FCA, 2025a). Prolonged consultation and regulatory uncertainty can harm investment now and delay socially valuable innovation (Cong, Campello, et al., 2024).

British policymakers are focused on how to preserve and potentially enhance London's status as a leading global financial centre, whether in banking, asset management, foreign exchange, or derivatives trading. DLT platforms and stablecoins offer a genuine opportunity for traditional institutions to modernise services, streamline operations, and move away from legacy infrastructure. However, in the absence of a clear regulatory framework, users may gravitate toward stablecoins denominated in other currencies to access DLT-based networks and services. Over time, this could erode the UK's competitiveness and diminish London's role in the next generation of financial infrastructure.

Insight from Professor Cesare Fracassi, UT Austin.

Cesare Fracassi explains why the United Kindgom should cultivate a domestic stablecoin market.

- ***Financial innovation***: Stablecoins can catalyse new financial products and services, attract investment, create high-skilled jobs, and improve the UK's position in the global digital economy.
- ***Monetary sovereignty***: GBP-stablecoins will provide a sovereign, domestically regulated alternative to existing dollar-pegged stablecoins, crucial for maintaining financial stability and autonomy.
- ***Digital payments***: Stablecoins, with their inherent programmability and instantaneous settlement capabilities, can revolutionize payments, reducing costs, speeding up transactions, and enabling new forms of commerce, particularly cross-border payments.
- ***Stable digital infrastructure***: This can mitigate systemic risks associated with unregulated digital assets, providing both clarity for market participants and confidence for users.
- ***Stablecoin design***: UK regulators should proactively encourage the development of a UK stablecoin market by incentivizing both demand and supply for sterling-denominated stablecoins.

[1] See, among others, Chemla and Tinn (2020), Chemla and Tinn (2021), Chemla and Tinn (2025), Chen et al. (2025), Cong and He (2019), Goldstein et al. (2024), Lee et al. (2022), Lehar et al. (2025), and Di Maggio (2024).

[2] Based on data from CoinGecko, as of September 1, 2025.

A central concern relates to the composition of stablecoin reserves, particularly when invested in short-term government bonds and other High-Quality Liquid Assets (HQLAs). Compared with the US Treasury market, the UK gilt market is significantly smaller and less liquid. The outstanding stock of US Treasury debt is around $36 trillion, versus roughly $3 trillion for UK gilts. Daily trading volumes highlight this disparity even more starkly: over $1 trillion in the US compared to about $6 billion in the UK. The result is that the US market is nearly ten times larger in size and over one hundred times more liquid. Against this backdrop, large-scale redemptions of GBP-backed stablecoins could pose greater disruption to the gilt market than equivalent flows in the US.

Yet liquidity is not static. In our view, the lower liquidity of gilts reflects the dominance of long-term investors such as pension funds, which naturally reduces secondary market turnover. A rapid increase in issuance and trading activity could itself generate additional liquidity, consistent with the well-known dynamic that liquidity tends to reinforce itself. Moreover, the Bank of England has historically provided backstops in periods of stress. For example, following the LDI crisis, the Bank introduced a contingent repo facility for non-bank financial institutions, which could serve as a precedent for managing dislocations associated with stablecoin activity.

A related area of concern is the capital requirements for issuers to protect token holders against credit and liquidity risks. A credible approach is to calibrate prudential capital to explicitly model loss events across risk categories, set target solvency at a high confidence level, and validate it through stress tests. In that regard, we note that Coinbase has developed a bottom-up framework estimating the likelihood of loss events and the capital buffers required to withstand 1-in-100 year shocks; combined with a profitability model, such approaches can inform optimal regulatory parameters that ensure resilience without unduly constraining innovation.

The growth of sterling-denominated stablecoins will depend not only on supply but also on sustained demand. At present, US dollar stablecoins dominate global markets, accounting for more than 99% of issuance. In this environment, the UK's existing policy of strict separation between payment instruments and investment vehicles appears increasingly outdated. In tokenised markets, technology naturally blurs the line between payments and investments. To compete with foreign-denominated stablecoins and other forms of money, we recommend that UK regulators modernise their framework to permit stablecoins to bear interest. While this would represent a significant policy shift, precedents such as the emergence of money market funds show that banks are capable of adapting. Indeed, banks retain a comparative advantage in credit provision and can leverage innovation to strengthen their role. Similar trends are already visible in fintech, where automated flows between brokerage and bank accounts are eroding traditional boundaries. Rather than resisting this trend, UK policymakers should embrace it and encourage banks to compete and innovate.

Looking forward, it is useful to consider the potential scale of a GBP stablecoin market by 2030. The UK accounts for about 3.4% of global GDP (IMF, 2025), roughly 7% of global payments (Reuters, 2024; SWIFT, 2025), and the sterling is involved in 13% of global foreign exchange turnover (BIS, 2022b; BoE, 2022a). If sterling stablecoins were adopted at scale, their market value could plausibly represent 3–10% of the global stablecoin market. Based on Citi's base-case estimate of $1.6 trillion in 2030 (Ghose et al., 2025), this would imply a potential sterling stablecoin market of $50–160 billion. Importantly, the impending introduction of the digital pound as a CBDC would likely act as a partial substitute, reducing – but not eliminating – the scope for sterling stablecoin growth. However, the digital pound will take time to roll out, currently existing CBDCs have not met much success, and even the digital pound does, the flexibility of stablecoins gives them a broader set of use cases. Finally, just like banks have long created money, stablecoin institutions can be private digital money issuers, which would avoid the risks of excessively large central bank balance sheets (Curdia et al., 2011; Reis, 2013a; Reis, 2013b).

We note that, to minimize disintermediation, the consultation paper on the digital pound has suggested holding limits of £10,000–£20,000 for individuals and £10 million for businesses (BoE, 2023),[3] which would likely be improper to many use cases. For example, daily FX trading volumes are in excess of $7.5 trillion. In contrast, adjustable (potentially negative) interest rates could provide the BoE with an alternative monetary policy instrument that could be at least as effective (Panetta, 2018; Bindseil, 2020; Bindseil and Panetta, 2020; Bindseil, 2022).

[3] See also the FT report on industry criticism of proposed caps on stablecoin holdings.

1.2 Monetary Foundation

Beyond competitiveness, policymakers may also want to grapple with the monetary foundations of stablecoins, including how to protect the stability of their peg. This challenge is best understood through the lens of the "money view" of Mehrling (2013) and Pozsar (2014), which places stablecoins and other money-like instruments in a hierarchy that spans from *money* (final means of payment) to *credit* (promises to pay) (Aldasoro, Mehrling, et al., 2024). At the top are central bank reserves and cash, followed by commercial bank deposits offering par convertibility to central bank money, supported by deposit insurance and lender-of-last-resort facilities.[4] Stablecoins sit lower in this hierarchy alongside other forms of shadow money, redeemable for commercial bank deposits but without state backstops (Figure 1).

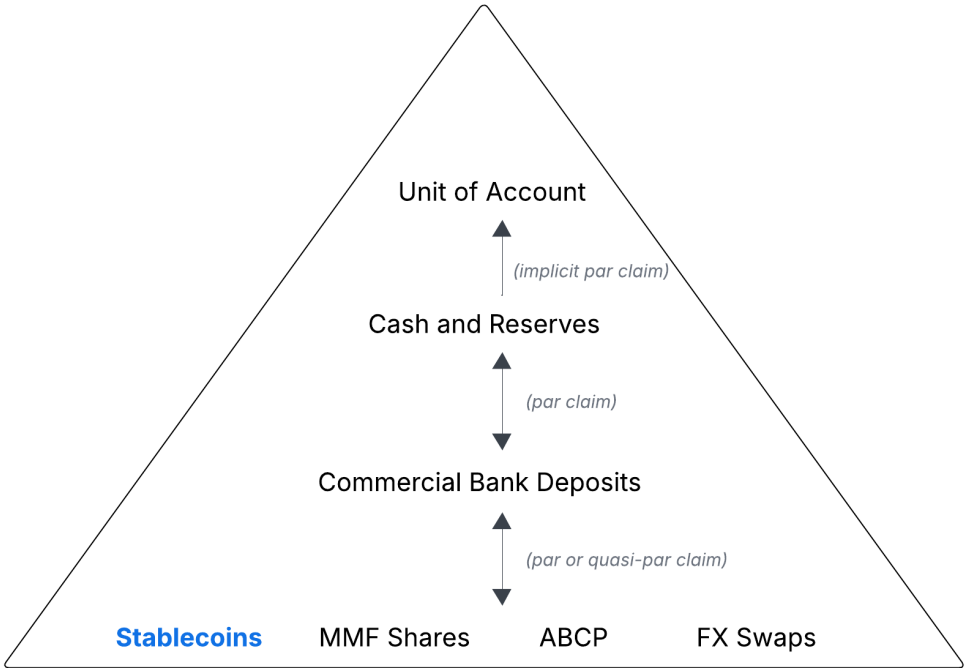


Figure 1: Hierarchy of fiat-based money, including stablecoins

Notes: This figure is inspired by Murau et al. (2020).

Despite their lower ranking in this hierarchy, stablecoins are often perceived as safe, liquid and information-insensitive. In the absence of regulatory safeguards, such perceptions may pose systemic risk: like in the case of traditional currency pegs, a loss of confidence could trigger runs and contagion, while sustained growth could alter intermediation in the financial system. One area of debate here is whether interest-bearing stablecoins would crowd out deposits and materially disrupt bank lending activity (Coste, 2024).

Collateral composition is another critical dimension. Most fiat-backed stablecoins are secured by government bonds and other High-Quality Liquid Assets (HQLAs). Large-scale issuance could drive increased demand for such assets, potentially exacerbating safe asset scarcity during periods of market stress (Chemla and Hennessy, 2016). To mitigate this risk, policymakers ought to consider allowing a broader range of eligible collateral, provided that issuers meet appropriate disclosure and transparency requirements proportionate to the associated risks.

At the same time, it is important to recognise that crypto-backed stablecoins have gained significant traction in DeFi applications. Overly strict requirements that limit collateral to HQLAs may inadvertently stifle innovation in this space.[5] Such an approach could also drive activity offshore, where oversight and consumer protections have proven to be weaker.

[4] It is worth noting that deposit insurance is limited (e.g. £85,000 per person per institution in the UK), so large wholesale balances are effectively uninsured, whereas many fiat-backed stablecoins are 100% backed by short-term liquid assets. For such uncovered balances, stablecoins may in practice be perceived as a safer claim.

[5] We note that US policymakers are considering a regulatory exemption for certain forms of DeFi activity, citing the sector's growing significance.

1.3 Aims of this Report

Against this backdrop, research institutions have a role to play in offering analysis that informs both policy design and industry practice.

The *Centre for Financial Technology* at Imperial Business School is well-placed to contribute to this conversation. Drawing on expertise across banking, capital markets, corporate finance, and financial regulation, and maintaining active links with industry and government, the Centre applies a cross-disciplinary lens to the digital transformation of financial services. The *Centre for Cryptocurrency Research and Engineering* at Imperial complements this with expertise in blockchain infrastructure, token standards and regulation.

This report examines developments in stablecoin policy and practice worldwide, with particular attention to their implications for the UK economy. It addresses issues raised by market practitioners, policymakers, academics, and British consumers, including:

- The role that stablecoins can play in the UK financial system, and the case for their introduction.
- Key regulatory challenges and recommendations to ensure financial stability, transparency, and effective regulatory frameworks.
- The Bank of England's concerns, including the singleness of money, potential displacement of deposits, and risks associated with permissionless DLT platforms.
- The potential benefits for the real economy, financial markets, and UK consumers, from greater transparency and cost savings to enhanced efficiency at scale.

Beyond these topics, the report seeks to bridge three communities that often speak past one another: academic researchers, financial practitioners, and policymakers. By combining insights from the expanding literature on digital money with evidence from market practice and industry engagement, it offers practical recommendations grounded in current policy debates in the UK and abroad. Incorporating diverse perspectives, the report provides a balanced foundation for further debate, research, and effective policy design.

1.4 Report Outline

The remainder of this report is organised as follows:

Section 2 examines the strategic significance of stablecoins for the United Kingdom, outlining the current policy, potential opportunities, and the cost of policy uncertainty and regulatory delay.

Section 3 analyses patterns of stablecoin adoption by countries and regulatory status in the UK, highlighting the dominance of USD-pegged stablecoins, the scarcity of GBP-based alternatives, and the risks of falling behind. It also reviews existing UK regulatory proposals and the importance of international coordination to avoid market fragmentation.

Section 4 presents the current stablecoin landscape. It quantifies market size and trading trends, classifies stablecoins by reserve composition, governance, and yield-bearing characteristics, and examines their main use cases across payments, store-of-value functions, trading and DeFi investment, and banking. This section also analyses the role of key market participants including issuers, exchanges, on-chain protocols, wallet providers, custodians, and traditional financial institutions, and draws lessons from past de-pegging episodes to identify factors that underpin peg stability.

Section 5 considers the macro-financial implications of stablecoins. It explores their effects on the banking sector, Treasury markets, and foreign exchange markets, and situates them within the broader category of tokenised money. The section further compares stablecoins to other money-like instruments, sets out principles for effective design, and discusses implications for regulators and policymakers.

Appendix A provides a broader perspective on the global rise of tokenisation. It reviews recent regulatory and industry pilots in leading financial centres.

Appendix B summarises regulatory approaches in key jurisdictions, including the European Union, the United States, and other regions.

Last, Appendix C shares perspectives on international policy coordination and the risks that emanate from a fragmented regulatory environment.

2 The Stablecoin Moment: What's at Stake for the UK

2.1 Current policy landscape

The UK remains without a credible GBP-pegged stablecoin or a domestic issuer of global significance. This absence is drawing increasing concern from financial markets, digital asset firms, and policy circles alike (see Section 3.3).

The UK's regulatory response is being shaped jointly by the Financial Conduct Authority (FCA) and the Bank of England (BoE), following directives from HM Treasury. We begin with the FCA's latest proposals before turning to the Bank's framework for stablecoins.

2.1.1 FCA proposals

In May 2025, the FCA published draft rules to bring fiat-backed stablecoins within the UK's regulatory perimeter. Focused on single-currency stablecoins, the framework applies to UK issuers and custodians. The proposed set of rules is extensive and technical in scope, but the key concepts can be summarised as follows:

- **Reserve composition**: issuers must maintain full reserves of select HQLAs to match outstanding stablecoin liabilities. Eligible assets broadly fall into two new risk tiers, referred to as "core" and "extended". All reserve assets must be denominated in the reference currency to eliminate foreign exchange risk.
- **Redemption rights**: users must be able to redeem stablecoins at par value directly with the issuer, typically within one business day. This prevents users from having to go through wholesale intermediaries.
- **Asset custody and segregation**: reserve assets must be held in custody with strict segregation from the issuer's own assets.
- **Governance and risk management**: firms are expected to meet standards on operational resilience, liquidity stress-testing, and other risk controls.
- **Disclosure and transparency**: regular attestations and public disclosures are required concerning reserve composition and redemption activity.
- **KYC/AML requirements**: issuers must comply with the UK's anti-money laundering and counter-terrorist financing (AML/CFT) regime, in the context of users involved in issuance and redemption activity.
- **Prohibition on interest**: issuers are not permitted to pass through interest earned on reserves to users, reflecting concerns over monetary transmission and bank disintermediation.
- **Scope of oversight**: stablecoins assessed as posing systemic risk would be jointly overseen by the FCA and the Bank of England, while all other fiat-backed payment stablecoins would remain solely under the FCA's supervision.

While these proposals set out a foundational framework, major uncertainties remain, particularly around payment systems integration, implementation timelines, and supervisory coordination between the FCA and BoE. The FCA has indicated implementation could begin in 2026, but timing remains unclear.

2.1.2 BoE proposals

In parallel, the Bank of England's proposals for "systemic stablecoins" are equally significant. In the Bank's usage, this term does not comprise a new legal category, but rather stablecoin arrangements that, if used at sufficient scale, could be designated as systemic payment systems under the Banking Act 2009.

The Bank's 2023 Discussion Paper suggested that issuers of systemic stablecoins should be required to hold 100% backing in unremunerated central bank deposits. Unlike commercial banks, such issuers would not benefit from interest on these balances. This would most likely make it unprofitable for stablecoin issuers to operate; unless they impose transaction fees, which would make them less competitive to peers in other jurisdictions. In that context, we note that Coinbase has developed a profitability model to assess the viability of a stablecoin issuer across various HQLA percentages, transaction fees, and interest rate environments.

The Bank also proposed holding limits for stablecoins, intended to mitigate the risk of bank disintermediation. Restricting usage to protect incumbent balance sheets, however, sits uneasily with the broader objective of regulation to facilitate innovation. Comparable instruments such as e-money and money market funds (MMFs) have not been constrained in this way. Moreover, the scope of the Bank's regime remains unclear, particularly whether stablecoins used for trading and settlement of digital assets or for cross-border payments would be captured.

The Bank has recently indicated a willingness to adjust its approach, including allowing a portion of reserves to be held in yield-bearing HQLAs.[6] A credible sterling stablecoin could reduce such costs while anchoring innovation within the UK's financial ecosystem. However, these changes have not yet been formalised in concrete guidance, leaving issuers and market participants with limited clarity.

The prevailing uncertainty reinforces the impression that UK policy is fragmented and reactive, rather than strategically coordinated between the FCA and the BoE. In parallel, the Bank of England is also exploring the case for a retail central bank digital currency (the *digital pound*). While formally distinct, this initiative overlaps with many of the same policy questions raised by stablecoins, further underscoring the absence of a coherent national strategy on digital money.

2.1.3 International positioning

In contrast to the UK, other jurisdictions are moving with greater speed and clarity. In the United States, the GENIUS Act was signed into law in July 2025, establishing the first federal framework for payment stablecoins. The European Union has adopted the Markets in Crypto-Assets (MiCA) regulation, a comprehensive regime that includes tailored provisions for stablecoins. Singapore, Hong Kong, and Japan have likewise enacted comparable legislation. The status of these frameworks is summarised in the table below.

Table 1: Chronology of Major Regulatory Frameworks

Jurisdiction	**Legislation/Regulation**	**Status / Effective Date**
Japan	Stablecoin Law	In effect since Jun 2023
Singapore	Stablecoin Framework	In effect since Aug 2023
EU	MiCA	Fully in force since Dec 2024
United States	GENIUS Act	Signed into law in Jul 2025
Hong Kong	Stablecoin Law	In effect from Aug 2025
United Kingdom	FCA/BoE proposals	Consultation stage

Notes: This table presents the chronology of major regulatory frameworks. Appendix B.1 provides a more comprehensive overview of regulatory frameworks and their implementation histories across different jurisdictions.

The UK strives to be a "global hub for cryptoasset technology". Yet, it continues to lag in articulating a coherent approach to stablecoins and in supporting GBP-backed alternatives. Addressing this should be a policy priority, with strengthened industry dialogue and adequate public resources.

Insight from Myra Yin, Chairwoman, Tensant Securities Ltd.

Myra Yin outlines a comprehensive approach to regulating stablecoins while supporting innovation and financial stability.

- ***Risk-based regulation***: Tailor rules to stablecoin models, balancing innovation and stability.
- ***Reserve requirements***: Mandate full, transparent reserves audited regularly to ensure redemption.
- ***Interoperability standards***: Develop global standards for tokenised assets and CBDCs to enable seamless settlement, as in Hong Kong's Project Ensemble.
- ***Consumer protection***: Enforce AML/KYC rules, plus deposit insurance analogs for stablecoins.
- ***Sandbox testing***: Expand regulatory sandboxes (e.g., HKMA's Stablecoin Issuer Sandbox) to test stablecoin use cases safely. This fosters innovation while mitigating risks.

[6] As noted in a speech from Sarah Breeden (Deputy Governor) in September 2025.

2.2 Framing the opportunity for the UK

The UK's slow progress on stablecoin regulation presents challenges, but it also clarifies the scale of the opportunity. The question is no longer whether stablecoins will become part of the monetary system, but how the UK can secure its place in this transformation.

This section sets out how that opportunity can be framed, and the key areas in which UK policymakers can deliver a credible, strategic response.

Stablecoins as a digital evolution of cash. Fiat-referenced stablecoins represent a natural evolution of physical cash in an increasingly digital economy. These stablecoins retain the key monetary characteristics of cash, including bearer-like transferability and fiat currency denomination, while enabling programmability, coordinated settlement, and low-friction transfers across a global user base. Unlike tokenised bank deposits, which are embedded within existing account-based systems and subject to tight intermediary controls, stablecoins function more like digital cash: they can circulate peer-to-peer without the need for continuous intermediation. If properly regulated, such instruments could serve as a new form of public-private money infrastructure, enhancing resilience, competition, and innovation across both retail and wholesale use cases.

Reinforcing the UK's position as a fintech hub. Establishing a stablecoin regime that is open, well-calibrated, and aligned with international standards would build on the UK's strengths as a global financial centre. It would also complement ongoing work in areas such as tokenised settlements and open banking. In particular, a domestic framework for GBP-backed stablecoins would offer UK-based fintech companies, financial institutions, and infrastructure providers a clear path to innovate responsibly within the regulatory perimeter. This could support the development of new payment systems, capital market tooling, and cross-border solutions, all anchored in sterling rather than defaulting to USD-linked alternatives. Such a step would not only protect domestic interests but also project UK leadership in global financial standards-setting.

Driving business activity and economic value creation. A credible stablecoin framework would not only modernise payments and financial infrastructure but also potentially unlock meaningful economic value across a range of UK industries. Regulatory clarity would enable firms, ranging from payments providers and asset managers to enterprise software and e-commerce platforms, to build new products, streamline treasury operations, and scale innovative sterling-based services. It would also position the UK to attract global issuers, listings, and investment activity, reinforcing the competitiveness of its capital markets. As firms like Circle Internet Group (NYSE:CRCL) enter public markets, the UK has a timely opportunity to anchor this activity domestically, supporting job creation, business formation, and long-term economic growth.

A second-mover advantage. Although the UK has been slower than some jurisdictions to implement stablecoin regulation, this delay can be turned to strategic advantage. As a second mover, the UK has the benefit of observing regulatory approaches elsewhere, particularly MiCA and evolving US and Asian frameworks, and learning from their early implementation challenges. This allows policymakers to design a regime that avoids overly rigid structures, supports innovation, and addresses known weaknesses in first-generation frameworks. A second-mover advantage also allows the UK to tailor its approach to domestic priorities, such as the role of GBP in digital finance and the integration with broader payments infrastructure, while positioning itself as a high-integrity environment for global digital asset activity.

Realising the opportunities highlighted in this section requires decisive and coordinated action. The window for strategic advantage is narrowing as other jurisdictions advance, and continued uncertainty and delay generate mounting risks.

Insight from Arnaud Porchet, Goldman Sachs

Arnaud Porchet emphasises that policy efforts should aim to integrate stablecoins into the broader financial system through well-designed regulation. He points to recent US initiatives such as the GENIUS Act, which offers a framework for safe and effective adoption. Given London's role as a global financial and FX hub, he suggests that the evolving US regulatory approach could serve as a valuable model for shaping stablecoin policies in other major centres.

2.3 The cost of delay: key risks

Based on our analysis of the stablecoin market and DLT-linked innovation, policy uncertainty and delayed implementation carry risks for the UK. These risks are grounded in global trends, from cross-border trade settlement to digital asset market structures, and in structural shifts in how financial services are evolving.

Competitiveness and innovation risk. The UK's position as a leading global financial centre is underpinned by its ability to adapt to technological change and attract high-quality market participants. As other jurisdictions move ahead with clear regulatory frameworks for stablecoins, the UK's delay may deter fintech companies and institutional players seeking regulatory certainty and infrastructure support. Theory shows that capacity-constrained regulators can lead policymakers to delay socially valuable innovation (Cong, Campello, et al., 2024). Such delays are costly, as banking technology adoption lowers intermediation costs, expands SME lending, raises productivity and long-run growth (Jiang et al., 2025). The EU's MiCA framework, for example, is becoming increasingly attractive to market participants, offering harmonisation and passporting that appeal to firms that might otherwise have viewed the UK as a natural base. Without decisive action, the UK risks losing investment, talent, and influence over the future of digital finance.

The absence of a GBP stablecoin is already being noted by UK firms as exposing them to "unnecessary FX costs," as cross-border trade and digital transactions often default to USD or EUR stablecoins.[7] A credible sterling stablecoin could reduce such costs while anchoring innovation within the UK's financial ecosystem.

Monetary sovereignty risk. With over 99% of global stablecoins (by market value) linked to the US dollar, the digital asset ecosystem is increasingly reliant on foreign currency instruments. Without a credible GBP-backed alternative, UK market participants are defaulting to USD-denominated stablecoins. Over time, this trend risks marginalising sterling in the digital economy and may pressure the UK's monetary sovereignty.

Notably, members of the US government have acknowledged the potential for USD stablecoins to enhance the international competitiveness of the dollar and to generate positive spillovers for US government debt markets, given the composition and scale of issuers' reserves. Without a deliberate policy response, core elements of the UK's financial infrastructure may become dependent on offshore, dollar-linked systems beyond the reach of UK regulatory and monetary authorities. This scenario of "digital dollarisation" has been highlighted by international standard-setters as a risk to domestic monetary sovereignty (CPMI, 2023).

Consumer protection risk. Stablecoins are already in circulation and being adopted by consumers and businesses in the UK, primarily through offshore products. This regulatory void leaves users exposed to significant consumer risks. Without proper safeguards, consumers may be misled about the quality of reserves, redemption rights, or the legal standing of their holdings. In the event of issuer failure or operational disruption, users could face losses with limited avenues for recourse. A lack of consistent rules for stablecoin schemes could erode public trust and slow the adoption of regulated digital payment solutions.

Market integrity and illicit finance risk. Weak, uncertain, or delayed regulation increases the risk of misconduct in stablecoin markets. This includes potential misuse for fraud, money laundering, and sanctions evasion, as well as governance failures such as poor reserve management, related-party dealings, or undisclosed conflicts of interest. Without a clear framework for audits, custody, and risk disclosures, issuers operating in or accessible from the UK may undermine market integrity. Over time, this can damage the credibility of the wider digital assets sector and complicate supervisory oversight.

Emerging financial stability risk. Although no GBP-based stablecoin currently operates at systemic scale, this could change quickly as adoption accelerates. The experience of international markets shows that demand for fiat-linked safe assets can scale rapidly, particularly in payments, trading, and settlement contexts (BoE, 2022b). If a stablecoin were to gain significant traction in the UK without being subject to adequate prudential safeguards, its failure – whether due to a loss of confidence, a liquidity mismatch, or governance issues – could transmit stress to wider financial markets. Delaying the establishment of a robust framework increases the risk of being forced into reactive, crisis-driven regulation.

Taken together, these risks show that stablecoin regulation is not merely a consumer protection issue, but rather a foundational decision for the UK's financial architecture. Uncertainty and delay increase risks of losing competitiveness, diminished regulatory control, erosion of monetary sovereignty, and deeper reliance on foreign currency systems.

[7] See CryptoSlate's coverage of Agant's GBPA project.

Insight from Professor Andreas Veneris, University of Toronto

Prof Veneris argues that major financial and FX centres must establish clear policy and operational frameworks for CBDCs and stablecoins.

He points out that 134 countries, representing 98% of the global economy, are exploring or piloting CBDCs, with many BRICS+ members already in public testing phases and discussing interoperability for direct currency-based trade. Thus FX centres need to prepare for interaction with foreign CBDCs.

In parallel, geopolitical trends suggest that the United States may promote stablecoins as alternatives to CBDCs. Combined with the broader expansion of digital assets, including tokenisation and DeFi, this creates a strategic imperative for FX centres to adopt robust frameworks to remain competitive and relevant in a rapidly evolving financial landscape.

2.4 Considerations for a fit-for-purpose regime

Given the scale of opportunity and mounting risks from policy uncertainty and delays, the UK's approach to stablecoin regulation hinges on design trade-offs. These choices will shape whether the framework supports innovation and competitiveness or entrenches barriers and fragmentation. The following considerations highlight key areas where policy must balance prudential safeguards with commercial and operational realities:

The ban on interest-bearing stablecoins. The FCA's proposal to prohibit issuers from passing through interest earned on reserve assets reflects a widely-held international stance, codified in frameworks like MiCA, that payment stablecoins should function as transactional instruments akin to traditional e-money. This stance is motivated by concerns around monetary policy transmission, financial stability, and the disintermediation of commercial bank deposits. These concerns are echoed in guidance from international bodies, including the Bank for International Settlements (BIS) and the Financial Stability Board (FSB).

However, the boundary between stablecoins and tokenised money market funds is increasingly blurred, particularly as the latter gain traction on DLT platforms and are accepted as collateral in on-chain financial arrangements. In this context, prohibiting stablecoin interest risks distorting competition and incentivising regulatory arbitrage. Users seeking yield may be pushed toward offshore products that employ synthetic wrappers or to DeFi protocols offering returns through less transparent or riskier structures. These alternatives expose users to elevated credit, liquidity, and technical risks.

This tension may be further compounded by the entry of commercial banks into the issuance of stablecoins or tokenised deposits, potentially offering interest-bearing instruments under different regulatory umbrellas. Without a consistent approach, this could result in uneven playing fields, arbitrage across regulatory categories, and fragmentation of standards within the digital money ecosystem.

Rather than a blanket prohibition, UK regulators should explore flexible approaches distinguishing use cases. Interest-bearing features could be permitted with enhanced governance, disclosure, and prudential requirements, particularly for institutional settlement or treasury contexts. This would support competitive and responsible product development while preserving monetary and financial stability objectives of the regime.

Reconsidering overly-bank-like capital and liquidity requirements. The FCA's proposed reserve backing model includes a near-bank standard for capital and liquidity requirements, including specific asset composition thresholds and stress testing, which would lead to a policy significantly more constraining than policies in place in other major financial centres. This would effectively position stablecoin issuers as a form of narrow bank. While prudence is important, particularly for systemically-important stablecoins, imposing overly burdensome requirements at the outset risks creating unnecessary barriers to entry and deterring credible innovation. Many stablecoins will operate on a narrow scale, with limited risk of contagion, and may not warrant the proposed treatment. Greater flexibility here is key to fostering a thriving stablecoin market.

Managing regulatory arbitrage and encouraging UK establishment. The FCA's proposed reserve backing model sets near-bank standards for capital and liquidity requirements, with thresholds and stress testing. This positions stablecoin issuers as a form of narrow bank. The Bank of England goes further for systemic stablecoins, suggesting full reserves in unremunerated central bank deposits, which would make GBP-stablecoin issuers the only ones not earning interest on collateral in major financial centres, and potential holding limits that would essentially prohibit institutional use cases and in particular a safe digital asset in future tokenised markets. While prudence is important, particularly for systemically significant issuers, ap-

plying such bank-like requirements too broadly risks creating barriers to entry, deterring innovation in digital payments, capital markets, and the digitalisation of financial institutions, and pushing activity abroad. Greater proportionality will be key to supporting a competitive and diverse stablecoin market, and to ensuring that credible issuers choose to operate within the UK's supervisory perimeter.

Enabling access to core payment infrastructure. For stablecoins to operate at scale, issuers and supporting institutions may need access – directly or indirectly – to the UK's core payment infrastructure, including FPS, CHAPS, and potentially the Bank of England's RTGS system. This is not about privilege, but about enabling efficient minting, redemption, and reserve management. Without it, issuers must rely on commercial banks as intermediaries, adding friction, cost, and operational risk. Access could support faster settlement, improve transparency around reserve flows, and enhance trust in GBP-backed stablecoins. That said, access must be conditional on strict governance, clear redemption processes, and robust compliance with financial crime and sanctions obligations, given the potential for wide and permissionless circulation.

Addressing legal and definitional uncertainty. The current proposals are extensive but leave critical questions unresolved, including core definitions, supervisory boundaries, and issues deferred to future consultations. In our view, the draft rules are overly-prescriptive in places and introduce layered classifications that generate significant interpretive uncertainty for prospective issuers. This complexity makes it difficult for firms to assess their regulatory obligations or prepare for authorisation. It risks discouraging market entry, especially when alternative regimes may offer clearer, more predictable pathways. To support investment and innovation, the UK regime should be streamlined and grounded in commercial and operational use cases.

2.5 Recommendations and next steps

The UK stands at a critical juncture in the evolution of digital money. The analysis points to a clear conclusion: the country can either participate in shaping the global stablecoin landscape or risk being shaped by it as all other financial centres have already adopted stablecoin policies. The choice requires decisive, coordinated action across multiple fronts. We recommend that UK regulators focus on four immediate priorities:

1. **Accelerate framework development** for UK-based stablecoins (particularly GBP-linked ones), moving from consultation to implementation with clear timelines and pragmatic, risk-based requirements that balance innovation with consumer protection.
2. **Resolve regulatory coordination** between the FCA and Bank of England, establishing clear supervisory boundaries that provide certainty and avoid duplication for market participants.
3. **Create positive incentives** for high-quality stablecoin issuers (across G10 currencies) to establish UK operations and ensure sufficient liquidity anchors domestically, avoiding regulatory requirements that may push activity abroad unless absolutely necessary. Adopt a policy that is in line with that of other major financial centres so as to attract international capital flows.
4. **Enable infrastructure access** through a clear pathway for qualified stablecoin issuers to access core UK payment systems and financial markets, subject to appropriate safeguards and ongoing supervision, and encourage integration by UK financial institutions into their service offerings.

These priorities set out the immediate steps for a workable UK regime. Section 3 analyses the Bank of England's technical arguments in greater detail, while Section 5 considers the wider macro-financial implications and offers economic suggestions for policymakers.

Insight from Professor Jonathan Haskel, Imperial Business School

Prof Haskel points out that the UK badly needs innovation to boost its productivity growth. Crucially, to boost modern-day innovation requires investment not in the tangible assets of vehicles, buildings, and equipment, but in the intangible assets of software, market research, and reputation. Investment in intangible assets needs a stable and well-thought-out regulatory framework.

He also emphasises the need for strong regulation around stablecoins, for example, around the quantity and safe holding of collateral. One great strength of the City of London is the long-lived reputation of its legal system in resolving disputes involving complicated financial transactions in a fair and predictable way. Matching this key British asset with well-designed regulation gives strong potential for financial innovation to flourish, particularly in the UK.

3 Stablecoin Adoption and the GBP Gap

3.1 Stablecoin adoption by region

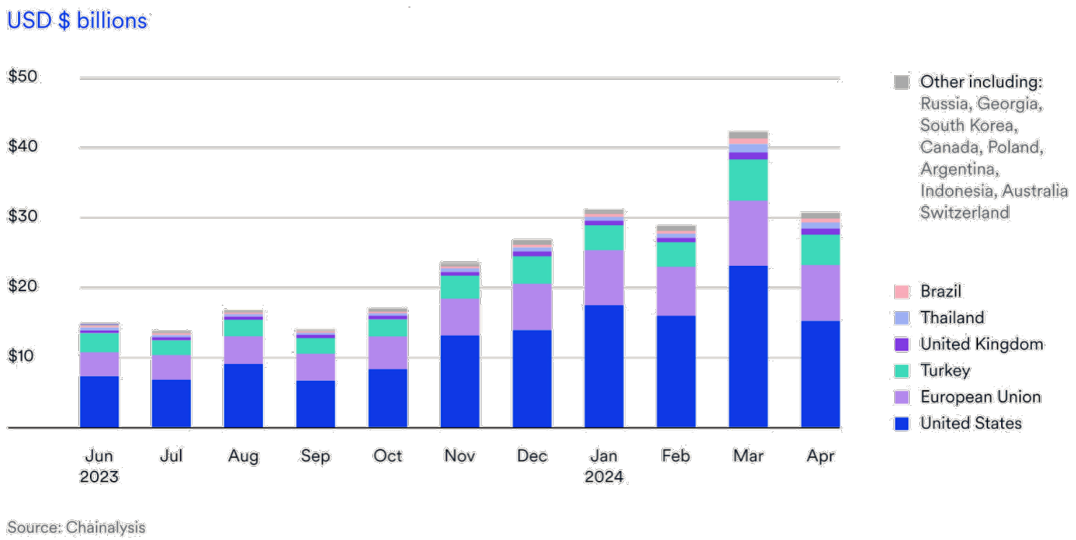


Figure 2: Monthly fiat-backed stablecoin purchase by country

Notes: This stacked bar chart shows estimated monthly purchases of fiat-backed stablecoins (in USD billions) by country or region from June 2023 to April 2024. The original figure is sourced from the Chainalysis report, available here.

Figure 2 shows stablecoin purchases by region, with a clear upward trend in total volume. As Kimberly Grauer, Director of Research at Chainalysis, observes: "*The purchases of stablecoins using local fiat currency serve as a strong proxy for global usage, and the increasing volumes indicate that stablecoins are becoming a truly global asset*" (BVNK, 2025). It is clear that the United States accounts for the largest share of volume, followed by the European Union. Together, these two regions clearly dominate the market, reflecting strong demand in mature financial systems. Turkey ranks third, ahead of many expected contenders, indicating potential adoption of stablecoins as a hedge against local currency instability.

In contrast, the UK, despite its efforts to present itself as a global crypto hub, shows relatively limited activity in the chart. This highlights the gap between policy ambition and actual market behavior. Other countries, including Thailand, Brazil, and a group labeled as "Other" (which includes multiple nations), also show growing participation. This points to the expanding global reach of fiat-backed stablecoins.

3.2 USD-pegged stablecoins dominate the market

Stablecoins are often pegged to major fiat currencies, such as U.S. dollar (USD) and euro (EUR), to keep a stable value. USD-pegged stablecoins have led the market, largely because of the dollar's role as a global reserve currency and its widespread use in international finance. In contrast, EUR-pegged stablecoins have seen comparatively lower levels of adoption, though they are actively used within European markets. As for stablecoins pegged to other fiat currencies, their presence remains minimal. Although several such projects have emerged in recent years, none have gained meaningful market share.

As shown in Figure 3, both the number and market capitalisation of USD-pegged stablecoins have increased greatly over the past decade. The number of such stablecoins increased from just one in 2015 to 176 by September 2025. Market capitalisation followed a similar path, reaching over $280 billion. The significant growth trend after 2020 reflects increased interest in stable, dollar-based digital assets. This may be related to the wider use of stablecoins in areas such as DeFi, cross-border payments, and crypto trading. The continued dominance of USD-pegged stablecoins can be attributed to the dollar's status as the global reserve currency and the strong market positions of major issuers such as Tether and Circle.

In contrast, EUR-pegged stablecoins have shown relatively modest growth. Their number has increased

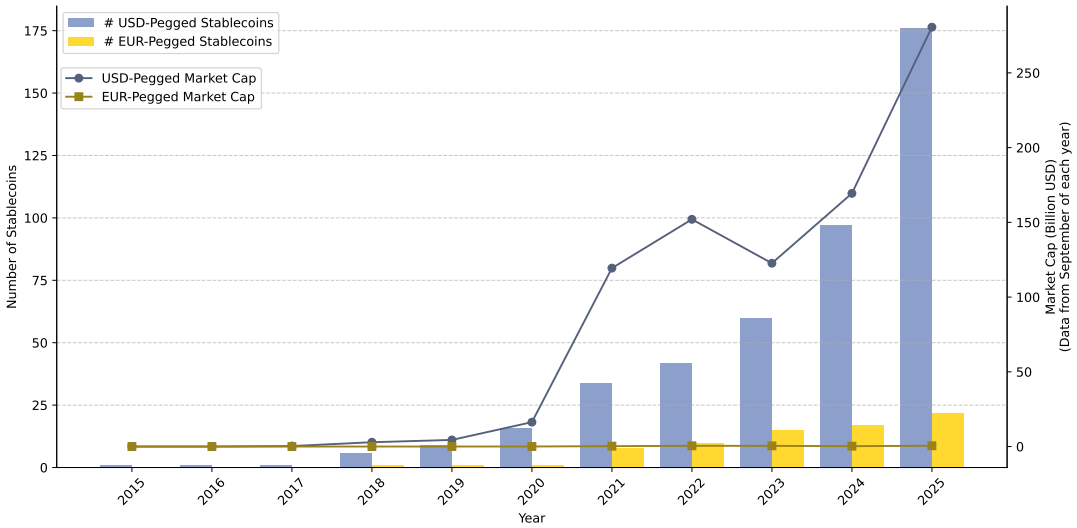


Figure 3: Growth of USD- and EUR-pegged stablecoins

Notes: This figure plots the number of USD- and EUR-pegged stablecoins (bars, left axis, measured as the total number of active coins each year) and their respective market capitalisations (lines, right axis, recorded in September of each year). As of September 2025, top USD-pegged stablecoins are Tether (USDT), USD Coin (USDC), and Ethena USDe (USDE), and top EUR-pegged stablecoins are EURO COIN (EURC), STASIS EURO (EURS), and EUR CoinVertible (EURCV). Data source: CoinGecko.

steadily, reaching 22 in September 2025. This growing presence shows rising interest in non-USD stable assets, especially under Europe's evolving regulatory framework. However, their total market capitalisation remains low at $0.54 billion, far behind their USD-pegged counterparts. While EUR-pegged stablecoins have seen some expansion, they have struggled to achieve the same level of adoption as USD-pegged stablecoins. This reflects the comparatively lower demand for euro-denominated assets within global markets.

Overall, Figure 3 reflects broader trends in the stablecoin market. USD-pegged stablecoins remain dominant. This is due to their wide adoption and strong links to the global financial infrastructure. Meanwhile, the gradual rise of EUR-pegged stablecoins shows a growing interest in non-USD stable assets. Stablecoins pegged to a country's domestic currency can bring practical benefits. They may reduce foreign exchange risk and help improve financial access in domestic markets. As adoption grows, more fiat currencies are likely to be represented through new stablecoins beyond USD and EUR. Looking ahead, developments such as regulation, institutional participation, and changes in global monetary policy may influence how these fiat-backed digital assets evolve and how they fit into the wider financial system.

3.3 UK's lack of GBP-based stablecoins

As shown in Figure 3, USD-pegged stablecoins continue to lead the market, while EUR-pegged stablecoins have shown some growth. In contrast, the UK still lacks widely used GBP-based stablecoins.

3.3.1 Causes of the shortfall

The absence of GBP stablecoins reflects structural and policy factors. Structurally, sterling plays a more limited role in international money flows than the US dollar, reducing the immediate market pull for GBP-denominated assets. On the policy side, the UK's conservative stance, and the Bank of England (BoE) 's emphasis on the **singleness of money** and **finality of settlement** (BoE, 2024b) has reinforced barriers to GBP stablecoin issuance. While these principles underscore stability and trust in the UK's monetary system, an overly-strict application can also constrain the development of domestic stablecoin markets (Massari, 2025). In the subsequent analysis, we assess commonly-cited regulatory concerns.

- Singleness of money and its perceived incompatibility with stablecoins. This principle requires that all forms of GBP, whether held as bank deposits, physical cash, or central bank reserves, are interchangeable at par. It prevents monetary fragmentation and guarantees that all monetary instruments denominated in GBP hold equivalent value. However, stablecoins challenge this principle in several ways:

- *Lack of guaranteed 1:1 parity with GBP*. Unlike central bank-issued money, stablecoins rely on private issuers to maintain their peg. Even if fully backed by GBP reserves, they do not benefit from the same legal and institutional safeguards that ensure the stability and adequacy of reserves. This may lead to price deviations or liquidity mismatches (R. Garratt et al., 2023), which contradicts the principle of singleness.
- *Potential creation of a parallel monetary system*. A widely adopted GBP stablecoin may result in a dual-currency structure (Wen et al., 2025), where users favour stablecoins over deposits or central bank money. This may fragment the financial system if different forms of GBP are not fully fungible.

- Finality of settlement and the legal uncertainty of stablecoin transactions. The second major barrier is the principle of settlement finality, which holds that once a payment is settled, it is irrevocable and legally enforceable. Stablecoins present challenges to this principle due to several factors:
  - *Lack of regulatory clarity on stablecoin settlement*. In the traditional financial system, settlement occurs through central bank-operated Real-Time Gross Settlement (RTGS) systems, which provide legal certainty and ensure the finality of transactions upon settlement. In contrast, stablecoin transactions occur on blockchain networks, where settlement finality depends on network consensus mechanisms rather than a central authority. The BoE has raised concerns[8] that a decentralised settlement system may not provide the same legal certainty and resilience as traditional financial infrastructure. The BIS has similarly highlighted that while blockchain networks may achieve technical finality through consensus mechanisms, this is not equivalent to legal finality as recognised in traditional financial systems (Arner et al., 2020). Without legal recognition of on-chain settlements, stablecoin transactions may still be vulnerable to challenge in the broader financial and legal context.
  - *Potential risks of transaction reversibility*. Blockchain transactions typically achieve "probabilistic finality" (Anceaume et al., 2020), where a transaction is considered final only after sufficient confirmations have been added to the chain, and even then remains theoretically reversible under certain conditions. This probabilistic finality is perceived by regulators as a contrast to the deterministic and legally recognised finality of traditional settlement systems. In addition, blockchain transactions may remain exposed to risks of chain reorganisations, temporary forks, or consensus attacks (Murr, 2024), further undermining transaction finality and reliability. Additional risks arise from stablecoin designs. Some stablecoin arrangements incorporate issuer or governance-enabled mechanisms, such as asset freezing or blacklisting,[9] that can override the immutability of blockchain records in response to legal orders or internal decisions. This raises concerns about stablecoins' suitability for high-value transactions.

3.3.2 Alternative perspectives

In light of these considerations, UK regulators have so far hesitated to permit large-scale stablecoin operations before ensuring that such instruments can meet the standards of singleness of money and settlement finality. The following section explores alternative perspectives, arguing that these principles can be achieved, or substantially approximated, through sound regulatory design and institutional arrangements.

Alternative perspectives on the singleness of money:

- The nature of singleness and its compatibility with stablecoins:
  - *Singleness is a spectrum, not an absolute standard*. Singleness in practice has always tolerated small, predictable deviations across the different levels of the monetary hierarchy. Commercial bank money, e-money, and cash are not always exchanged at par in every context without friction. Specifically, fees, access costs, and acceptance differences exist. As Bidder, Ezeji-Okoye, et al. (2025) note, singleness is better seen as a "*spectrum*" than as a binary ideal. Regulators should therefore judge stablecoins by whether they fall within the acceptable range of variation already present in the financial system.

[8] "*Stablecoins, while used as the settlement asset for transactions in the crypto world, are not robust and, as currently organised, do not meet the standards we expect of safe money in the financial system. In particular, they fail the basic tests of singleness and settlement finality. They are not money*". See the Bank of England Governor Andrew Bailey's speech highlighting concerns about stablecoins' failure to meet standards of singleness and settlement finality.

[9] For example, Tether (USDT) includes a built-in administrative control that allows the issuer to freeze assets held in specific wallet addresses. This centralised capability has been actively utilised in cooperation with law enforcement agencies to combat illicit activities. Specifically, in July 2025, Tether was publicly acknowledged by US authorities for freezing and reissuing approximately $1.6 million in USDT linked to wallets associated with terrorist financing operations, as detailed in Tether's official announcement here.

– *Singleness is shaped by various factors, including regulation, public infrastructure, and the design of effective monetary and payment mechanisms*. Bidder, Ezeji-Okoye, et al. (2025) note that modern monetary singleness arises from regulatory safeguards, central bank infrastructure, and settlement arrangements, not from the inherent properties of money itself. Braine et al. (2024) similarly argue that the anchors of value and trust in a monetary system (including the singleness of money) are sustained by a combination of regulatory frameworks, prudential safeguards, robust payment system design, and central bank settlement, rather than by reliance on any single monetary instrument such as cash or a CBDC. Wen et al. (2025) further argue that stablecoins embedded within a hybrid monetary ecosystem, where private issuance is fully backed by central bank reserves and integrated into central bank settlement, can prevent fragmentation.[10] These perspectives highlight that singleness is not an inherent property of any specific form of money. It is a system-level outcome shaped by various factors.

– *Well-regulated stablecoins can achieve comparable singleness*. Several jurisdictions are designing stablecoin regimes that aim to ensure par value redemption and robust backing. The MiCA regulation (see §B.2), for example, imposes reserve and redemption requirements intended to preserve singleness for e-money tokens. The Monetary Authority of Singapore (MAS) also believes that well-regulated stablecoins can support the integrity and stability of the monetary system, provided they are fully backed and subject to robust governance and risk management (MAS, 2022). Hong Kong is also developing a licensing regime that mandates full reserve backing and par value redemption (HKMA, 2023). These regulatory frameworks illustrate how well-designed and supervised stablecoins can support monetary stability and achieve a degree of singleness comparable to that of traditional forms of money.

Insight from Tony McLaughlin, Founder of Ubyx.Inc

Tony McLaughlin believes that stablecoins and digital assets will fundamentally reshape bank business models by unlocking new revenue streams, such as redemption fees, FX spreads, and transaction income, and reducing dependence on interest-sensitive earnings. Banks that embrace this shift through infrastructure like Ubyx can improve competitiveness, lower operational friction, and act as gateways to Web3 services, including DeFi, tokenised securities, and digital identity.

He argues that stablecoins, when properly embedded in regulated frameworks with robust redemption mechanisms, do not necessarily pose a threat of deposit flight or systemic risk. Instead, they can function as trusted fiat instruments, enhancing financial stability by increasing redundancy, diversifying payment systems, and reducing counterparty risk. Poorly-regulated stablecoins, however, could amplify volatility. He emphasizes the need for enforceable redemption frameworks.

- Technology and the digital economy support singleness:

  – *Payment diversity can coexist with monetary singleness*. Nowadays, modern economies already accommodate multiple forms of money and payment tools. Consumers use cash, cards, e-money, and mobile wallets for different purposes. This diversity does not threaten singleness, as long as the instruments are interchangeable at par within acceptable limits. Stablecoins simply extend this diversity into new digital contexts. There is no evidence that greater choice in payment methods leads to fragmentation when supported by sound regulation. As BIS notes, CBDCs and private digital money are expected to coexist within a unified monetary framework (Kosse et al., 2022).

  – *Stablecoins can enhance transparency and trust in singleness*. Technological developments enable stablecoins to offer features that enhance confidence in their value. These include on-chain Proof of Reserves (PoR),[11] automated redemption via smart contracts, and open governance processes. Such features offer greater transparency than traditional bank deposits. As noted by Braband (2024), PoR involves continuous attestations and cryptographic proofs that improve visibility into reserve holdings. These are the advantages not available in conventional banking systems. Users can also audit reserve asset composition and track on-chain flows, rather than relying solely on trust in institutions.

[10] Note that Wen et al. (2025) do not explicitly discuss the regulatory concept of "singleness". However, their notion of "uniformity", which describes value and functional equivalence among private stablecoins, CBDCs, and bank deposits in a hybrid system backed by central bank reserves, aligns with the outcomes sought by regulatory frameworks that aim to preserve monetary singleness.

[11] For example, Chainlink provides Proof of Reserve (PoR) services that enable smart contracts and users to verify asset backing in real-time using decentralised oracle networks. See Chainlink's overview on its PoR solution.

Insight from Mark Raynes, Chainlink Labs Global Head of Solutions Architecture, Banking & Capital Markets

Mark Raynes highlights that bringing *Proof of Reserve (PoR)* to contexts like complex financial reserves solves major challenges:

* Large-scale systems require real-time synchronisation of reserve data across on-chain and off-chain environments, which is technically and operationally difficult.
* When reserves span multiple asset types and blockchain networks, maintaining a consistent shared view of reserve state among participants becomes critical and complex.
* For mixed-asset reserves, the focus shifts from tracking individual token value to establishing a reliable net asset value (NAV), usually requiring independent entities (e.g., auditors or fund administrators) to assess and verify market value.

He underscores that third-party attestation of reserve value is crucial to ensure transparency and sustain token holder trust, especially when the reserves are not straightforward or are off-chain.

  - *The digital economy requires a broader understanding of singleness*. Stablecoins play an important role in enabling value transfer in DeFi and cross-chain applications. While the regulatory concept of singleness of money has traditionally focused on interchangeability among domestic instruments, the rise of programmable and cross-border digital money demands a functional expansion of this principle. As Sam Broner at Andreessen Horowitz notes,[12] stablecoins must be integrated into "*a unified monetary system*" where all forms of money are interchangeable at par, regardless of their underlying platforms or issuers. This evolution in practice suggests that the concept of singleness should extend beyond traditional forms of money to encompass new digital contexts.

- The need for balanced regulatory priorities:
  - *Excessive focus on singleness may suppress innovation*. While preserving singleness is important, overly stringent regulation could unintentionally stifle innovation and limit the benefits that stablecoins offer. These include greater competition, improved payment efficiency, and support for new financial technologies. Bidder, Ezeji-Okoye, et al. (2025) caution that while preserving singleness is important, regulatory frameworks should not create unnecessary barriers to entry that could undermine innovation. A balanced approach should aim to enable innovation while maintaining financial stability.

Alternative perspectives on the finality of settlement:

- *Traditional payments are reversible in certain circumstances, yet this is not generally seen as a threat to financial stability*. Traditional payments, such as card transactions, can be reversed in cases of fraud, error, or dispute. This possibility of reversal is well understood and accepted within the traditional financial system (Hayashi et al., 2016). It has not been seen as a source of instability. What matters is that trusted procedures are in place to manage these cases effectively and transparently.
- *The finality of traditional settlement systems is not a natural feature of the payment medium but a product of legal frameworks, infrastructure design, and social mechanisms*. Courts, regulators, and contractual arrangements determine when a transaction is legally irrevocable. Nabilou (2024) emphasises that both traditional payment systems and permissioned Proof-of-Work (PoW) blockchains rely on legal finality, not purely technical or operational measures. Similarly, US law under Article 4A of the Uniform Commercial Code (UCC) makes a payment order final based on acceptance and execution by the receiving bank,[13] reflecting legal discharge of obligations rather than technical irreversibility.
- *Blockchain finality is probabilistic but strong in major networks*. Major chains typically require transactions to be confirmed by several additional blocks before they are treated as final. For instance, a common practice in the Bitcoin network is to wait for an additional six block confirmations (Murr, 2024), after which a transaction is considered effectively irreversible. While it is theoretically possible to reverse a blockchain transaction that meets this condition through a chain organisation or fork, doing so would likely cost far more than any potential gain due to the economic and technical barriers. The risk of such reversals is

[12] See Sam Broner's article outlining how stablecoins can function as money across platforms.
[13] See UCC §4A-209 to §4A-211.

considerably higher in smaller or less decentralised blockchain networks, though this consideration is well-known to issuers and can be disclosed to users.

- *Some blockchains offer deterministic finality, ensuring immediate and irrevocable settlement*. In fact, some blockchain systems offer deterministic finality. This means that once a transaction is confirmed, it is final with mathematical certainty and cannot be reversed, even in theory. For instance, the XRP Ledger achieves finality as soon as a ledger closes, without requiring multiple confirmations (Schwartz et al., 2014). This form of consensus does not rely on probabilistic settlement and thereby provides a level of finality that is arguably comparable to the legally enforced finality found in traditional financial market infrastructures.
- *Regulators could define legal finality for blockchain*. While traditional financial systems determine settlement finality by law and institutional rules, blockchain finality currently lacks a clear legal standard. There is no formal rule that defines how many confirmations make a transaction final for legal or regulatory purposes. Scholars such as Nabilou (2024) argue that legal embedding is essential to provide certainty in blockchain-based settlements. This is a gap that regulation could address. A rule could, for example, define a transaction as final after a specific number of confirmations on a major chain, similar to how Article 4A of the UCC sets conditions for finality in funds transfers. Such clarity would help integrate blockchain payments into the broader financial system without ambiguity.

Overall, the alternative perspectives presented in this section suggest that singleness and finality are not immutable properties of specific instruments, but institutional outcomes shaped by legal, regulatory, and technological frameworks. With well-designed governance, robust redemption mechanisms, and clear legal recognition, stablecoins can align with these principles and complement the UK's monetary architecture.

4 Stablecoins: Broader Landscape and Market Activity

Stablecoins are a key form of tokenised money. They combine the programmability and transferability of DLT-based assets with the relative price stability of fiat currencies such as USD. Some stablecoins exhibit bearer-like features at the technical level, allowing peer-to-peer transfers without intermediaries and making them functionally resemble digital cash. This section outlines major dimensions of the stablecoin market, including its scale, classification, core use cases, ecosystem participants, and lessons from market disruptions.

4.1 Market size and activity

Market capitalisation trends. The total market capitalisation of stablecoins has grown significantly in recent years, reflecting their rising influence in digital finance. As shown in Figure 4, the aggregate stablecoin market capitalisation expanded from $2.27 billion on March 1, 2018 to $286.71 billion on September 1, 2025. Figure 4 also lists the top 10 stablecoins by market capitalisation as of September 2025. It is evident that a few leading stablecoins dominate the market, with the top 10 stablecoins alone accounting for approximately 95% of the total market capitalisation. This highlights the concentration of liquidity among a limited number of issuers. The market is primarily dominated by Tether (USDT) and USD Coin (USDC). These two coins constitute around 83% of the total stablecoin market capitalisation.

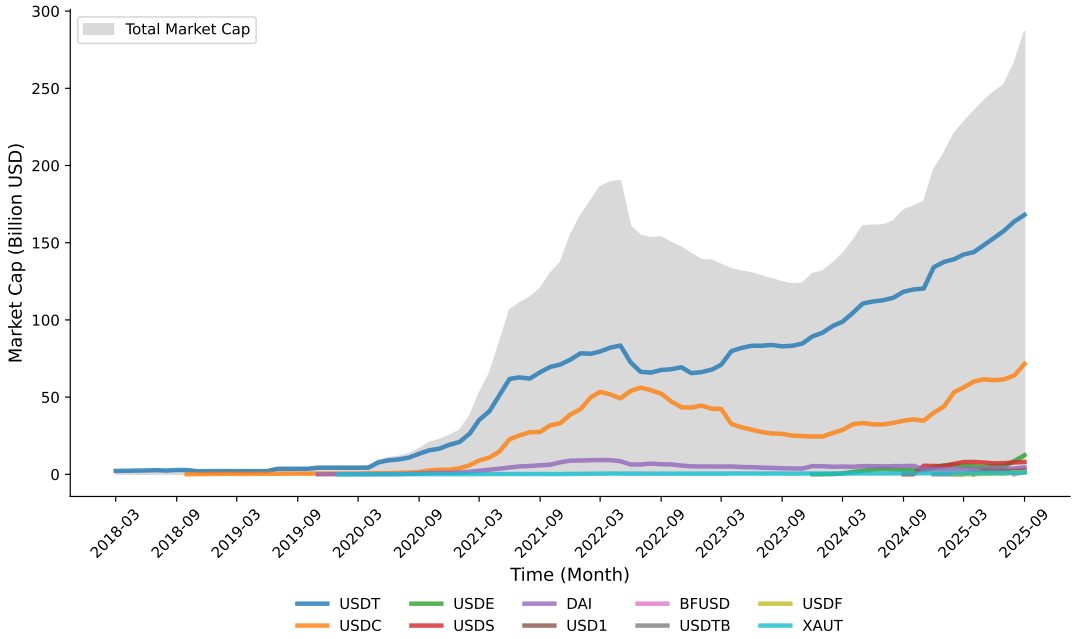


Figure 4: Evolution of stablecoin market capitalisation (in billion USD)

Notes: This figure shows monthly stablecoin market capitalisation, including the total value (grey area) and the individual values of the top 10 stablecoins by trading volume as of September 2025 (colored lines). Data source: CoinGecko.

To complement the static ranking of the top stablecoins in Figure 4, Figure 5 presents the dynamic evolution of stablecoin rankings over time. As shown in Figure 5, USDT and USDC have remained in the top two positions throughout the entire period. This highlights their role as the leading stablecoins in the market. Other stablecoins such as Dai (DAI) have also stayed active. However, their rankings have fluctuated over time. In recent years, emerging stablecoins such as PayPal USD (PYUSD) have started to gain attention. This reflects ongoing evolution and competition within the stablecoin space.

One major event was the May 2022 collapse of the TerraUSD (UST) stablecoin, which is now known as TerraClassicUSD (USTC). Prior to its failure, UST had risen to a high-ranking position due to the fast growth of the Terra ecosystem. However, following its depeg and subsequent collapse (see §4.5.4), it quickly dropped out of the top rankings. Another significant shift occurred with Binance USD (BUSD), which consistently held the third position among stablecoins from 2021 through mid-2023. However, following increased regulatory pressure in the United States, particularly actions taken by the New York Department of Financial Services

(NYDFS)[14] and the Securities and Exchange Commission (SEC)[15] against Paxos and Binance, the issuance of BUSD was halted. As a result, the coin's market capitalisation experienced a significant decline.

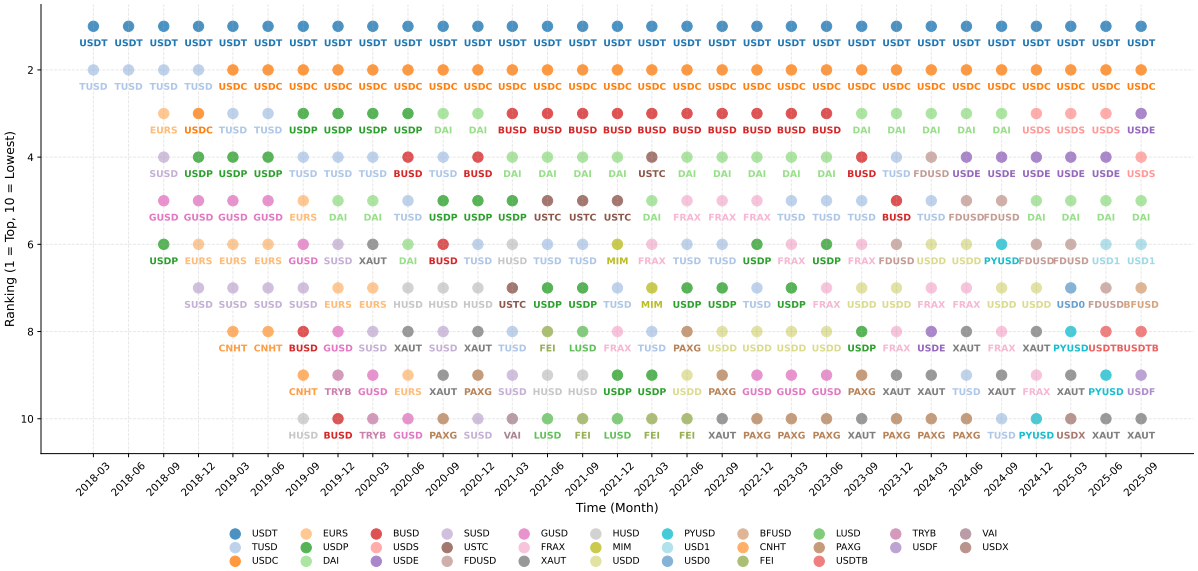


Figure 5: Ranking dynamics of the top 10 stablecoins by market cap

Notes: This figure illustrates the quarterly ranking evolution of the top 10 stablecoins, based on market capitalisation measured at the beginning of each calendar quarter. Data source: CoinGecko.

Trading volume trends. Stablecoins are widely used as trading pairs on centralised and decentralised exchanges. In addition to market capitalisation, trading volume serves as a key indicator of stablecoin usage and liquidity. As illustrated in Figure 6, the total trading volume has grown from $2.40 billion on March 1, 2018 to $67.02 billion on September 1, 2025, with a peak of $143.28 billion on March 1, 2025. Fluctuations often rise in periods of intense market activity or broader stress within the cryptoasset system. In addition, we can see that the concentration of trading activity among the top 10 stablecoins mirrors trends in market capitalisation, where a few of the dominant coins (e.g., USDT and USDC) facilitate the majority of transactions.

4.2 Classifications

Stablecoins are often categorised along three design dimensions: (1) reserve composition, (2) governance, and (3) yield profile.

4.2.1 Reserve composition – what sustains the peg?

It is intuitive to classify stablecoins based on how they maintain the peg: whether they rely on collateral assets, algorithmic supply adjustments, or a mixture of both approaches.

Collateral-backed stablecoins rely on holding specific assets to back their value. Based on the types of reserve assets in their portfolio, stablecoins typically fall into two main categories:[16]

- *Fiat-backed stablecoins* are supported by reserves of highly liquid financial assets, typically including bank deposits, short-term government securities, Treasury bill collateralised overnight repos, and Money Market Fund (MMF) shares. These stablecoins are issued and redeemed via a mint-and-burn mechanism:

[14] See the notice from NYDFS, which states that Paxos was ordered to cease minting BUSD due to unresolved issues related to its oversight of the relationship with Binance.

[15] See the SEC's press release in June 2023, which states that the SEC filed 13 charges against Binance entities and founder Changpeng Zhao. These include operating unregistered exchanges, broker-dealers, and clearing agencies; misrepresenting trading controls and oversight on the Binance.US platform; and the unregistered offer and sale of securities.

[16] A less common type, commodity-backed stablecoins (e.g. gold-backed tokens), represent direct claims on physical commodities rather than fiat currencies.

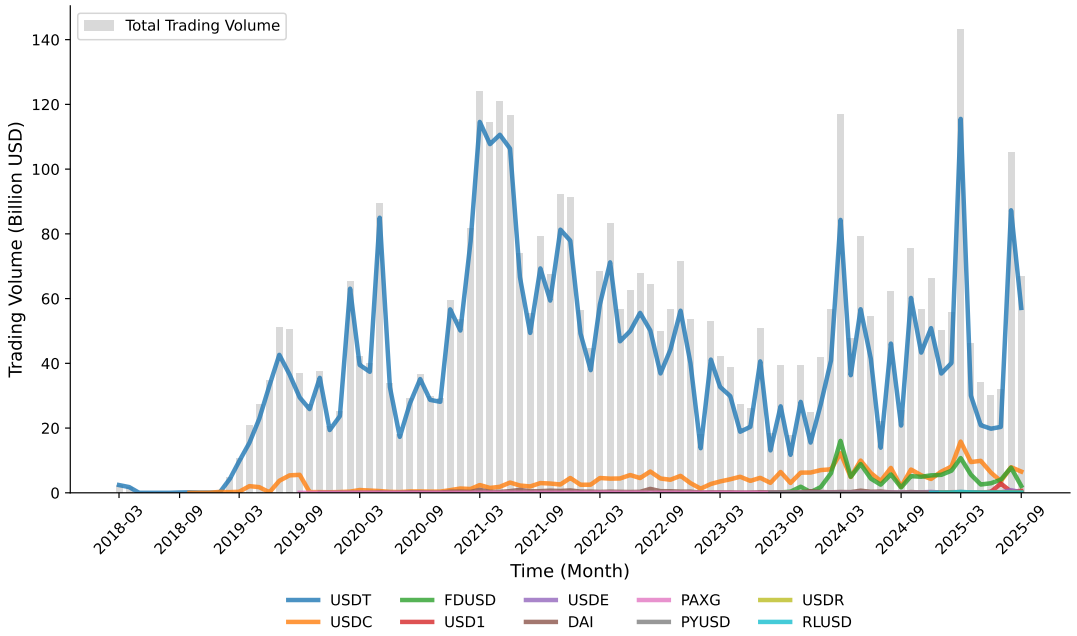


Figure 6: Monthly stablecoin trading volume (in billion USD)

Notes: This figure presents the monthly trading volume of stablecoins, including the aggregate volume (grey bars) and individual trading volumes of the top 10 stablecoins by volume as of September 2025 (colored lines). Data source: CoinGecko.

when users deposit fiat currency, the stablecoin issuer mints new tokens, and when redeemed, tokens are destroyed, thus preserving price stability.[17]

- *Crypto-backed stablecoins*, on the other hand, use cryptocurrencies (like ether) as collateral, which is escrowed on-chain through smart contracts. Due to the inherent volatility of cryptocurrency assets, these stablecoins usually require substantial over-collateralisation. Users deposit eligible assets within the protocol, minting stablecoins in proportion to the collaterisation requirements. To redeem this collateral, users transfer back stablecoins alongside accrued fees, at which point the stablecoin units are burned.

Algorithmic stablecoins rely on automated, on-chain rules and market-driven incentives rather than large reserves of collateral assets.[18] This design approach is capital efficient, enabling smooth supply adjustments to maintain stability without locking up equivalent amounts of assets. However, this efficiency comes with increased risk, as the stability depends heavily on sustained market confidence. They generally adopt the following mechanisms:

- *Rebasing models* adjust the balance of all holders proportionally to realign the stablecoin's market price with a predefined peg (typically $1). If the token trades above the peg, token balances expand; if below, balances contract. A notable example is Ampleforth.[19] While straightforward, the frequent balance changes can confuse users despite the overall value in dollar terms remaining stable.
- *Seigniorage models* use multiple tokens to manage supply fluctuations without directly rebasing user balances. These typically include a stablecoin token aimed at maintaining a peg, alongside "share" or "bond" tokens designed to absorb price volatility. When the stablecoin trades above its peg, the protocol mints additional stablecoins or rewards share tokens, increasing supply and stabilising price. Conversely, when trading below the peg, users are incentivised to burn stablecoins in exchange for bonds or future redemption rights, decreasing supply to restore the peg.

Hybrid models combine elements of both collateralised and algorithmic stablecoin approaches. Following the failures of purely algorithmic models (such as TerraUSD), many stablecoins adopted hybrid designs

[17] Such safe assets avoid the risks discussed in (Chemla and Hennessy, 2014) and (Demarzo, 2019).

[18] Bretton Woods Committee (2025) argue that algorithmic and crypto-backed stablecoins should not be considered true stablecoins, as "they are unlikely to be fit for purpose as reliable payment instruments." See their Table 1 for a taxonomy of non-stablecoin forms of tokenised value.

[19] It is still active, but its popularity and liquidity are much lower than at its peak in 2020.

with partial collateral reserves (e.g., fiat-backed stablecoins like USD Coin or short-term Treasuries) and algorithmically driven supply adjustments. These hybrid models aim to balance the stability offered by asset backing with the flexibility and scalability advantages of algorithmic mechanisms, thereby reducing the "death spiral" risk during periods of market stress.

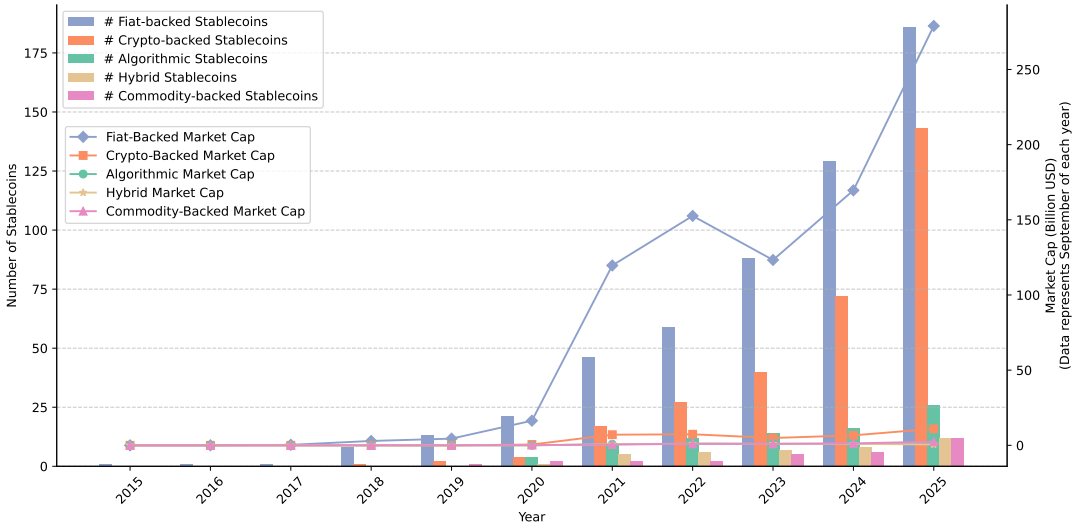


Figure 7: Evolution of different types of stablecoins over time

Notes: This figure shows the number of stablecoins by category (bars, left axis, measured as the total number of active coins each year) and their respective market capitalisations (lines, right axis, recorded in September of each year). Data source: CoinGecko.

Figure 7 shows how these categories have evolved over time. Fiat-backed stablecoins have consistently led the market in terms of both active projects and total capitalisation. In 2015, only one fiat-backed stablecoin existed. By September 2025, the number had grown to 186, with a total market capitalisation exceeding $278 billion. This significant growth underscores their increasing role in trading, payments, and DeFi.

Crypto-backed stablecoins have seen significant growth in recent years, particularly within DeFi applications. Although they remain a smaller segment compared to fiat-backed stablecoins, their growth trajectory suggests increasing interest in decentralised forms of stability. Figure 7 reveals a steady rise in both the count and market capitalisation. Between 2015 and 2025, the number of crypto-backed stablecoins grew from zero to 143, reaching a total market capitalisation of $10.9 billion in September 2025.

Algorithmic stablecoins have exhibited significant volatility in adoption. While their numbers have increased from zero in 2015 to 26 by September 2025, their total market capitalisation has fluctuated. The collapse of UST in May 2022 is an example of the risks associated with algorithmic designs, leading to a sharp decline in confidence and capitalisation for this category. Particularly, after reaching $1.26 billion in January 2022, the market capitalisation of algorithmic stablecoins declined to $0.89 billion in September 2025, indicating a loss of confidence in this category following significant failures.

Hybrid stablecoins, which combine algorithmic and asset-backed designs, made up over half of algorithmic stablecoins as of January 2025. Among the 26 algorithmic stablecoins tracked at that time, 12 followed a hybrid model. This shows that some developers prefer hybrid designs over purely algorithmic ones. The combination of partial collateral and algorithmic adjustment is likely seen as a way to improve stability. However, hybrid stablecoins still represent a relatively small share of the total market capitalisation, which is approximately $0.52 billion as of September 2025. This indicates that adoption remains limited. Possible reasons include the added complexity of hybrid models and uncertainty about their performance during market stress.

Commodity-backed stablecoins represent a niche segment, with relatively few active projects but a non-negligible capitalisation. As of September 2025, their total market capitalisation stands at $2.39 billion. These tokens are typically backed by physical assets such as gold, offering investors exposure to real-world commodities through digital instruments. Despite their appeal as safe-haven assets, adoption has remained limited. This may be due to high custody costs, limited liquidity, and weak integration with DeFi.

Insight from Adrian Albert Koch, CEO at DeltaPay

Adrian Albert Koch strongly supports differentiated regulation for various classes of stablecoins. He emphasizes that a uniform approach is inappropriate given their distinct risk profiles:

- ***Collateral-backed stablecoins***: These raise complex issues related to asset valuation, liquidity, and auditability.
- ***Fiat-backed stablecoins***: These are relatively simple and should be regulated like e-money issuers or custodial wallets.
- ***Yield-bearing stablecoins***: These carry securities-like risks and thus require stricter oversight, clear disclosures, and investor protection mechanisms.

He argues that regulators, particularly in developing countries, should initially legalise only a narrow set of digital assets, such as fiat-backed stablecoins and major cryptocurrencies (e.g., BTC and ETH), focusing on building a strong legal foundation first. Future regulation should evolve based on public adoption and observed risks.

4.2.2 Governance – who controls the issuance?

If reserve composition defines *what* backs a stablecoin; governance determines *who* controls the issuance, reserve management, and protocol parameters. In general, stablecoin governance models can be broadly classified into two categories:[20]

Centralised stablecoins are governed by single corporate entities responsible for managing reserves, regulatory compliance, and token issuance. These issuers hold reserves off-chain with traditional financial institutions, operating within local regulatory frameworks. While efficient, this structure can pose significant commitment and transparency risks.

Decentralised stablecoins, in contrast, leverage blockchain-based governance structures. Decisions on issuance, reserve management, and protocol rules are made collectively via token-holder voting[21] and executed through transparent smart contracts. This structure reduces dependence on centralised intermediaries, improving resilience and user trust, but often at the expense of scalability or capital efficiency.

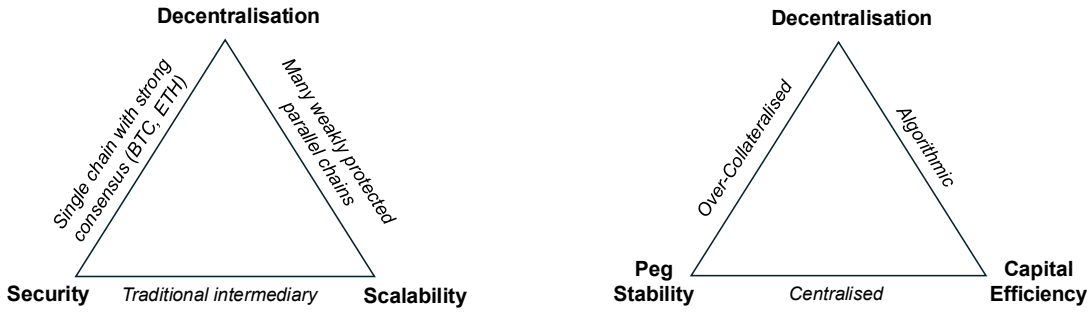
Decentralisation is particularly attractive because it mitigates commitment issues inherent to centralised governance models. As shown by Sockin et al. (2023), delegating control to users through tokenisation acts as a credible commitment mechanism that constrains platform discretion and mitigates future opportunism, including pricing exploitation, data misuse, or excessive issuance. In the specific context of stablecoins, d'Avernas et al. (2022) theoretically demonstrate that a monopolistic issuer faces strong incentives to overissue tokens during demand shocks, leading to subsequent devaluation. This is similar to historical central banking crises and reflects the classic "Coase Conjecture" in durable goods markets. Delegating issuance decisions to a decentralised community helps alleviate this problem by limiting unilateral discretion, thereby enhancing peg credibility and long-term stability.

However, achieving decentralisation is subject to trade-offs. Auer, Monnet, et al. (2025), extending Buterin (2021)'s blockchain scalability trilemma, highlight conflicts between decentralisation, security, and scalability (Figure 8a). No blockchain has so far been able to optimise all three dimensions simultaneously.

Stablecoins similarly face a parallel "stablecoin trilemma," balancing peg stability, decentralisation, and capital efficiency (Figure 8b). Fiat-backed stablecoins provide strong peg stability and capital efficiency but sacrifice decentralisation. Crypto-backed stablecoins preserve decentralisation but restrict arbitrage capacity, leaving their pegs vulnerable to speculative dynamics. Incorporating stable collateral does improve peg stability but re-introduces elements of centralisation (Kozhan et al., 2021). Algorithmic stablecoins achieve decentralisation and capital efficiency but risk losing peg stability under confidence shocks. Ultimately, stablecoin design involves dealing with these inherent trade-offs.

[20] However, decentralisation is better understood as a spectrum rather than a binary classification. Various dimensions determine the degree of actual decentralisation: who controls the ability to upgrade code, who owns governance tokens, and who holds influence within the community. Even without a corporate entity issuing tokens, power may still concentrate in the hands of a small, influential group (Sun et al., 2024; Eisermann et al., 2025).

[21] In practice, decentralised governance can still be concentrated in practice due to token distribution or social dynamics (Dotan et al., 2023).



(a) Scalability trilemma

(b) Stablecoin trilemma

Figure 8: Conceptual trilemmas: blockchains and stablecoins

Notes: Panel (a) shows Buterin's "scalability trilemma", adapted from Buterin (2021) and Auer, Monnet, et al. (2025). Panel (b) depicts the stablecoin trilemma, adapted from the VoxEU column by Ganesh Viswanath-Natraj and Amit Chaudhary.

Insight from Professor Deeph Chana, Imperial Business School

Prof Deeph Chana thinks that the rise of stablecoins has moved the conversation beyond whether crypto will endure, to how digital assets are reshaping global finance. Stablecoins now serve as gateways between traditional finance and decentralised finance (DeFi), ushering in a complex, hybrid architecture. This introduces novel cybersecurity risks across several dimensions.

From a technical perspective, a significant class of security risks concerns the compromise of smart contracts and the manipulation of the oracle services that enable their interaction with off-chain resources and data. For algorithmically collateralised stablecoins, these are the functions that deliver the very stability and pegging that such tokens are intended to achieve. Undiscovered structural flaws and bugs within smart contracts are a reality and exploiting such weaknesses can allow attackers to either mint tokens illegitimately or drain stablecoin collateral funds. A few years ago, incidents such as these had a limited impact on the wider economy. However, as stablecoins integrate more deeply into mainstream finance, such disruptions could trigger wider systemic effects.

Crucially, the "recentralisation" of DeFi, through centralised issuers like Circle and Tether, reintroduces trust dependencies and governance risks, exposing systems to insider threats and administrative failures. The emerging CeDeFi (Centralised-Decentralised Finance) landscape is fluid, complex, and difficult to regulate or secure in traditional ways. Addressing these challenges requires a coordinated cybersecurity strategy that spans code auditing, market design, and user governance. But bridging gaps between regulators, technologists, and users remains difficult. In this context, generative AI may become both a key enabler of secure, adaptive financial systems, and at the same time, the most potent threat that these systems must confront.

4.2.3 Yield-bearing versus non-yield-bearing

Stablecoins can also be classified by whether they distribute yield to holders.

Non-yield-bearing stablecoins track fiat value without passing on income, making them serve primarily as media of exchange or as collateral in DeFi protocols. These tokens are central to liquidity provision in both centralised and decentralised markets, and dominate in terms of user adoption and regulatory focus.

Yield-bearing stablecoins, by contrast, distribute income generated from reserves or protocol revenues to token holders. This introduces investment-like characteristics, which raises regulatory considerations around securities laws and investor protection.

Although non-yield-bearing stablecoins still represent the majority of the market, their yield-bearing counterparts have grow rapidly in recent years. As of May 2025, the total market capitalisation of yield-bearing stablecoins has exceeded $11 billion, up from just $1.5 billion in early 2024. This corresponds to an increase from roughly 1% to 4.5% of the overall stablecoin market.[22] Notable examples include Ondo USDY and Sky

[22] See here for further information.

Dollar (USDS). This growing segment has begun to attract regulatory scrutiny. For instance, the EU's MiCA regulation explicitly prohibits stablecoin issuers from offering interest to holders, reflecting concerns about blurring the line between payments and investments. As yield-bearing stablecoins continue to grow, they could have significant implications for monetary transmission, DeFi protocol design, and broader financial system, particularly through disintermediating bank deposits and reshaping the allocation of capital on-chain.

Insight from Lewis Gudgeon, Co-founder of Gyroscope

Lewis Gudgeon notes that yield is influential, though not central, in the stablecoin ecosystem. While yield can incentivize early adoption, the largest stablecoins by market capitalisation, such as USDT, do not offer native yield. Instead, factors such as integration with centralised exchanges and use as a means of payment have driven their adoption.

Gudgeon further notes that yield generation generally entails additional risk. For example, stablecoins like Ethena's USDe offer higher yields by employing derivatives strategies, which introduce funding risk and other complexities. Typically, the level of yield corresponds to the level of risk assumed, with lower-risk yields stemming from exposure to high quality assets such as Treasury bills.

4.3 Main use cases

Stablecoins are important to the digital asset ecosystem due to their price stability and blockchain-native design. This section outlines four key use cases: as a means of payment, a store of value, an investment vehicle in DeFi applications, and an emerging component of banking infrastructure.

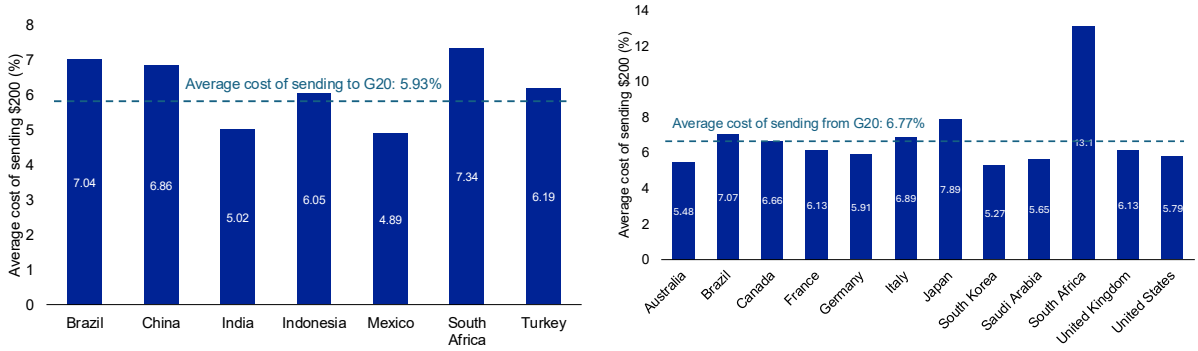
Insight from Professor Lin William Cong, Cornell SC Johnson College of Business

Prof Cong identifies a range of evolving stablecoins use cases:

- ***Payments and Remittances:*** This remains a primary driver of adoption. Faster, cheaper international transfers, peer-to-peer payments, and even merchant payments for goods and services.
- ***DeFi Infrastructure:*** Stablecoins are the backbone of DeFi, enabling lending, borrowing, yield farming, and decentralised exchanges.
- ***Store of Value (Short-Term):*** For crypto traders and investors, stablecoins offer a "safe haven" during market volatility, allowing them to exit speculative positions without fully cashing out to fiat.
- ***Cross-Border Trade Finance:*** Stablecoins facilitate payments and settlements in international trade with greater speed and transparency.
- ***Micro-transactions and Micropayments:*** Their low transaction costs make them ideal for small, frequent payments in emerging digital economies.

In major financial centres, stablecoin applications are likely to centre around **institutional-grade use cases**, leveraging the regulatory clarity and infrastructure that are emerging:

- ***Interbank Settlements:*** Streamlining wholesale payments and settlements between financial institutions, potentially replacing or complementing current real-time gross settlement (RTGS) systems.
- ***Tokenised Securities and Funds:*** Stablecoins will be crucial for the settlement leg of trading tokenised bonds, equities, and funds.
- ***Collateral Management:*** Using stablecoins as efficient, instantly transferable collateral in various financial transactions, reducing counterparty risk and capital lock-up.
- ***Derivatives and Structured Products:*** Developing new, programmable financial products that leverage stablecoins for margining, collateral, and payout mechanisms.
- ***Foreign Exchange (FX) Markets:*** Facilitating more efficient and transparent FX transactions, potentially leading to lower spreads and faster settlement.
- ***Trade Finance:*** Enhancing the speed and transparency of financial flows, from letters of credit to supply chain financing.



(a) Remittance to countries

(b) Remittance from countries

Figure 9: Average cost of remittance services by country

Notes: These bar charts show average remittance costs in Q2 2024 (as a percentage of $200 sent) by countries and regions based on data from World Bank (2024). Panel (a) shows costs to selected countries, and panel (b) shows costs from selected countries. Dashed horizontal lines indicate global averages (e.g., 6.77% for sending from G20 and 5.93% for sending to G20).

4.3.1 Means of payment

Stablecoins were initially developed to facilitate crypto trading by allowing users to transfer funds quickly without exposure to the volatility of native cryptoassets. Today, their use has expanded as a fast, low-cost alternative to traditional means of payment. Because settlement occurs on blockchain networks, stablecoin-based transactions can remove multiple steps across intermediaries, shortening cross-border settlement windows and, in some cases, reducing fees.[23] Their programmability, cross-border transfer capability, and interoperability with both crypto-native platforms and existing payment systems such as Visa and Mastercard have made them increasingly popular for both consumer and business payments. This section discusses cross-border remittances, business-to-business (B2B) transactions, and real-time treasury management.

Insight from Tony McLaughlin, Founder of Ubyx Inc.

Tony McLaughlin believes that the most significant use cases for tokens and stablecoins will be their evolution into general-purpose digital cash, transcending their current crypto-native niche. As stablecoins achieve universal redemption at par value, they will become the standard for B2B, B2C, and P2P payments, dramatically simplifying cross-border transactions and international liquidity management. Their recognition as cash equivalents under accounting standards (IAS7) will unlock widespread corporate adoption, influencing global financial flows. Financial institutions will see stablecoins as a profitable, secure, and compliant revenue channel, with clear incentives from stable transaction and FX fees, fundamentally reshaping financial services.

- *Cross-border Remittances.* Stablecoins are valuable for cross-border transfers, where remittance costs remain high and transactions takes days to settle. For instance, migrant workers can send funds home in stablecoins, and recipients can convert them to local currency or spend directly on supported platforms. In countries with limited banking infrastructure or costly remittance corridors, stablecoins offer a more accessible and efficient solution. Recent empirical work by Auer, Lewrick, et al. (2025) supports this, finding that stablecoin flows are higher in corridors where remittance costs through traditional intermediaries remain elevated, particularly in the case of USDT. Figure 9 shows average costs of sending remittances to and from several G20 countries. Although competition and new technology have gradually lowered remittance fees over time, the global average cost of sending $200 still remained high at 6.65% in Q2 2024 (World Bank, 2024),[24] which translates to around $60 billion in annual remittance costs.[25]

  Figure 10 illustrates the average costs of sending $200 by different payment instruments, including bank

[23] For individuals, wallet-to-wallet stablecoin transfers often cost only the network fee, while cash pick-up via money transfer operator like MoneyGram costs about 2% on a $200 transfer. For merchants, payment processors like Stripe price stablecoin acceptance at 1.5% which is cheaper than UK cards at all typical basket sizes, and Stripe adds 2% FX fee if currency conversion is needed. Thus, stablecoin acceptance is typically cheaper if funds are kept in USD, but can be costlier than domestic UK cards when converted to GBP.

[24] This marks an increase from 6.35% in Q1 2024. In some corridors, such as Brazil, Italy, and Japan, fees are even higher.

[25] According to the World Bank, remittance flows to low- and middle-income countries are expected to reach $685 billion in 2024, plus additional flows to high-income countries, bringing total remittances to around $905 billion.

account, cash, mobile money, credit/debit card, based on World Bank remittance prices worldwide data. By contrast, the average cost of stablecoin remittances through a traditional intermediary ranges from 0.5% to 3.0%. For instance, MoneyGram began allowing users to send and receive the stablecoin USDC on the Stellar blockchain in late 2021, with the option to convert to local currencies at participating locations. For typical transfers of $200-$300, the effective fee is roughly 1.7-2.0%.[26]

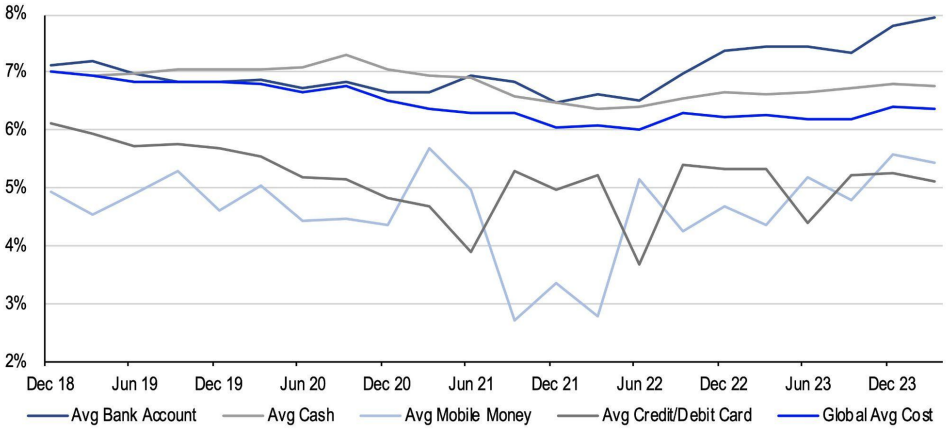


Figure 10: Average cost of remittance services by funding method

Notes: This figure shows the average cost of sending $200 in cross-border remittances, expressed as a percentage of the transfer amount, broken down by funding instrument. It is adapted from Coinbase's Stablecoins and the New Payments Landscape, which draws on data from the World Bank Remittance Prices Worldwide and Bloomberg.

- *B2B Transactions.* Visa launched a pilot with Crypto.com in March 2021 to settle transactions in USDC on Ethereum,[27] which demonstrates that near-real-time stablecoin settlement can serve as an alternative to traditional wire transfers. Visa expanded this initiative in 2023 by adding Solana and enabling automated USDC settlement to merchant acquirers such as Worldpay and Nuvei.[28] Mastercard followed in 2025 with end-to-end capabilities that allow merchants to receive settlement in stablecoins such as USDC rather than fiat.[29] Payment service providers like Stripe reintroduced "Pay with crypto" so that USDC payments can settle to a merchant's Stripe balance and launched stablecoin financial accounts to hold and move these balances recently.[30]

Insight from Arnaud Porchet, Goldman Sachs

Arnaud Porchet highlights two key emerging use cases for stablecoins: (1) cross-border payments, where stablecoins enable near-instant global transfers at significantly lower cost; and (2) global 24/7 trading and settlement of securities and funds with tokens. While some applications already exist or are in development, including Goldman Sachs' ongoing work on fund tokenisation, he notes that applications are still limited.

He also emphasises that stablecoins have the potential to significantly reduce the number of intermediaries and lower transaction costs for individuals and businesses. These efficiencies could support broader economic growth.

Building on this potential, large financial institutions such as Goldman Sachs are actively exploring a wide range of digital assets applications, from market making and derivatives to improvements in operational efficiency, which highlights the strategic importance of the sector across business lines. Although the long-term impact is uncertain, current momentum in the US suggests that stablecoins and tokenised assets could enable a faster, cheaper, and more automated banking model, reshaping the future of financial intermediation.

- *Real-Time Treasury Management.* Stablecoins are increasingly used by businesses and financial institu-

[26] Based on MoneyGram's fee structure for USDC transfers through the Beans app, as shown on their website.
[27] See here for further information.
[28] See here for further information.
[29] See here for further information.
[30] See here for more information.

tions to streamline intraday liquidity and reduce multi-day settlement delays typical of cross-border bank wires. By holding fiat-backed stablecoins such as USDC, firms can move funds globally in seconds and reduce the need to pre-fund accounts across multiple jurisdictions. Large banks have issued their own stablecoins like JP Morgan's JPM Coin[31] to enable near-instant transfers among corporate clients.

4.3.2 Store of value

In countries experiencing high inflation or currency instability, stablecoins are increasingly used as a digital alternative to fiat currency. By providing a dollar-pegged asset, they allow users to preserve value, avoid volatile local currencies, and in some cases, circumvent capital controls. This pattern is especially pronounced in Latin America, which ranks fifth globally by cryptocurrency transaction value and is the second fastest growing region in 2024. Much of this growth has been driven by rising adoption in Argentina, Brazil, Mexico, and Venezuela (Chainalysis, 2024). Among them, Argentina stands out; with its long history of inflation and currency instability, it is no surprise to see that its stablecoin market is the largest in the region. Figure 11 illustrates Argentina's persistently high inflation rates as measured by the GDP deflator. This chronic inflation has eroded confidence in the peso and increased demand for dollar-pegged stablecoins as both a unit of account and a store of value. Figure 12 shows that monthly stablecoin trading volume on Bitso, one of the largest Latin American crypto exchanges, has grown steadily in parallel with the peso's depreciation.

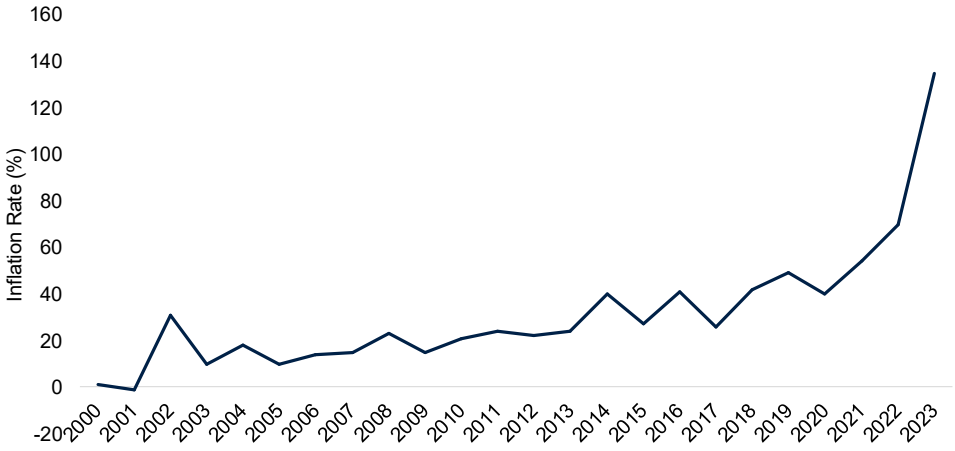


Figure 11: Inflation, GDP deflator in Argentina (annual %)

Notes: This figure presents the evolution of annual percentage change in the GDP deflator in Argentina. Data source: World Bank national accounts.

4.3.3 Trading and DeFi investment

Stablecoins play a vital role in the crypto asset ecosystem by serving as a stable medium of exchange for trading and investment activities on the blockchain. According to daily volume data from CoinGecko, stablecoins account for roughly 50% of the turnover among the top 10 most-traded cryptocurrencies, with Tether (USDT) almost always ranking first.

In DeFi, stablecoins are central to lending and borrowing protocols such as Aave and Compound. Users often deposit volatile assets like ETH or WBTC as collateral to borrow stablecoins (e.g., USDC, DAI). This enables them to gain leveraged exposure without selling their holdings. This strategy is appealing because the borrowed amount is fixed in dollar terms while the underlying collateral may appreciate in value. Additionally, borrowing stablecoins allows users to access on-chain dollar liquidity for practical purposes such as covering expenses, arbitrage across exchanges, or participating in yield farming without exiting their crypto positions. Figure 13 plots the evolution of total value locked (TVL) in DeFi and the aggregate market cap of stablecoins.

[31] It is now rebranded as Kinexys Digital Payments.

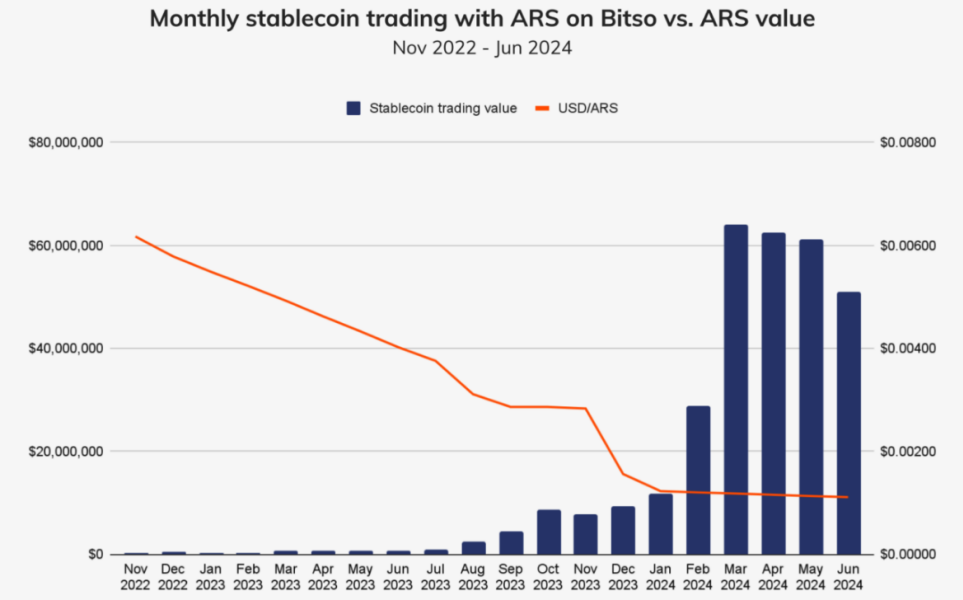


Figure 12: Monthly stablecoin trading with ARS depreciation on Bitso

Notes: This figure is adapted from Chainalysis's report on Latin America's Search for Economic Stability: The Rise of Stablecoins Amid Volatility. The bar chart (left axis) shows the monthly stablecoin trading volume (in USD) against the Argentine peso (ARS) on the Bitso exchange from November 2022 to June 2024. The orange line (right axis) plots the ARS/USD exchange rate over the same period.

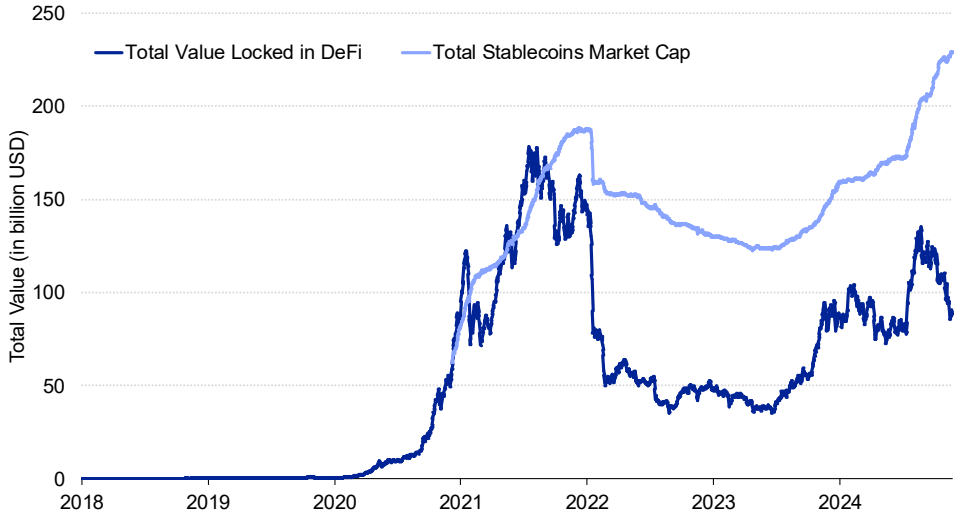


Figure 13: Evolution of total value locked in DeFi and stablecoin market cap

Notes: This figure plots the time series of total value locked (TVL) in DeFi (dark blue line) and the total stablecoin market capitalisation (light blue line), both measured in USD billions. Data cover period from 2018 to 2024 and are sourced from DeFiLlama.

Moreover, stablecoins have become a standard means of settlement on decentralised exchanges (DEXs), which allows traders to quickly enter or exit crypto positions without the delays of traditional banking. Platforms like Uniswap and Curve frequently pair volatile assets (ETH, WBTC, etc.) with stablecoins (e.g., USDT, USDC) to mitigate price swings and facilitate more consistent trading.

4.3.4 Banking

One may expect digital assets and more specifically stablecoins to be integrated into traditional banking services. In many banks, users can now already seamlessly buy and sell tokens, stablecoins and other currencies and easily move their money across fiat and digital currencies. These can be traditional banks

or former payment processors turned into new banks such as Revolut, as well as Stripe, which now offers a stablecoin financial account which grants users dollar access, enabling the sending and receipt of funds to over 100 countries in both US dollars and stablecoins.

Insight from Professor Christine Parlour, Berkeley Haas

Prof Parlour views stablecoins as both a competitive threat to traditional payment rails and a functional analogue to demand deposits or inside money. At scale, they could command significant market share by offering more efficient cross-border payments. The design of their peg – whether reputation-based like bank deposits or asset-backed like MMFs – must be tailored to their use cases and regulatory frameworks.

4.4 Key players

4.4.1 Issuers

Stablecoin issuers are the entities responsible for creating and redeeming tokens, and choosing the key design features discussed in §4.2 – reserve composition, governance structure, and yield. These issuers vary widely in form, ranging from corporations to decentralised autonomous protocols and algorithmic platforms.

At one end of the spectrum are centralised issuers[32] such as Tether, Circle, and Paxos. These platforms operate under traditional corporate structures, typically holding fiat reserves in bank accounts or investing in short-term government securities. For example, Paxos has issued several fiat-backed stablecoins, including Pax Dollar (USDP), Binance USD (BUSD),[33] PayPal USD (PYUSD), and new products like Global Dollar (USDG) launched for Asia-Pacific compliance and Lift Dollar (USDL) targeting yield-bearing functionalities. While subject to varying degrees of regulatory oversight, these issuers retain discretionary control over reserve management and redemption processes.

By contrast, decentralised issuers such as MakerDAO[34] and Liquity rely on smart contracts to automate issuance, redemption, and collateral management. Users mint stablecoins by locking crypto assets and are subject to protocol-defined over-collateralisation ratios and liquidation rules.

In practice, many stablecoins issuers fall somewhere in between. For example, Frax has historically used a partially algorithmic, partially collateralised model, with the issuance process governed by a DAO but involving centralised custodial components. Other decentralised stablecoins increasingly use tokenised real-world assets (e.g., USDC or tokenised T-bills) as collateral (see Figure 14 for example), introducing new forms of counterparty and regulatory risk.

Across these categories, most stablecoin issuers generate revenue by investing reserves in interest-bearing assets while paying no interest to token holders. This allows them to earn the yield spread which is effectively a form of seigniorage. For instance, Tether reportedly made over $13 billion in net income in 2024, and Circle earned $1.68 billion in total revenue, 99% of which came from interest income on reserves backing USDC.[35] This model, however, creates potential conflicts of interest: issuers face incentives to pursue higher returns by allocating reserves to riskier or less transparent assets, potentially compromising liquidity or redemption reliability.

Figure 15 illustrates how reserve strategies have evolved for Tether and Circle. Panel (a) shows that Tether previously allocated substantial portions of its reserves to commercial paper (CP) and certificates of deposit (CD), which are fully phased out by October 2022, and currently still holds gold and Bitcoin. Panel (b) documents Circle's transition to a more conservative profile: it eliminated riskier holdings including corporate bond and CP and holds around 80% of USDC reserves in short-term US Treasuries via the SEC-registered Circle Reserve Fund with the remainder held as cash at BNY Mellon for daily redemptions.

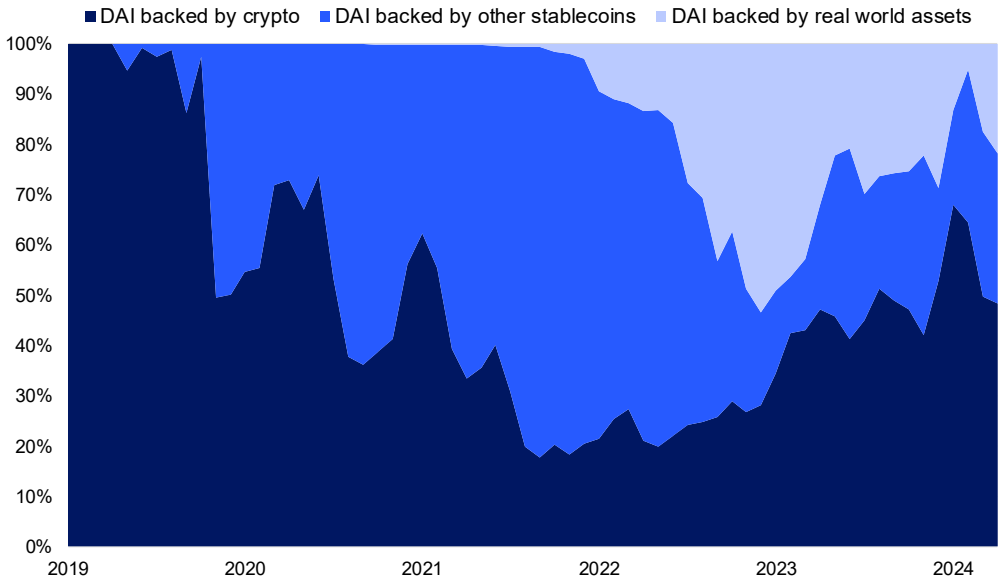
Although stablecoins are widely used by retail users, few individuals interact directly with the issuers (Lyons et al., 2023; Watsky et al., 2024). In practice, issuance and redemption of most fiat-backed stablecoins occur through a limited set of authorised participants (APs). They are typically large institutions such as

[32] They are generally fiat-backed stablecoin issuers.

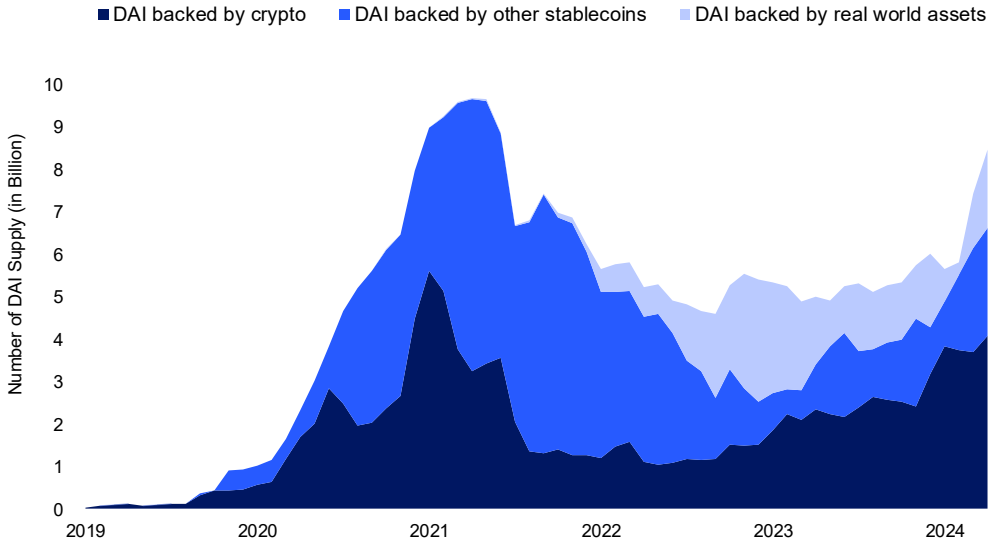
[33] It is no longer minted as of 2023 after the NYDFS order, but still exists in circulation

[34] It is rebranded as SKY.

[35] See PYMNTS' report on Tether's 2024 profits, and their coverage of Circle's revenue and IPO ambitions. Circle has since gone public.



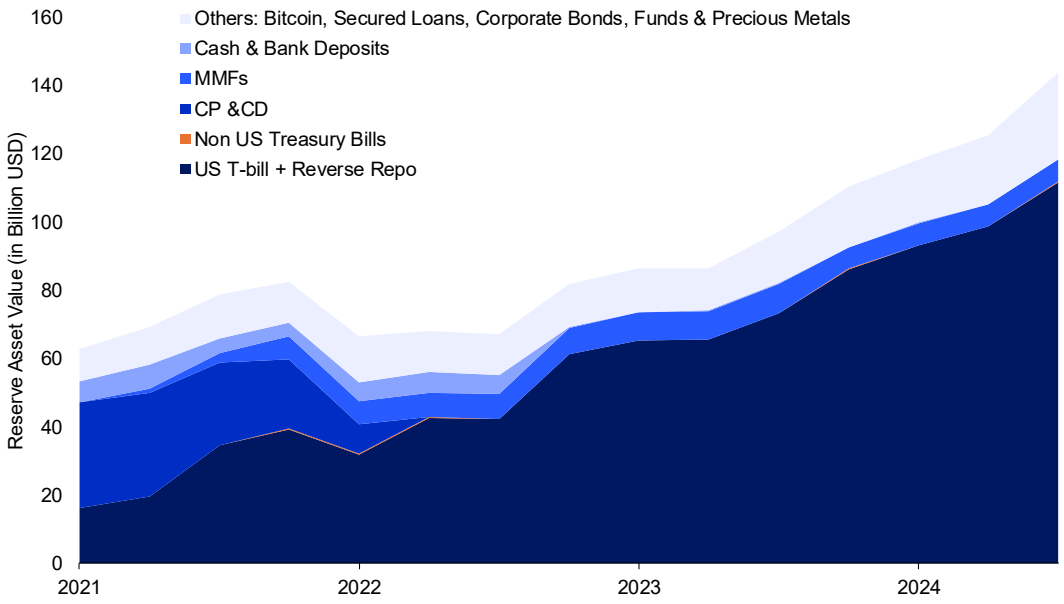
(a) Share by backing type



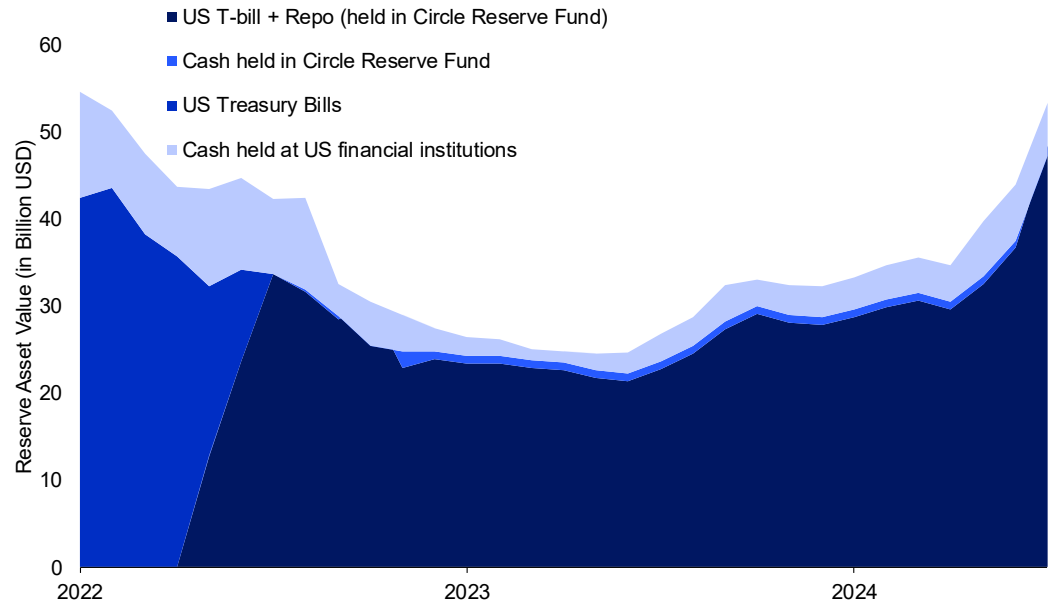
(b) Volume by backing type

Figure 14: Monthly collateral assets composition of DAI supply

Notes: This figure shows the monthly composition of collateral assets backing the total DAI supply (rather than the total value locked in MakerDAO vaults) from November 2019 to February 2025. Three collateral categories are shown: cryptocurrency, fiat-backed stablecoins, and real-world assets (RWA). Panel (a) displays each category's percentage share of the total DAI supply, while Panel (b) shows the absolute DAI supply contributed by each category. Data are from MakerBurn.



(a) Tether USDT



(b) Circle USD Coin

Figure 15: Evolution of reserve assets composition

Notes: Panel (a) shows the composition of Tether's quarterly reserve assets from June 2021 to December 2024. Source: Tether independent attestation reports, available here. Panel (b) shows the monthly reserve composition of USD Coin from July 2022 to January 2025. Data are from Circle's monthly reserve reports, available here.

market makers, OTC desks, and centralised exchanges. These APs deposit fiat with the issuer to mint new stablecoins or redeem tokens for fiat, often under undisclosed contractual terms. This two-tier structure resembles traditional ETF markets or money market funds, where primary market access is restricted, and secondary market trading determines liquidity and price.

4.4.2 Exchanges

Exchanges are the primary venues for trading crypto assets including stablecoins, and play a central role in liquidity provision, price discovery, and the transmission of shocks across markets. Broadly, they fall into two categories: centralised exchanges (CEXs) and decentralised exchanges (DEXs).

Stablecoins are actively traded in both types of exchanges. Most CEXs such as Binance use traditional limit order books where buyers and sellers trade with each other. Trading pairs like BTC/USDT and ETH/USDC dominate daily trading volumes, which reflects the important role played by stablecoins in CEXs trading activity. In contrast, DEXs rely on automated market makers (AMMs) where users trade against on-chain liquidity pools rather than directly with one another. On platforms like Uniswap or Curve, stablecoins form the deepest liquidity pools to facilitate efficient trading. The convertibility of stablecoins thus depends both on these exchanges and on access to primary issuance or redemption channels.

Even though all tokens are fungible, centralised exchanges remain fragmented. Junyi Hu et al. (2025) show that on-chain arbitrageurs link a crowd of peripheral venues to one or two central hubs (Binance and Coinbase), forming a star-shaped network. Trading frictions like withdrawal fees and AML/KYC requirements are captured by a transportation cost parameter and prevent full price convergence across exchanges. When the hub lists a token, peripheral price dispersion narrows with increasing arbitrage volumes. Barbon et al. (2024) find that DEX price efficiency is weaker because gas-driven arbitrage bounds make small trades unprofitable, whereas for larger trades total execution costs can be comparable to those on CEXs.

This fragmentation is not necessarily inefficient. Because customers face real frictions in moving fiat or satisfying regulatory requirements, they stay "captive" to their local CEX. Arbitrageurs endogenously decide which exchange becomes the hub, and a stable core-periphery equilibrium emerges in which many smaller platforms coexist with the large hubs, even though the underlying tokens are perfectly fungible.

Recent developments also point to a growing convergence of features: some DEXs (e.g., dYdX, GMX) include off-chain order books or oracle-based pricing, while some CEXs begin adding on-chain components for transparency or liquidity creation.

4.4.3 On-chain protocols

Beyond exchanges, a wide range of on-chain protocols define how stablecoins are used and priced across the DeFi ecosystem. These include lending markets, yield aggregators, collateralised asset vaults, and AMMs. Together, they constitute the on-chain infrastructure through which stablecoins circulate, influence their market value, and control risks associated with their usage. Specifically, protocols govern how stablecoins are used (e.g., as collateral or liquidity), how peg deviations are detected and corrected (e.g., through liquidity pool ratios or oracle pricing), and how liquidation or borrowing constraints are enforced.

Importantly, the relationship between protocols and issuers varies. In decentralised systems such as MakerDAO and Liquity, the protocol itself acts as the issuer: issuance, collateralisation, and liquidation are governed by smart contracts and community voting. In contrast, centralised stablecoins like USDC or USDT are issued off-chain but widely integrated into on-chain protocol as collateral in lending markets, supplied to AMM pools, or integrated into yield strategies. This creates a separation between off-chain issuance and on-chain usage, with the latter governed by different agents and mechanisms.

Taken together, on-chain protocols are not merely users of stablecoins; they actively shape stablecoin dynamics under normal and stress conditions. Their design, governance structures, and technical infrastructure play a crucial role in shaping the systemic resilience of stablecoins.

[35] AMMs replace traditional order books with deterministic pricing functions (e.g., the constant product formula $x \cdot y = k$ used by Uniswap) that adjust prices based on relative token balances in a liquidity pool. Trades are executed against these pools, and liquidity providers (LPs) earn fees in return for supplying capital. This design enables continuous liquidity and permissionless trading, but exposes LPs to impermanent loss and relies on arbitrage to maintain price alignment with external markets.

4.4.4 Wallet providers and custodians

Wallet providers and custodians form another critical layer in the stablecoin ecosystem, acting as the main interface through which users access, store, and transact digital assets. While their functions often overlap in practice, it is useful to distinguish between the two: wallet providers offer the user-facing tools that enable interaction with blockchains and stablecoins, while custodians are entities that hold and safeguard users' digital assets, often serving institutional clients and high-volume platforms.

Wallets range from non-custodial to custodial. Non-custodial wallets, such as MetaMask, Phantom, or Ledger, allow users to retain full control over their private keys and assets. These are essential for interacting directly with DeFi protocols. However, they expose users to self-management risks such as key loss, phishing attacks, or human error. On the other hand, custodial wallets, typically offered by CEXs like Coinbase or Binance, abstract away key management, providing a smoother user experience but centralising control and introducing single points of failure.

Wallet providers increasingly serve as compliance gateways. Many custodial wallets now incorporate KYC checks, and some stablecoins (e.g., USDC, TUSD) feature issuer-controlled smart contracts with blacklist and freeze functions. These enforcement mechanisms are only effective if users interact via compliant wallets. Emerging regulation, such as the Financial Action Task Force (FATF)'s "Travel Rule" targets wallet providers as key nodes for collecting and reporting information on transaction senders and receivers.

Custodians play a particularly important role for institutional participants in the stablecoin market. Qualified custodians such as Anchorage and BitGo offer services tailored to hedge funds, asset managers, and fintechs seeking secure, compliant access to digital assets. These platforms often integrate with OTC desks, lending protocols, and internal risk controls, facilitating stablecoin use in treasury management and yield generation. Notably, some custodians are also involved in reserve management for stablecoin issuers themselves. For example, Circle has partnered with BNY Mellon and BlackRock to custody and manage reserves backing USDC.

Insight from Lewis Gudgeon, Co-founder of Gyroscope

Lewis Gudgeon highlights that the primary risk factors associated with stablecoins depend on their design, particularly the distinction between custodial and non-custodial models:

- Custodial stablecoins expose users to counterparty risks, including potential mismanagement of reserves, default by the issuer, or regulatory actions that may result in asset freezes.
- Non-custodial stablecoins face risks related to the collateral itself, such as sudden deleveraging events. These designs also carry technical risks, including smart contract vulnerabilities, layer-one blockchain risks, and the reliability of price oracles.
- In both cases, governance structures represent an additional, significant source of risk.

These risk dimensions are examined in detail in Gudgeon's paper (Klages-Mundt et al., 2020).

Despite their infrastructural role, wallet providers and custodians introduce important risks. Centralised custody platforms can be vulnerable to cyber-attacks or regulatory intervention, while failure or abuse (e.g., withdrawal freezes or mismanagement of collateral) can disrupt user access and undermine trust in stablecoin redemption. Events like the FTX collapse in 2022 illustrate how issues at the custody and access layer can affect the broader ecosystem. As such, wallet providers and custodians are not passive intermediaries but active players in the stablecoin market.

4.4.5 Traditional finance involvement

As shown in Figure 5, the PayPal-issued PYUSD has been gaining market attention in recent years. In fact, traditional financial entities, including banks, payment processors, and even credit card networks, are actively seeking opportunities to develop stablecoins. Several examples are provided below.

- *PYUSD*. PYUSD is a USD-pegged stablecoin launched by PayPal in August 2023 in partnership with Paxos.[36] PYUSD is fully backed 1:1 by USD deposits and treasuries and is designed for digital payments

[36] See PayPal's developer blog post on using PayPal USD for commerce.

on PayPal and Venmo. PayPal describes PYUSD as "*an attractive payment option for merchants and customers*" given its stability and zero-fee transfers between PayPal users. The token circulates on both Ethereum as an ERC-20 token and Solana as an SPL token. This enables its use beyond PayPal's platform across multiple blockchain ecosystems. As of September 2025, PYUSD has accumulated a market capitalisation of over $1.27 billion, securing its position among the top 10 stablecoins by market cap.

- *EUR CoinVertible (EURCV) and USDCV*. EURCV is a EUR-pegged stablecoin issued in April 2023 by Société Générale-Forge (SG-Forge), the digital assets subsidiary of Société Générale (SG), France's third-largest bank.[37] Billed as the first institutional euro stablecoin, EURCV is fully regulated under French and EU law. In mid-2024, SG-Forge secured an e-money license[38] under the EU's MiCA regulations, allowing broader distribution of EURCV. As of September 2025, EURCV has accumulated a market capitalisation of over $65 million. Following the issuance of EURCV, SG-Forge launched USD CoinVertible (USDCV) in 2025, a stablecoin pegged to the US dollar that also adheres to the MiCA regulation.[39] Its reserves are fully backed by US dollars held at BNY Mellon, and the token is issued on Ethereum and Solana.

- *JPM Coin*. JPM Coin[40] is a digital token developed by JPMorgan Chase in 2019. It is used to support fast value transfer and settlement between institutional clients. The token operates on Onyx, JPMorgan's private blockchain network. Onyx is built on Quorum, a permissioned version of Ethereum designed for enterprise use. JPM Coin is different from public stablecoins (e.g., USDT or USDC) in that it does not operate on public blockchains. Instead, it is used within a closed and permissioned ledger. This setup aims to improve security, privacy, and regulatory compliance for institutional clients.

- *Deutsche Bank's Euro Stablecoin*. In Europe, DWS (an asset manager owned by Deutsche Bank) announced plans to launch a German-regulated euro stablecoin by 2025.[41] The project will be implemented through a joint venture named AllUnity, established by DWS in collaboration with Galaxy Digital[42] and Flow Traders. The token will be fully regulated by BaFin (Germany's regulator) and backed 1:1 by euros. In July 2025, AllUnity was granted an E-Money Institution (EMI) license[43] by BaFin.

- *Stablecoin Platform VTAP*. In October 2024, Visa launched the Visa Tokenised Asset Platform (VTAP),[44] a network for banks and partners to issue fiat-backed tokens (including stablecoins and tokenised deposits) on blockchains.[45] While Visa's platform represents a major payment processor's commitment to stablecoin technology. Visa's system leverages its expertise in secure payments and smart contracts to help regulated institutions create and transfer stablecoins. VTAP has attracted interest from traditional financial institutions. For instance, the Spanish bank BBVA plans to pilot[46] a token on Ethereum in 2025 using VTAP.

4.5 Learnings from market episodes

Although stablecoins are designed to maintain a stable value, they can, like traditional financial institutions and financial instruments, be impacted by market volatility and financial stress. Like almost all currency pegs, their prices may deviate significantly from their pegs in times of crisis. We discuss key instances of instability below, focusing on their causes and the lessons learned.

4.5.1 Bitfinex banking disruption (USDT)

Bitfinex, one of the largest cryptocurrency exchanges, has close corporate and operational links with Tether, the issuer of USDT. The two are run by overlapping executive teams and were historically under the same parent company. The crisis began in April 2017, when Bitfinex lost access to its banking partner, Wells Fargo. This correspondent bank halted all outgoing USD wire transfers from Bitfinex customers,[47] affecting

[37] See Société Générale-Forge's announcement on expanding EURCV's distribution and usability.
[38] See Ledger Insights' coverage of SG-Forge's e-money license approval under MiCA.
[39] See SG-Forge's press release, which announces the launch of USDCV.
[40] See BBC News' introduction of the JPM coin.
[41] See Reuters' coverage of DWS's plans to launch a euro stablecoin joint venture.
[42] See Galaxy's announcement on the launch of AllUnity to issue a regulated euro stablecoin.
[43] See Reuters' coverage of AllUnity's regulatory approval.
[44] See Visa's developer page for an overview of the VTAP platform.
[45] See The Paypers' coverage of Visa's announcement of VTAP.
[46] See BBVA's announcement on its participation as the first client bank to join VTAP.
[47] See CoinDesk's report on Bitfinex's 2017 lawsuit against Wells Fargo over blocked USD wire transfers.

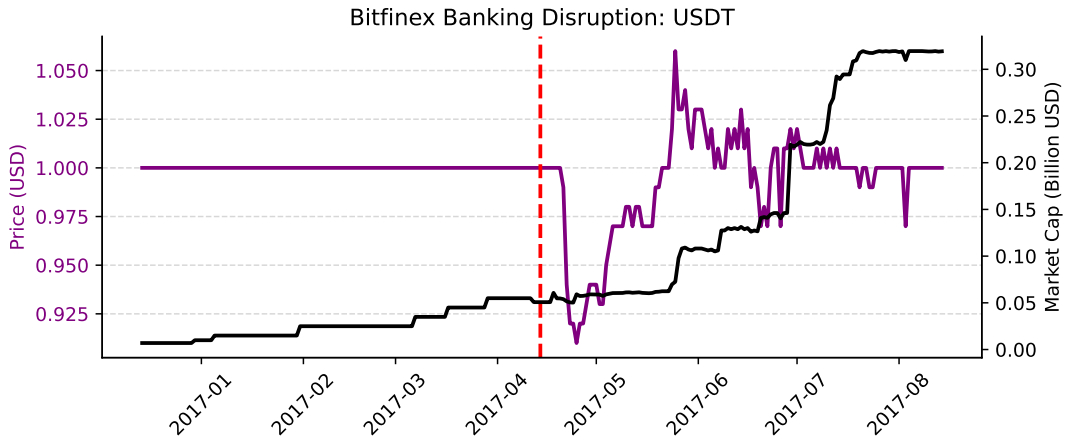


Figure 16: USDT price and market cap during the Bitfinex banking disruption

Notes: This figure shows USDT's daily price (left axis, purple) and market capitalisation (right axis, black) around the Bitfinex banking disruption. The dashed vertical line indicates the date Bitfinex reportedly lost banking access. Data source: CoinGecko.

the exchange's ability to process USD transactions. The disruption raised broad concerns about Bitfinex's solvency as well as the backing of USDT, which claimed to be fully collateralised by USD reserves held in bank accounts. As confidence in Bitfinex's ability to redeem USDT for USD deteriorated, USDT lost its peg and the price fell to 0.913. In response, Bitfinex and Tether took steps to regain market confidence. Bitfinex arranged alternative banking channels and eventually restored access through undisclosed partners.[48] This restoration allowed partial resumption of USD transactions.

The incident revealed structural weaknesses in stablecoins that rely on centralised banking to hold their peg. It illustrated the fragility of banking access and how easily it can trigger liquidity stress. It also highlighted ongoing concerns about Tether's reserve management and lack of transparency.

4.5.2 SVB collapse (USDC)

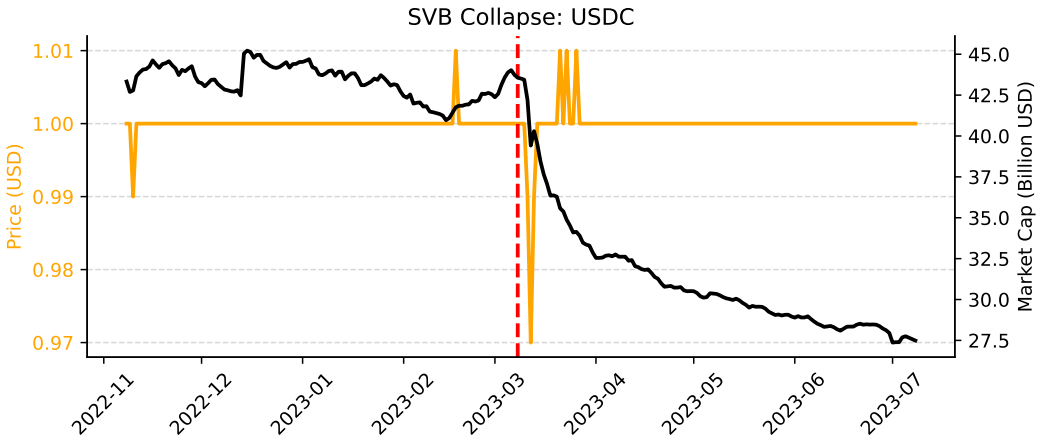


Figure 17: USDC price and market cap during the SVB collapse

Notes: This figure shows the daily price of USDC (left axis, orange) and its market capitalisation (right axis, black) around the collapse of SVB. The dashed vertical line marks the date when SVB disclosed a $1.8 billion loss. Data source: CoinGecko.

The Silicon Valley Bank (SVB) collapse was triggered by a combination of poor interest rate risk management, a concentrated depositor base, and a sharp drop in market confidence. In the years before its failure, SVB made significant investments in long-term US Treasury securities in order to expand its balance sheet.

[48] See Wikipedia's entry on Bitfinex for background on its banking disruptions and recovery efforts.

However, as the Federal Reserve raised interest rates sharply to combat inflation, the market value of these securities dropped. The situation escalated on March 8, 2023, when SVB announced it had sold $21 billion of securities at a $1.8 billion loss to boost liquidity.[49] Within 48 hours, depositors attempted to withdraw $42 billion, exhausting SVB 's liquidity (Aharon et al., 2023) and forcing regulators to step in. On March 10, 2023, the Federal Deposit Insurance Corporation (FDIC) officially took control of SVB,[50] marking the second-largest bank failure in US history. This crisis had an immediate effect on the stablecoin market (Galati et al., 2024), especially on USDC. Circle, the issuer of USDC, held $3.3 billion of its reserves at SVB, raising concerns about the safety of those funds. USDC's depeg triggered market anxiety over the adequacy of its reserve diversification. The peg was restored quickly, but only after US regulators intervened. On March 12, 2023, the US Treasury, Federal Reserve, and FDIC announced a full guarantee of all deposits at SVB.[51]

The SVB collapse was an important stress test for fiat-backed stablecoins, revealing their dependence on the traditional banking system. While often presented as safe assets, many stablecoins still rely on regulated banks to hold their reserves. This event highlighted the need for greater transparency and enhanced reserve diversification to mitigate future risks.

Insight from Professor Greg Buchak, Stanford Graduate School of Business

Prof Buchak emphasises that the main objective in designing stablecoins should be to avoid the creation of runnable short-term liabilities. He argues that stablecoins should be fully backed by highly liquid assets and potentially structured to resemble "demand equity". For example, by targeting a net asset value (NAV) of 1 under normal conditions, but allowing the NAV to float in times of distress. This approach would help ensure resilience without replicating the fragilities of traditional bank deposits.

He underscores the importance of the backing assets, noting that the collapse of Silicon Valley Bank (SVB) revealed the risks of holding long-term treasuries, which can suffer sharp valuation losses during interest rate shocks. Replacing runnable and/or insured liabilities with more robust instruments is broadly desirable, although it is not yet clear whether stablecoins are the optimal solution.

Moreover, he suggests that concerns about deposit outflows harming bank credit may be overstated, particularly in countries where non-bank financial intermediaries play a key role in credit provision.

4.5.3 Black Thursday crash (DAI)

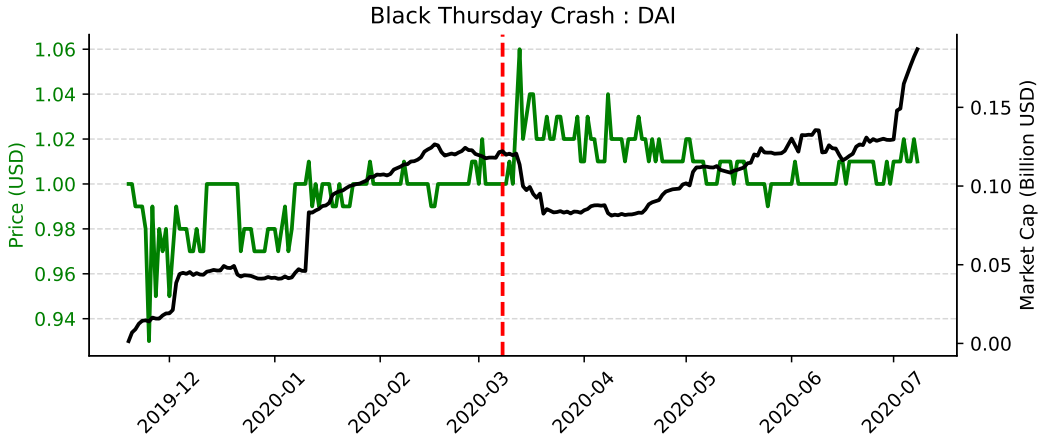


Figure 18: DAI price and market cap during the Black Thursday crash

Notes: This figure shows the daily price of DAI (left axis, green) and its market capitalisation (right axis, black) during the Black Thursday crash. The dashed vertical line marks the date of the global market sell-off, during which Ethereum's rapid price drop and on-chain congestion triggered under-collateralisation in MakerDAO's vaults. Data source: CoinGecko.

This event was triggered by the global financial shock from the COVID-19 pandemic, which led to a sharp

[49] See SVB's announcement of its $1.8 billion loss from securities sales.
[50] See the FDIC's official report on the failure of Silicon Valley Bank and its resolution.
[51] See the joint statement by the US Treasury, Federal Reserve, and FDIC announcing full deposit guarantees at SVB.

downturn in traditional markets (Mazur et al., 2021). As investors rushed to raise liquidity, crypto-assets saw broad sell-offs. On March 12, 2020, Bitcoin (BTC) and Ethereum (ETH) experienced extreme price declines of nearly 50% within 24 hours. The DeFi ecosystem was significantly impacted, particularly the MakerDAO protocol and its stablecoin, DAI. Unlike fiat-backed stablecoins, DAI is a crypto-backed stablecoin whose issuance depends on overcollateralised ETH positions. As the market collapsed, the sharp drop in ETH triggered mass liquidations of Collateralised Debt Positions (CDPs), many of which were auctioned at near-zero prices due to a lack of bidders. With collateral being sold off, CDP holders rushed to buy DAI to repay loans and avoid liquidation, pushing up demand. As the supply of DAI could not keep pace, the resulting supply-demand imbalance led to a liquidity crunch, causing DAI to trade above its $1 peg ($1.05–$1.10).[52]

To help restore stability, the MakerDAO community added USDC as a new collateral type.[53] This allowed users to mint DAI with a fiat-backed asset instead of relying only on volatile crypto. MakerDAO also raised the system's debt ceiling to expand DAI supply and ease the shortage.

The Black Thursday crash was one of the most severe liquidity crises in the history of the cryptocurrency market. It demonstrated the tight interdependence between market volatility, CDPs, and stablecoin stability.

4.5.4 Terra crash (UST)

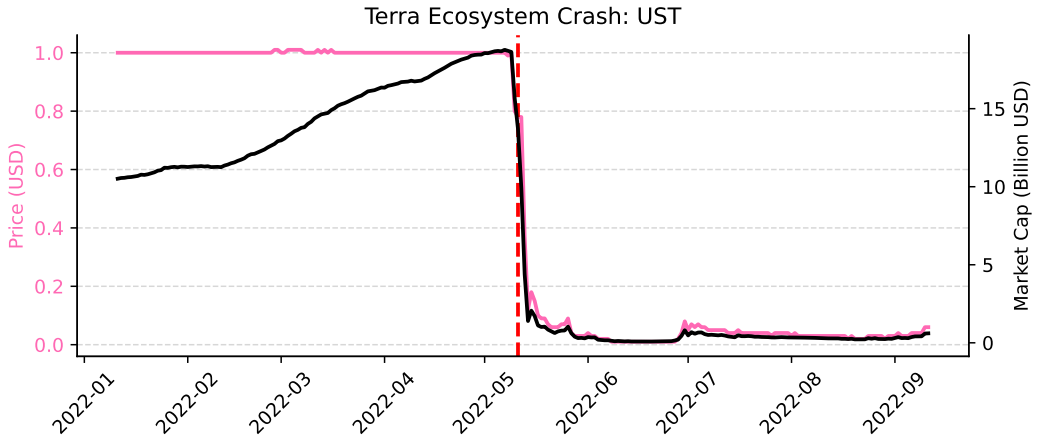


Figure 19: UST price and market cap during the Terra Crash

Notes: This figure shows the daily price of UST (left axis, pink) and its market capitalisation (right axis, black) during the Terra collapse. The dashed vertical line marks the beginning of the depeg event. Data source: CoinGecko.

The collapse of UST (now USTC) in May 2022 was one of the most significant systemic failures in the history of stablecoins, exposing fundamental vulnerabilities in algorithmic stabilisation mechanisms (Uhlig, 2022; Liu et al., 2023; Briola et al., 2023). Unlike fiat-backed or crypto-backed stablecoins, UST relied on an algorithmic design where its peg was maintained through an arbitrage mechanism with the TerraLUNA (LUNA) token on the Terra blockchain. The failure of UST was triggered by a combination of liquidity imbalances, mass redemptions, and a loss of market confidence. In early May 2022, Anchor Protocol, a lending platform offering artificially high yields on UST deposits, experienced large withdrawals. This led to increased selling pressure on UST and, in turn, destabilised the arbitrage mechanism responsible for maintaining its peg. As UST began trading below 1, the system attempted to restore the peg by minting excess LUNA tokens in exchange for UST. However, this flooded the market with LUNA and led to a hyper-inflationary collapse. Within days, UST fell as low as 0.01 (see Figure 19), rendering the coin worthless.

The collapse of UST marked a turning point for stablecoin regulation and design. It revealed the core weakness of algorithmic stabilisation models that rely on market confidence rather than hard collateral. In response, regulators began to push for greater transparency in reserve management. The crisis also triggered a flight to safety within the stablecoin sector, with market share shifting toward fiat-backed stablecoins such as USDT and USDC. Furthermore, it underscored the systemic risks posed by interdependencies between DeFi protocols and stablecoins, as well as the need for robust risk management to prevent cascading failures.

[52] See Blockworks' report on MakerDAO's $1.16 million settlement with users liquidated during the COVID-induced market crash.
[53] See Linum Labs' analysis of MakerDAO's Black Thursday event and the addition of USDC as new collateral.

4.5.5 Libra/Diem (LIBRA)

In June 2019, Facebook announced the launch of a digital currency called Libra (later Diem). It was launched to address inefficiencies in cross-border payments and limited access to financial services in many regions.[54] Technically, Libra was proposed as a stablecoin backed by a basket of bank deposits and short-term government securities. It was to run on a new permissioned Libra blockchain using a custom programming language (Move), with an initial capacity managed by Libra Association members acting as validators. Facebook's role was limited to being one member of the Libra Association and to providing a wallet service (Calibra, later renamed Novi), in order to reassure observers that Libra would not be solely controlled by Facebook.[55]

However, Libra's proposal quickly faced strong regulatory and political pushback across many jurisdictions, which ultimately led to its failure. In the United States, reactions were shaped by concerns over Facebook's past conduct and the potential systemic risks. Within hours of the 2019 announcement, US regulators raised alarms about Facebook gaining monetary influence without proper oversight. Their concerns included money laundering, terrorist financing, data privacy, and cybersecurity.[56] There were also bipartisan political concerns that a private network with billions of users could create an alternative currency outside government control, challenging the state's role in managing money and monetary policy. As a result, US regulators froze Libra's progress through public hearings and warnings.[57]

In the European Union, the response was more focused on the political implications of Libra. Top EU officials saw Libra as a threat to monetary sovereignty and competition policy, given Facebook's scale.[58] The idea of a US-based tech giant potentially issuing a transnational currency rang alarm bells in European capitals. As a result, EU regulators accelerated work on comprehensive crypto-asset rules (ultimately the MiCA regulation). MiCA explicitly addresses risks from "global stablecoin" projects like Libra. Even Switzerland, known for crypto-friendly regulation, made it clear through FINMA that Libra would be treated as a financial infrastructure subject to the highest regulatory standards (bank-like rules).[59]

The rise and fall of Libra/Diem showed the deep distrust toward Big Tech's involvement in digital finance, particularly in the absence of clear regulation. Most fundamentally, Libra exposed the tension between private innovation and public monetary authority. However advanced the technology or strong the market interest, a currency cannot succeed without political legitimacy. By proposing a quasi-sovereign currency without state support, Libra met strong resistance from governments.

4.6 What drives confidence in maintaining the peg

Confidence hence requires trust in the stabilisation mechanisms of stablecoins as well as their governance and their adequate nesting in a robust financial system. Collateral, algorithms, and hybrid systems are in place to ensure user trust in stablecoins. The few past cases of malfunctions discussed above remain rare and can be avoided via adequate design.

Reserve composition. At the core of users' trust is the quality of reserve assets, which underpin belief in stablecoin redemption at par. Most large fiat-backed stablecoins, such as USDT and USDC, hold cash or highly liquid instruments, including short-term US Treasury bills, repo agreements, or reverse repos.[60] Yet backing alone is not sufficient. Li et al. (2022) point out that riskier reserves may lead issuers to accumulate precautionary buffers, which may stabilise the price paradoxically. In contrast, forcing stablecoin issuers to hold only ultra-safe assets may reduce those incentives, which can potentially cause instability. Liao, Fishman, et al. (2024) propose a risk-based capital framework analogous to banking regulation. This approach would require issuers to hold capital buffers proportional to the riskiness of their reserve portfolios.

Issuance/redemption frictions and arbitrage. Reserves matter only if they are accessible. Lyons et al. (2023) show that the stability of a stablecoin depends critically on efficient access to issuance and redemption. If users can easily redeem at par, arbitrageurs are able to eliminate deviations between primary and secondary market prices, as illustrated in Figure 20. However, redemption restrictions like minimum thresholds, high fees, or restricted access dampen this mechanism. Watsky et al. (2024) document that many

[54] See Diem's original announcement of Libra as a global digital currency to improve financial access and cross-border payments.
[55] See CoinDesk's timeline of Libra's development and rebranding, from Facebook's lab to its eventual shutdown.
[56] See Reuters' report on US regulators' early concerns over Libra's systemic risks and oversight gaps.
[57] See The Washington Post's coverage of Libra's collapse amid internal tensions and regulatory opposition.
[58] See Reuters' report on France's rejection of Libra over concerns about monetary sovereignty and competition.
[59] See Ledger Insights' summary of FINMA's position on Libra as a regulated financial infrastructure.
[60] See Figure 15 for the evolution of reserve composition for Tether and USDC.

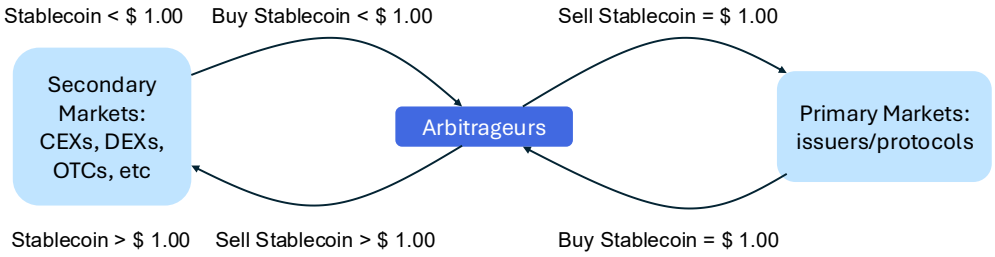


Figure 20: Arbitrage between primary and secondary markets

Notes: This figure illustrates how arbitrageurs can help maintain a stablecoin's peg by exploiting price discrepancies between the protocol-defined issuance/redemption price and the market price observed on exchanges. Arbitrage flows between primary and secondary markets help anchor the stablecoin near the peg. It is adapted from here.

fiat-backed stablecoins limit primary market access to institutional investors, which weakens arbitrage especially during periods of stress. Meanwhile, Ma et al. (2025) point out that while improved arbitrage efficiency can enhance price stability, it may elevate systemic risk by accelerating redemptions and amplifying run dynamics. Joshi (2025) shows that crypto-backed stablecoins preserve decentralisation but restrict arbitrage capacity, leaving their pegs vulnerable to speculative dynamics.

Liquidity and trading activities. Beyond primary market dynamics, secondary market activity shapes stablecoin performance in practice. As discussed earlier, stablecoins are deeply embedded in crypto markets. Bertsch (2023) finds that lending activity involving stablecoins can improve their adoption and peg stability, but may also fuel excessive speculation, which will increase the system's vulnerability to price corrections. Eichengreen et al. (2023) construct a market-based measure of stablecoin devaluation risk based on spot and futures price spreads and show how investor sentiment and redemption constraints amplified peg deviations. Similarly, Gorton, Klee, et al. (2025) show that margin trading can help maintain the peg because leveraged traders bid up the lending rate, which in turn raises the stablecoin's secondary-market price and keeps it near the par. However, such dynamics introduce feedback loops where price shocks in underlying crypto markets can propagate to stablecoins themselves.

Transparency and reporting. Improving transparency around reserve assets is another way to enhance stablecoin stability. Ahmed et al. (2023) show that disclosure of reserve quality significantly affects market confidence and peg stability. Tools like Chainlink's "proof of reserve" mechanism offer real-time, on-chain verification of reserve assets, which can help mitigate informational asymmetries and enhance user trust.

Insight from Mark Raynes, Chainlink Labs Global Head of Solutions Architecture, Banking & Capital Markets

Mark Raynes emphasises that enhancing public trust in stablecoins depends on *automated and transparent verification of reserves*. He advocates for:

- Regular, on-chain publication of reserve audit results and asset values.
- Programmatic minting strictly tied to verifiable reserve data, as enabled by Chainlink's Proof of Reserve (POR) and Secure Mint.
- Full transparency regarding reserve composition, auditor identity, and token contract design to prove that issuance is governed by verified reserve data.

He highlights that without this level of transparency, trust depends on unverifiable claims. With it, stablecoins can serve as a trusted infrastructure for the global financial system. To achieve this, robust technical solutions are required to ensure that transparency is not only promised but delivered in a secure and verifiable way.

5 Stablecoins: Macro-Financial Implications

5.1 Linkage to traditional financial systems

Stablecoins are becoming increasingly interconnected with traditional financial systems through their reserve assets and underlying market infrastructure. Issuers typically hold reserves in short-dated government debt, bank deposits, and reverse repurchase agreements. This integration channels liquidity between crypto markets and core money markets, creating two-way spillovers: large-scale redemptions can tighten funding conditions in the banking sector and Treasury markets, while stress in traditional markets can pressure stablecoin pegs. Understanding these linkages – who holds the reserves, how liquidity is managed, and where credible backstops do or do not exist – is essential for assessing the systemic risk associated with broader stablecoin adoption and for designing proportionate regulatory responses.

Insight from Professor Christine Parlour, Berkeley Haas

Prof Parlour warns that widespread adoption of stablecoins could reduce bank deposits and weaken the transmission of monetary policy. She stresses the importance of integrating stablecoins into existing legal frameworks governing bankruptcy, collateral, and payments and cautions against the tendency to stretch outdated legal structures to accommodate new technologies. For policymakers, the key challenge is balancing innovation, systemic safety, and legal clarity.

5.1.1 Stablecoins and the banking sector

The relationship between stablecoins and the banking sector is bidirectional. Stress from the banking side can transmit to stablecoins through reserve exposures. During the SVB episode,[61] the disclosure that $3.3 billion of USDC reserves were held at the failed bank triggered a temporary de-pegging of USDC and a flight into USDT[62], the largest and most liquid stablecoin (Oefele et al., 2024b). This mirrored a broader "flight-to-quality" pattern also observed in money market funds, with inflows into government MMFs and outflows from prime and tax-exempt MMFs during periods of stress (Anadu et al., 2023; Oefele et al., 2024b).

From the perspective of banks, the implications of stablecoin adoption on deposit outflows and credit intermediation are actively debated. Liao and Caramichael (2022) argue that if stablecoins are structured as "narrow-bank" liabilities fully backed by central bank reserves, they can potentially accelerate deposit outflows during financial distress, disrupting banks' credit provision. By contrast, in a two-tiered model where reserves backing the stablecoin remain inside the banking system, the risk of credit disintermediation is substantially reduced. Liao (2022) further call for new macro-prudential frameworks to address stablecoins operating outside the scope of current banking regulation as their widespread adoption could alter the demand for safe assets, reduce commercial bank deposits, and constrain credit creation. Flannery (2023) present a complementary argument, noting that if stablecoins hold reserves in Treasury securities or MMF shares, retail deposits will fall. This may force banks, especially small ones, to either decrease lendings or rely more heavily on costly wholesale funding. However, recent industry analysis finds that stablecoin adoption has had limited effects on the deposit base of US community banks (CRA, 2025). One key reason is that there is relatively little overlap between typical stablecoin users who are often digitally sophisticated households and institutions and the customer base of smaller, relationship-focused banks. This suggests that displacement effects may be more concentrated in larger banks with overlapping client segments. Finally, Kim (2025) investigates a novel macro-financial transmission channel through which stablecoins influence Treasury markets and bank credit provision. Using high-frequency Ethereum issuance data, he finds that short-term Treasury prices rise significantly after large USDT minting events. This intensified demand for safe assets affects banks' balance sheet constraints and carries broader implications for credit intermediation.

Taken together, while theoretical models point to the possibility of accelerated deposit outflows and new transmission channels to bank funding, recent empirical evidence suggests these effects may be more limited and uneven across different segments of the banking sector.

[61] See §4.5.2 for a detailed description.

[62] Examining both the Terra collapse in 2022 and the SVB crisis in 2023, Anadu et al. (2023) show that redemptions during stablecoin runs were largely channeled into other stablecoins, remaining within the crypto ecosystem rather than returning to banks or MMFs. Moreover, Aldasoro, Cornelli, et al. (2025) find that stablecoins capitalisations respond strongly to US monetary policy shocks. More specifically, Fed tightening leads to outflows from stablecoins and into prime MMFs.

Insight from Professor Greg Buchak, Stanford Graduate School of Business

Prof Buchak highlights that the uptake of deposit alternatives like digital assets and stablecoins depends on how they integrate with the existing financial system.

He draws on China's experience to illustrate this point: while the digital yuan saw limited adoption, Alipay's Yu'ebao (a money market fund with deposit-like features) grew rapidly, at one point reaching a total AUM equal to roughly 12% of total bank deposits. Its success was driven by seamless integration into the widely adopted Alipay app, as well as its ability to offer higher returns than traditional bank deposits.

In related research, he and his coauthors find that banks more exposed to Alipay users experienced significant deposit outflows and a decline in lending activity. Although the money was ultimately circled back to the banking sector through Yu'ebao's investment in short-term bank debt, this funding carried market-based interest rates rather than repressed deposit rates. As a result, banks' marginal funding costs rose and part of this was passed through to borrowers. The Chinese government eventually intervened to limit Yu'ebao's growth due to bank stability concerns (Buchak, Jiayin Hu, et al., 2021).

He notes that a similar scenario is less likely in the US, as much of the shift from bank deposits into alternative financial assets has already occurred. The deposit share of household financial assets in the US is now only around 13%, down from approximately 25% in the 1970s, a decline driven largely by the growth of money market funds and other savings technologies since the 1980s (Buchak, Matvos, et al., 2024).

5.1.2 Stablecoins and Treasury markets

Stablecoins are increasingly connected to government bond markets through their reserve holdings, which are concentrated in short-dated, high-quality liquid assets such as US Treasury bills, Treasury-backed reverse repos, and bank deposits.[63] This creates a direct exposure to Treasury markets through outright purchases of bills and participation in repo transactions.

Table 2: Holders of US Treasury bills, Q4 2024

Holding sector	Treasury bills ($ billion)	Share of $6.19 tn in bills outstanding
Money Market Funds (MMFs)	2,428	39%
Foreign investors	1,199	19%
Insurance companies	303	5%
Berkshire Hathaway	301	5%
Federal Reserve	193	3%
Stablecoin issuers	110	2%
Mutual funds	9.4	0.2%
All other holders	1,600	26%

Notes: The primary source is Table L.210 from the Federal Reserve's Financial accounts of the United States (Z.1), which reports sector-level holdings of U.S. Treasury securities and disaggregates Treasury bills from notes and bonds. MMFs include government, prime, and tax-exempt funds. Several sectors, including banks, broker-dealers, pensions, and state-local governments, are not broken out into bills versus notes and are therefore grouped into the residual "All other holders" category. The insurance sector includes both property-casualty and life insurance companies. Estimates for Berkshire Hathaway are based on its year-end investor disclosure and subsequent press reporting. Stablecoin issuer holdings reflect attested reserves of USDT and USDC as of Q1 2025 and January 2025, respectively. Mutual fund figures are derived from open-end and ETF funds not classified as MMFs. Totals may not sum to 100% due to rounding and classification differences.

As of March 2025, USDT remains the largest stablecoin in circulation, with a market capitalisation of $150 billion, holding approximately 66% of its reserves in US Treasury bills and 11% in reverse repos.[64]

[63] Earlier in the sector's development, major issuers held sizable CP/CD positions; disclosures and media reports indicate these were largely phased out by 2022-2023 as portfolios migrated toward T-bills, reverse repo, and bank deposits. See Panel (a) and Panel (b) of Figure 15 for the evolution of reserve composition for USDT and USDC, respectively.

[64] Including both overnight agreements fully collateralised by US Treasuries rated A-2 and term agreements with average maturity of less than 90 days, also fully collateralised. The numbers exclude indirect holdings via MMF shares.

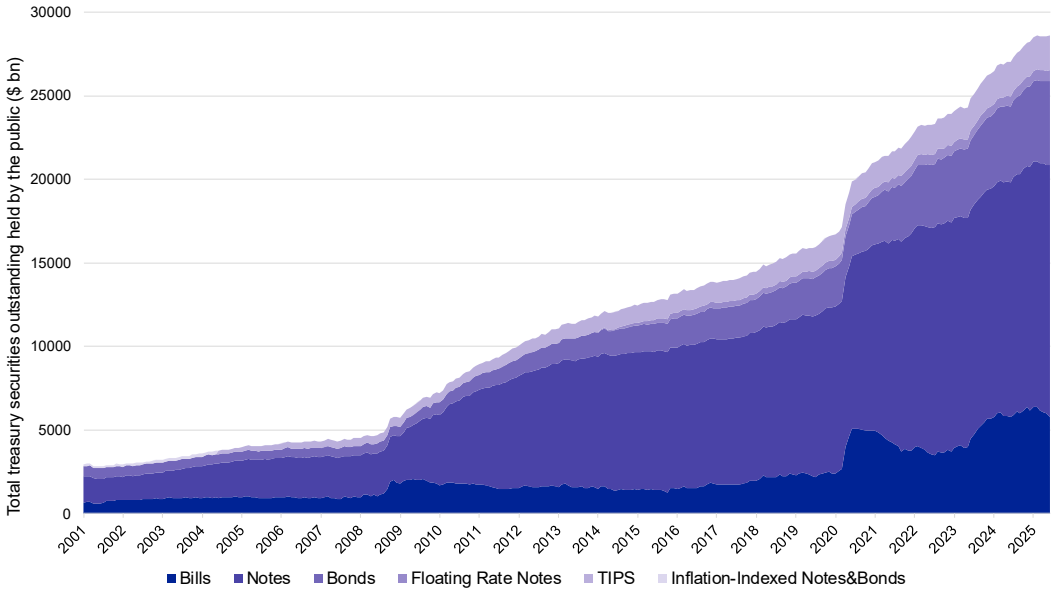


Figure 21: US total marketable Treasury securities outstanding

Notes: This figure shows the total outstanding stock of US marketable Treasury securities by instrument type, including Bills, Notes, Bonds, Floating Rate Notes, Treasury Inflation-Protected Securities (TIPS), and other inflation-indexed notes and bonds, held by the public from January 2001 to June 2025. Amounts are expressed in billions of US dollars. Data are from the US Treasury Monthly Statement of the Public Debt (MSPD).

USDC, with a market cap of $60 billion, allocates around 41% of its reserves to US Treasury securities and 51% to reverse repos, either directly or indirectly via its Circle Reserve Funds. Collectively, these two issuers already hold around $123 billion in Treasury bills, roughly 2% of the market (Figure 21), placing them among the largest institutional holders (see Table 2 for a snapshot of Q4 2024).

Looking ahead, the stablecoin sector is expected to expand substantially, although estimates vary widely. Following the enactment of the GENIUS Act, both Standard Chartered and TBAC (2025)[65] project that the supply of stablecoins could reach around $2 trillion by 2028. Citigroup (2025) offers a similar outlook, projecting $1.6 trillion in a base case and up to $3.7 trillion in a bullish scenario by 2030, driven by increased substitution of currency holdings from banknotes to stablecoins and broader adoption across payments and DeFi. By contrast, JPMorgan (2025) takes a more conservative view, suggesting the market may grow to around $500–$750 billion over the next few years, reflecting the time needed to build out supporting infrastructure and applications. Assuming that on average 80% of stablecoin reserves are held in T-bills or overnight reverse repos, even the more moderate projections imply substantial additional demand for short-term US government debt. Under the higher-end scenarios, this demand could reach as much as $1.6 trillion over the next four years, a scale comparable to major institutional holders of Treasury bills, as shown in Table 2. As such, reallocations in stablecoin reserve portfolios can potentially influence short-term rates, market depth and liquidity conditions.

A growing empirical literature quantifies these effects. Barthélémy et al. (2023) examine how changes in USDT and USDC reserves, shaped by investor demand and reserve policies, influence demand for short-term safe assets. They find that increased stablecoin issuance leads to a rise in commercial paper (CP) supply, though with limited impact on CP yields.[66] Kim (2022) find that a one standard deviation increase (roughly $330 million) in Tether/USDC issuance raises CP volume by 11% and lowers CP yields by 18bps, along with a 15bps decline in Treasury yields the next day, which indicates direct spillovers from crypto flows to short-term safe assets markets. Using local projection with instrumental variables, Aldasoro and Ahmed (2025) estimate that a $3.5 billion aggregate inflow into stablecoins compresses 3-month Treasury bill yields by approximately 2.5bps within 10 days, and up to 5bps within 20 days,[67] with USDT accounting for around 70% of the effect

[65] Treasury Borrowing Advisory Committee (TBAC).

[66] At its peak in June 2021, Tether was reportedly among the largest holders of dollar-denominated commercial paper, see the Financial Times' report on Tether's reserve disclosures, and panel (a) of Figure 15 for the evolution of Tether's reserve composition, which raises concerns about potential disruption to short-term funding markets during a redemption shock.

[67] To put the magnitude into perspective: a 2.5bps move in the 3-month T-bill yield is comparable to the changes seen from modest

and USDC contributing about 19%. Using high-frequency data from the Ethereum blockchain matched to intraday Treasury-linked ETF prices, Kim (2025) show that large Tether issuance events cause temporary upward price pressure on Treasury bills, averaging a 1.5bps within the following hour.

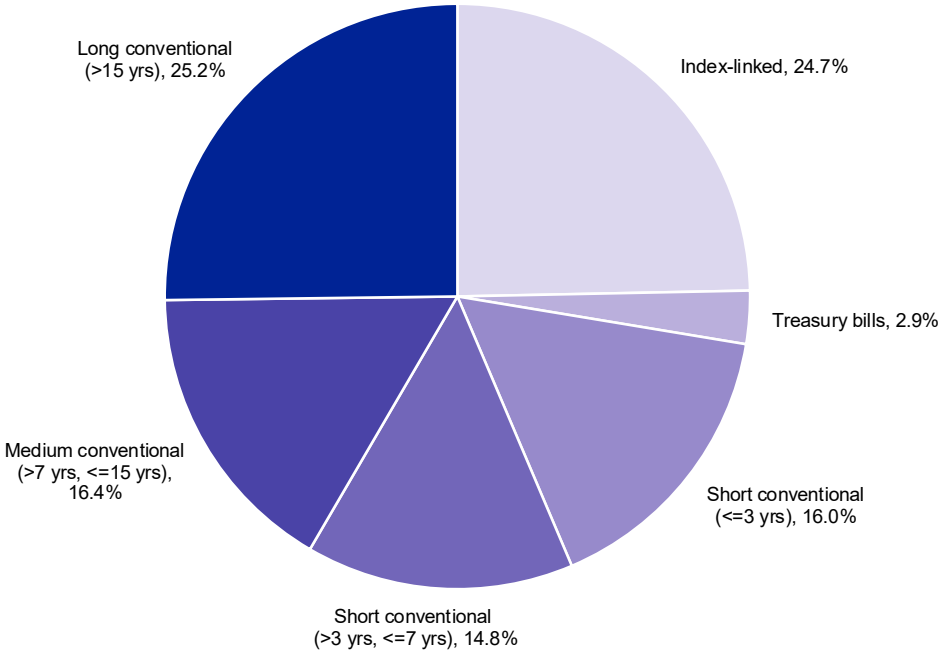


Figure 22: Composition of UK government debt

Notes: This figure illustrates net uplifted values as of 31 March 2025, excluding gilts held by the UK Debt Management Office (DMO). The total outstanding stock amounted to £2,558.02 billion, as reported in the DMO's Quarterly Review. Categories include conventional gilts by residual maturity (short: $\leq$ 7 years; medium: 7−15 years; long: $>$15 years), index-linked gilts, and Treasury bills. Data are from DMO's website.

While these studies focus on stablecoin inflows during normal market conditions, the effects of large-scale redemptions during stress episodes remain an underexplored source of systemic risk. As stablecoins become significant holders of government bonds, sudden large redemption waves could amplify volatility, particularly in thin markets. While the market is currently dominated by dollar-pegged stablecoins and holdings of major stablecoins are almost entirely in dollar assets, the mechanisms identified below generalise to the UK market: if GBP-pegged stablecoins scale with similar reserve policies, flows would transmit to sterling bills and gilt-backed repos via the same channels.

As of end-March 2025, the gross nominal stock of central government sterling debt stood at £2,716 billion. However, UK Treasury bills were just £75 billion ($\sim$3%), reflecting their use for short-term cash management rather than structural deficit finance. Short-dated conventional gilts ($\leq$ 3 years[68]) accounted for 16%, as reflected in Figure 22.

In contrast to the US (Figure 23), the UK gilt market features a substantial share of index-linked issuance (Figure 22) and a relatively long average maturity (Figure 24).[69] Developing GBP-linked stablecoins could help deepen the sterling bill market, support repo market depth, and reduce yield curve distortions at the front end.

The structural characteristics of the UK gilt market are also shaped by the evolving composition of demand. Figure 25 illustrates the distribution of gilt holdings across sectors. UK pension funds and insurers have historically been key buyers of long-dated and index-linked gilts for their liability matching strategies, but their share has declined from around two-thirds in the late 1990s to under one-third by 2024. According to OBR (2025), this downward trend is expected to continue declining as most private sector defined benefit

shifts in bill supply or ON RRP usage, but much smaller than moves from a 25 bp Fed rate cut (often 15-20bps for bills in the days around the decision) or from large stress events.

[68] Although exact figures for conventional gilts maturing in under 1 year are unavailable, the UK's relatively long average maturity suggests most of theses are clustered above 1 year within the $\leq$3-year bucket.

[69] The US has a weighted average maturity of 71.7 months as of Apr 30, 2025 according to TBAC (2025).

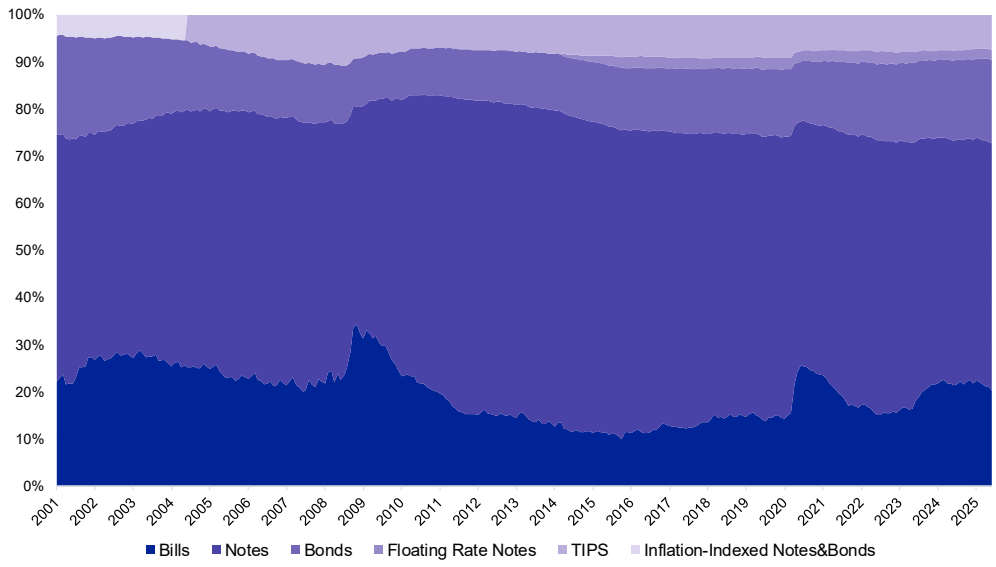


Figure 23: Composition of US government debt

Notes: This figure shows the composition of US marketable Treasury securities by instrument type, including Bills, Notes, Bonds, Floating Rate Notes, Treasury Inflation-Protected Securities (TIPS), and other inflation-indexed notes and bonds, held by the public from January 2001 to June 2025. Amounts are expressed as shares of total marketable debt outstanding. Data are from the US Treasury Monthly Statement of the Public Debt (MSPD).

(DB) pension schemes are now closed to new members and are being gradually wound down. The parallel shift toward defined contribution (DC) schemes is unlikely to offset this decline, given that DC portfolios are typically more heavily weighted toward equities. Other monetary and financial institutions (primarily UK banks) saw their holdings fall from around 5% to nearly zero in the early 2000s, before recovering to roughly 6% in 2024. Overseas investors have steadily increased their share, rising from 19% in 1998 to 31% in 2024. The Bank of England's holdings surged following post-crisis Quantitative Easing (QE), peaking at 33% in 2023, up from zero in the late 1990s. Other financial institutions hovered between 5% to 11%, while the residual "Other" category has fallen close to zero.

In this evolving investor landscape, with Quantitative Tightening (QT) underway and volatile foreign demand, GBP-pegged stablecoin issuers could emerge as a new class of institutional holder. Using the UK's position in global finance as a guide, several benchmarks provide plausible estimates of its potential stablecoin market share. The UK accounts for roughly 11% of the global fintech industry and attracted about $9.9 billion of the $95 billion in global fintech funding in 2024.[70] Sterling's role in foreign exchange markets is even larger, at 12.9% of global FX turnover, according to the BIS (2022b). By contrast, the UK's share of global GDP is a more conservative 3.4% (IMF, 2025). Applying these benchmarks to a more conservative projection of $750 billion global stablecoin market 2030[71] suggests a potential UK market ranging from $18 billion (GDP-based) to $83–97 billion (fintech- or FX-based). As discussed above, if GBP-backed stablecoins adopt similar reserve strategies to their USD counterparts, they could become meaningful players in the sterling government debt market, particularly at the short end.

Insight from Professor David Miles, Imperial Business School

Prof Miles notes that if a sterling stablecoin were to become significant in the UK, it could generate strong demand for Treasury bills and for short-dated gilts. While that is of value to a government with an ongoing need to sell a lot of government debt, skewing issuance to very short maturity instruments would generate its own problems, especially if the stablecoin-driven demand were to prove volatile.

[70] See UK government website and KPMG (2025).
[71] Based on JPMorgan (2025).

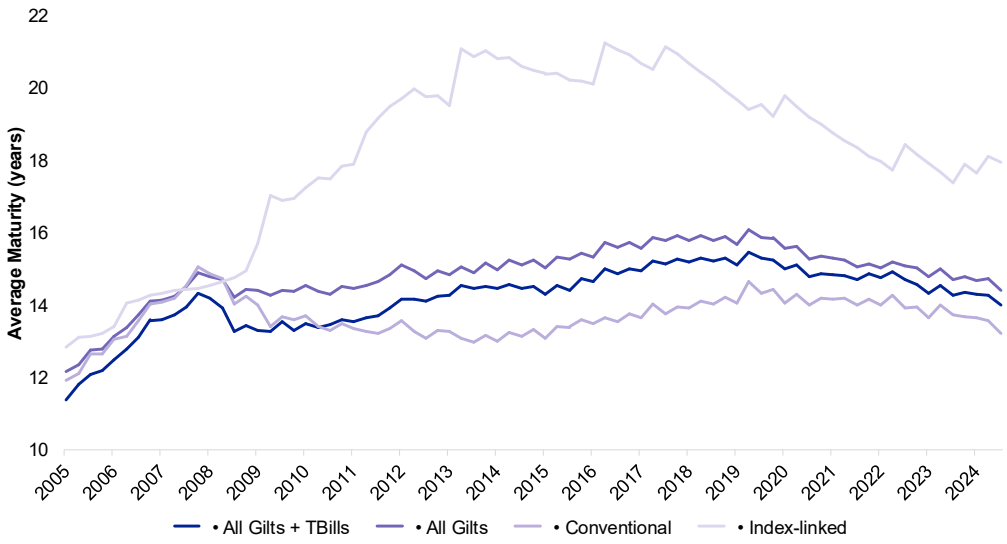


Figure 24: Evolution of the average maturity of the UK debt portfolio

Notes: This figure illustrates net uplifted values as of 31 March 2025, excluding gilts held by the UK Debt Management Office (DMO). It shows the average maturity (in years) of various components of the UK government debt portfolio, including Treasury bills, conventional gilts, and index-linked gilts. Data are from DMO's website.

Insight from Jan Loeys, Long-Term Strategist and former JPMorgan Economist

Jan Loeys argues that the UK gilt curve is unusually long due to pension regulations that drive demand for long-duration assets, which distorts market dynamics. He describes this as an unfortunate situation where regulatory designs, not fundamentals, shape the yield curve. Despite a recent fall in average maturity from around 18–19 years to 13 years, the UK has not meaningfully increased Treasury bill issuance, even though upward-sloping curves favour short-term borrowing.

He sees stablecoins as a potential catalyst for change. If deposits shift into stablecoins, banks' balance sheet capacity for maturity transformation would shrink, which reduces demand for long-dated assets and loans and steepens the curve, by raising term premia. Meanwhile, stablecoins and MMFs prefer short-term, high-quality instruments like Treasury bills, potentially increasing demand at the short end. He sees no immediate liquidity risk in the gilt market, but warns that issuance remains misaligned with emerging investor preferences, something Treasury could easily address by issuing more short-term paper and bills, if that is what investors have need of.

5.1.3 Stablecoins and FX markets

Stablecoins are also likely to play an increasingly important role in foreign exchange markets. Existing evidence is still limited, but early work suggests that stablecoin-based FX trading already exhibits features of efficiency and integration with traditional markets. Ranaldo et al. (2024), for example, study the on-chain EURC/USDC market and its link to the off-chain parallel EUR/USD FX rate. They show that blockchain currency market functions efficiently, with EURC/USDC prices closely tracking EUR/USD with only small, transient deviations of around 20bps. Moreover, they document that sophisticated traders and primary dealers contributing disproportionately to price discovery on-chain relative to liquidity providers, mirroring the dealer-centric structure of traditional FX markets.

These evolving linkages between the crypto sector and the traditional financial system underscore the importance of regulating stablecoins not simply as payment innovations, but as components of a broader, interconnected financial ecosystem.

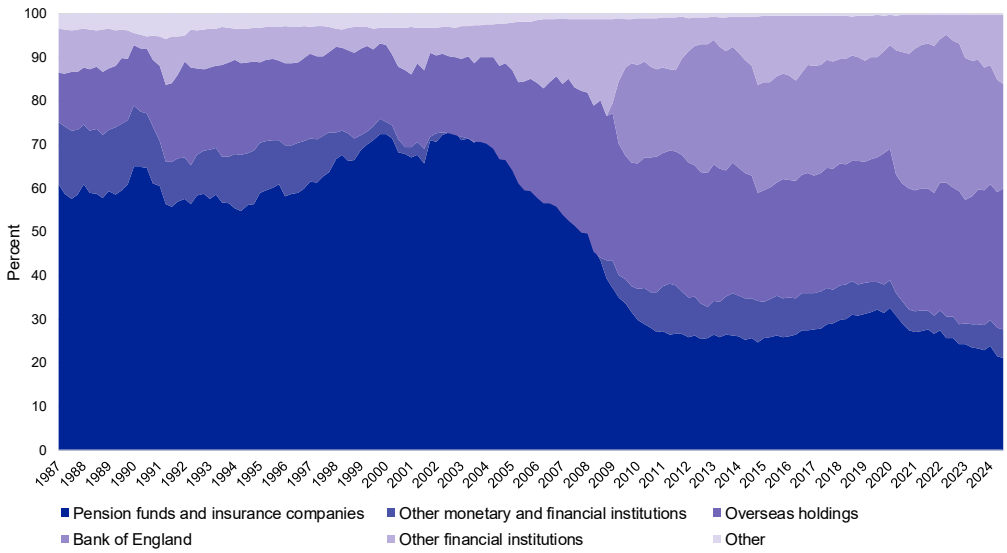


Figure 25: Gilt holdings by sector

Notes: This figure illustrates the sectoral distribution of UK gilt holdings. "Other monetary and financial institutions" are primarily UK commercial banks. "Overseas holdings" include foreign official institutions, such as central banks. "Other financial institutions" comprise mutual funds, retail investors accessing gilts through ISA vehicles, and other non-bank private investors. The "Other" category includes households, public corporations, and local government entities. Data are sourced from the ONS and the Fiscal Risks and Sustainability Report, July 2025 by the Office for Budget Responsibility (OBR).

Insight from Professor Ganesh Viswanath-Natraj, Warwick Business School

Prof Viswanath-Natraj notes that stablecoins could be used as an alternative to correspondent banking, with users potentially using EURC/USDC markets to exchange USD into EUR through the following process: USD $\rightarrow$ USDC $\rightarrow$ EURC $\rightarrow$ EUR. While transaction costs such as gas fees, slippage, and exchange charges are currently high, he believes that greater market liquidity and blockchain scaling could make this route more competitive over time.

He also highlights that one motivation for developing pound-based stablecoins is to prevent de facto dollarisation through stablecoins and the resulting constraints on domestic monetary policy – a rationale echoed in Europe's push for MiCA and the digital euro.

In FX markets, London's role as a global offshore centre supports the case for GBP stablecoins, particularly for GBP/USD trading. However, as USD remains dominant even in London, GBP stablecoin growth need not outpace that of USD-based ones. Ultimately, the implications depend on the use case. For offshore FX trading, USD-denominated stablecoins may remain dominant. But for domestic or retail payments, widespread use of USD-based stablecoins could erode monetary policy effectiveness – making the case for GBP-denominated alternatives stronger.

Insight from Jan Loeys, Long-Term Strategist and former JPMorgan Economist

Jan Loeys believes that stablecoins will have minimal impact on Sterling FX markets or London's role as a global FX trading centre, particularly in the institutional space. He argues that institutional FX markets are already highly efficient – with tight spreads, fast execution, and robust settlement infrastructure – leaving little room for disruption by stablecoins or distributed ledger technology (DLT).

While stablecoins may improve retail FX by reducing fees and settlement times, he sees this not core to London's FX dominance in institutional, multi-currency trading. He cautions that UK regulators risk overly prioritising Sterling-denominated stablecoins and missing broader opportunities in G10 and global FX markets. He warns that such a narrow focus could undermine London's long-term competitiveness as a financial hub.

5.2 Stablecoins as a form of tokenised money

Tokenisation is reshaping the landscape of digital money, with stablecoins emerging as one of the most prominent and rapidly growing applications. Stablecoins are a form of tokenised money, alongside tokenised deposits issued by commercial banks, central bank digital currencies (CBDCs), and tokenised money market funds (MMFs) managed by traditional asset managers. In addition to differences in issuer type, these forms of tokenised money can also be compared along three functional dimensions: permissioning, yield-bearing capability, and programmability, as illustrated in Figure 26 (Disparte et al., 2024).

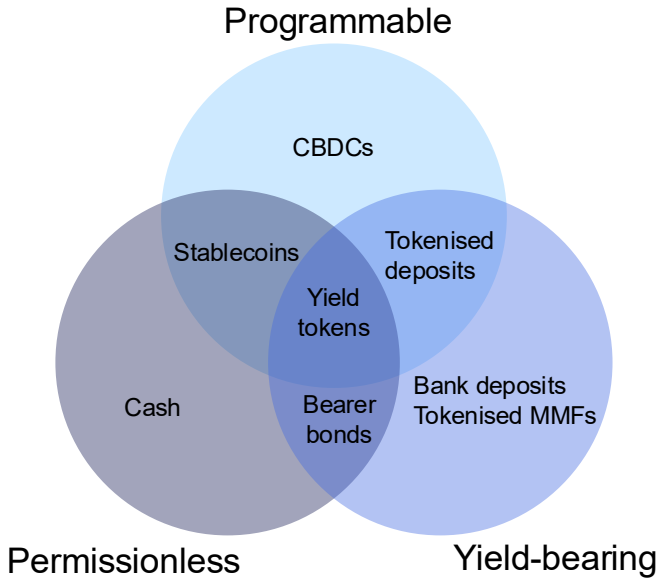


Figure 26: Money tokens

Notes: This is adapted from Disparte et al. (2024). Money tokens are grouped by three functional features that shape both their utility and risk profile: (1) permissioning, (2) yield-bearing capability, and (3) programmability.

- *Permissioning.* Stablecoins typically operate on permissionless DLT platforms, providing access to users globally and allowing interoperability with decentralised applications. In contrast, tokenised deposits[72] and CBDC implementations often operate on permissioned platforms, reflecting stricter regulatory oversight and compliance requirements.[73] Tokenised MMFs[74] may adopt either model, depending on jurisdiction and issuer preferences. As noted above, this typology acts as a heuristic; many systems now blend features of both public and private architectures.
- *Yield-bearing capability.*[75] Traditional stablecoins generally prioritise peg stability over yield generation, making them suitable for payment functions. However, the emergence of yield-bearing stablecoins such as sUSDS, [76] USDY,[77] and USDM[78] blurs the line between money and investment instruments, potentially bringing assets within the scope of securities regulation. Tokenised MMFs are explicitly structured to generate yield through interest-bearing assets and to pass on a portion to holders. Tokenised deposits and

[72] A pioneering example is JPMorgan's JPM Coin, which was rebranded as Kinexys Digital Payments in November 2024. For more details, see JPMorgan (2024).

[73] At the time of writing, JPMorgan is exploring as a proof of concept the launch of deposit token on Base, a Layer 2 network for Ethereum ("JPMD"). See JPMorgan (2025).

[74] For example, Franklin Templeton launches Franklin OnChain US Government Money Fund on the public chain Stellar, see Franklin Templeton (2023). BNP Paribas Asset Management issues natively tokenised MMF shares on Allfunds' private blockchain, see Ledger Insights' report on this.

[75] This refers to yield embedded directly into the token itself, and is distinct from mechanisms through which stablecoin holders may earn returns externally, such as: (1) depositing stablecoins into DeFi lending protocols ; (2) staking rewards offered by platforms; (3) rebasing mechanisms that adjust token supply.

[76] A yield-bearing version of USDS which earns interest via the Sky Savings Rate (SSR) smart contract managed by Sky, previously MakerDAO.

[77] Issued by Ondo Finance, backed by short-term US Treasuries and bank demand deposits to maintain a stable value while delivering returns for investors.

[78] Issued by Mountain Protocol, fully collateralised by US Treasuries. It is currently in wind-down following its acquisition by Anchorage Digital in May 2025.

CBDCs, in contrast, may or may not offer interest depending on the issuer's objectives and design choices. If yield-bearing money tokens offer attractive returns, they may disintermediate the traditional banking sector by drawing funds away from deposits or compress banks' margins, limiting their ability to rebuild equity after losses, which can harm bank valuations and stability (Chen et al., 2025). Similarly, when depositors have access to CBDC, run risk will increase in financial distress as deposits can be shifted rapidly into CBDC (Fernández-Villaverde et al., 2021). However, Brunnermeier et al. (2019) and Niepelt (2020) show that under appropriate pass-through or transfer policies, the central bank can neuralise the impact of CBDC on bank funding, and in principle, offset CBDC-induced run pressures. At the same time, in less competitive deposit markets, low-yield money tokens may stimulate competition, leading to higher deposit rates in the banking system (and thus higher deposit "betas"). Survey evidence from Bidder, Jackson, et al. (2024) shows that even without being yield-bearing, CBDCs can induce significant shift away from deposits in normal times. Hemingway (2025) shows that unremunerated CBDC can deliver positive welfare gain in an economy where cash usage is falling and online retail is rising because cash-like CBDC levels the playing field by giving online retailer a public money outside option. On pass-through to deposit rates, Hemingway (2023) models CBDC and deposits as imperfect substitutes with liquidity shocks and banks' reliance on interbank markets or costlier central bank standing facilities. He shows that a larger CBDC market share increases usage of standing facilities, which makes deposits less attractive to hold, and dampens pass-through to deposit rates through the novel liquidity risk channel. While these dynamics have been mostly studied in the context of CBDCs using structural models (Andolfatto, 2021; Whited et al., 2022; Chiu, Davoodalhosseini, et al., 2023), this is applicable to general yield-bearing money tokens. It should be noted that adjustable (possibly negative) interest rates on CBDCs can create an additional monetary policy tool (Bindseil, 2020), (Bindseil, 2022).

- *Programmability.* One core feature of stablecoins issued on permissionless blockchains is the ability to automate transfers via smart contracts. This supports conditional payments, escrow services, and composability with other DeFi protocols. Tokenised MMFs and deposits can also incorporate programmable features such as interest distribution or conditional transfers, but such features are generally constrained by regulatory requirements. Many central banks are piloting programmable features in CBDCs to increase payment efficiency and better support monetary policy goals. However, implementations vary widely depending on each jurisdiction's legal frameworks, technical choices (e.g., permissionless vs permissioned platforms, retail vs wholesale), and policy priorities such as privacy, user control or settlement efficiency. Programmability can help shape privacy design.[79] Rather than a binary choice between full anonymity (which can undermine tax compliance) and full transparency (which can distort consumer behaviour when privacy is valued), an asymmetric privacy design—private outgoing payments with verifiable incoming receipts for authorised parties—can be implemented via programmable verification (e.g., zero-knowledge proofs). This preserves consumer privacy while retaining auditability for tax purposes (Tinn, 2025).

Insight from Professor Lin William Cong, Cornell SC Johnson College of Business

Prof Cong highlights that stablecoins are uniquely positioned as private digital money, inheriting their payment and unit-of-account functions from the fiat currencies to which they are pegged. Unlike tokenised deposits (issued by banks) or MMFs (which are investment vehicles), stablecoins serve as a direct means of payment and compete with public digital money such as CBDCs, which adopt more centralised designs.

He envisions a future monetary system where stablecoins, CBDCs, tokenised deposits, and MMFs coexist – each playing complementary roles depending on use case, regulation, and user preference. To enhance resilience, especially in small open economies, he advocates diversifying the assets used to peg stablecoins. Pegs linked to baskets of G10 currencies, commodities, or real assets like real estate can reduce exposure to individual currency risks and unlock broader opportunities for tokenisation and trade. For a formal economic framework comparing these instruments, see Cong and Mayer (2025).

Recent research by Chiu and Monnet (2024) provides further insights on dynamics amongst different forms of tokenised money. First, tokenised money (such as deposits or CBDCs) offering moderate returns with limited privacy may crowd out stablecoins as direct payment instruments, particularly in the crypto sector.

[79] There is an increasing discussion on preserving privacy in digital payments. R. J. Garratt et al. (2021) examines the welfare impact of reductions in privacy in digital payments. Ahnert et al. (2025) discusses the trade-off between privacy and efficiency in the digital economy.

Second, if interest rates are sufficiently high, crypto institutions might choose to hold tokenised money as reserve collateral while continuing to issue stablecoins backed by those reserves ("crowding in"). Third, the analysis suggests that CBDCs tend to outcompete tokenised deposits in various roles because they are not subject to pledgeability constraints – that is, they can be more easily and widely used as collateral due to their direct central bank backing. These dynamics highlight how design choices around privacy, yield, and institutional trust shape the evolving roles of tokenised money both within and beyond DLT platforms.

These questions also invite reflection on the *velocity of collateral* – a concept popularised by Manmohan Singh – which refers to how often a given unit of collateral is reused in financial transactions. Through programmability and composability, tokenised money may increase the reusability of high-quality assets across financial arrangements. This could amplify the "crowding in" effect described above, enabling institutions to mobilise tokenised central bank or commercial bank liabilities as collateral with fewer frictions. At the same time, it raises concerns about systemic leverage and risk transmission that warrant close regulatory scrutiny.

5.3 Comparison with other money-like instruments

Drawing on the "money view" of Mehrling (2013) and Pozsar (2014), we can place money-like claims like stablecoins on a ladder that spans from "money" (final means of settlement) to "credit" (promises to pay). Figure 27 extends the illustration in the BIS paper by Aldasoro, Mehrling, et al. (2024) to reflect today's more complex financial system.[80] At the top sit central bank reserves and physical currency, as they settle all other claims with finality. Just below are onshore commercial bank deposits. They promise par convertibility and benefit from deposit insurance and lender-of-last-resort facilities. Next are offshore deposits such as eurodollars. These liabilities of offshore banks aim to clear at par, but rely on a private dealer network for settlement and access to US Federal Reserve's liquidity via central bank swap lines. As Aldasoro, Mehrling, et al. (2024) emphasize, maintaining the eurodollar at par is fundamentally a liquidity problem rather than a solvency one. Stablecoins come next. While they aim for maintaining the peg, they are not insured by deposit insurance schemes. Thus, their par promise is weaker than offshore bank deposits and sits lower in the hierarchy.[81] MMFs/ETFs provide near-money convenience but their value reflects net asset value (NAV) and they do not guarantee par redemption under stress.[82]. Finally, securities are promises to pay at maturity and therefore furthest from ultimate money.

Stablecoins share similarities with various traditional money-like instruments along this hierarchy, including bank deposits, eurodollars, money market funds (MMFs), and exchange-traded funds (ETFs).

First, like narrow banks, fiat-backed stablecoin issuers typically invest reserves in short-term safe assets such as Treasury bills, while offering no lending services (Williamson, 2024). This reduces credit and duration risk. Stablecoins also resemble bank deposits in the pre-deposit insurance era, which relied heavily on public trust and asset quality to avoid destabilising runs (Frost et al., 2020; Gorton and Zhang, 2023).

However, some stablecoin issuers have previously allocated reserves to riskier assets such as CP and CDs, or Bitcoin to enhance yields, as was the case with Tether (see Figure 15a). This exposes them to risks more commonly associated with MMFs. Oefele et al. (2024a) and Aldasoro, Cornelli, et al. (2025) argue that stablecoins resemble MMFs in their promise of redeemability at par and their holdings of short-term liquid assets. Ma et al. (2025) further formalise this view by showing that stablecoins function like MMFs in the primary market where peg stability is ensured via issuance and redemption, but resemble ETFs in the secondary market where prices fluctuate based on supply and demand.

This secondary market structure makes stablecoins less susceptible to classical run dynamics than MMFs. In the literature on MMF fragility (Kacperczyk et al., 2013; Sunderam, 2015; Parlatore, 2016; Schmidt et al., 2016), the fixed NAV structure of MMFs introduces a first-mover advantage during times of stress, leading to panic redemptions. In contrast, closed-end funds and ETFs are less runnable because their shares are tradable at market prices (Koont et al., 2022).

Anadu et al. (2023) and Oefele et al. (2024b) show that investors exhibit flight-to-quality/safety behaviour by reallocating from riskier to safer stablecoins during stress episodes, much like MMF investors. However, unlike MMFs, these reallocations mostly take place through on-chain secondary market trading within the

[80] The figure is implicitly a hierarchy of the US dollar system if we focus on dollar-denominated claims.

[81] This category mainly refers to fiat-backed stablecoins whose reserves are held either in US-regulated banks or, in the case of some issuers, as dollar instruments at offshore banks (Derivaux, 2024). Algorithmic stablecoins would sit even further down as they lack external backing.

[82] US government MMFs have a stable NAV under normal conditions, but this can break during stress.

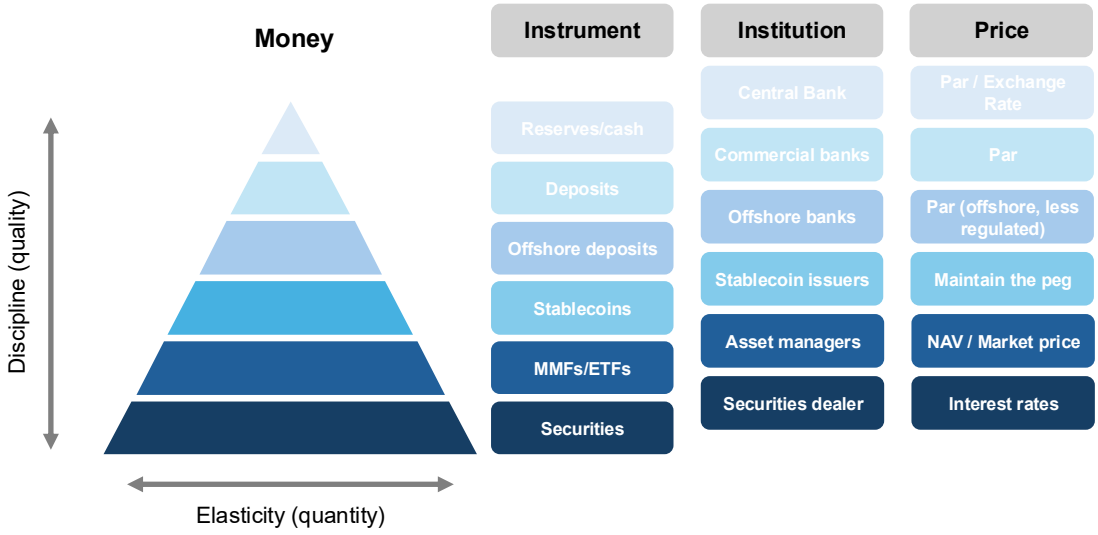


Figure 27: The hierarchy of money

Notes: This figure illustrates a hierarchy of money based on Mehrling (2013) and Aldasoro, Mehrling, et al. (2024).

same blockchain, rather than by redeeming tokens with the issuer, so they generate less redemption-driven liquidity pressure. Bouveret et al. (2022) also observe that stablecoins rely on liquidity transformation like MMFs, which could therefore leave them vulnerable to run-like dynamics. Nonetheless, Aldasoro, Cornelli, et al. (2025) show that despite stablecoin balance sheet structures closely resembling those of MMFs, their reactions to crypto and US monetary policy shocks are different. Moreover, Aldasoro, Mehrling, et al. (2024) argue that stablecoins behave more like eurodollar deposits than insured bank deposits or tightly regulated MMFs/ETFs as both exist outside the onshore dollar settlement layer.

5.4 Principles for effective stablecoin design

An effective stablecoin design rests primarily on the stabilisation mechanism used. Bearing in mind that volatile digital currencies such as BTC and ETH are used alongside stablecoins in payments and trading, policymakers may enable issuers to offer a range of currencies that have a risk return profile that go from a stablecoins with strict pegging mechanisms to more volatile coins.

Hence, rather than imposing a specific type of collateral such as government bonds or specific algorithms, it may be appropriate to allow coin issuers to provide a range of coins in order to increase the diversity of coin risk-return profiles. There is a vast discrepancy between the largest current stablecoins that have maintained a peg with the US dollar and the highly volatile crypto currencies. Hence, policies may adopt labels that clearly indicate risk/return profile of stablecoins and money market coins, with the labels determined by specific collateral structures and the type of algorithms used, so that users understand they may face a trade off between a stablecoin that is largely pegged to, say, a fiat currency or a leading commodity and that is expected to provide a return close to its underlying collateral and a less stable coin that may provide a higher expected return.

Optimal governance policies for stablecoins must ensure price stability, trustworthiness, financial integrity, and systemic safety. The best policies vary by stablecoin type, with several core governance principles that apply across all designs.

Insight from Professor Christian Catalini, MIT Cryptoeconomics Lab

Prof Catalini argues that well-designed stablecoins – backed by HQLAs, adequate capital buffers, and robust legal protections – can safely function as high-velocity media of exchange. He supports a narrow banking model for stablecoins and emphasises that tokenisation itself is not the driver of financial instability; rather, it is the speed and connectivity of modern payment systems that accelerate crises, as seen in the SVB episode.

He also notes that stablecoins may foster dollarisation in weak-currency economies but could incentivise local innovation and digital capital controls such as automatic conversions or balance limits.

Below is a structured breakdown of optimal governance policies based on academic research, regulatory guidance, and financial infrastructure best practice.

Centralised Stablecoins

1. **Transparency and Disclosure.** Regular, independent audits of reserves (as implemented by Circle for USDC and Paxos for USDP) build trust. Disclosure of collateral composition, redemption terms, and governance structures should be mandatory.
2. **Robust Collateral and Risk Management.** Reserves should be held in short-term, high-quality liquid assets such as Treasury bills or gilts, fully segregated in bankruptcy-remote structures. Ongoing monitoring of collateral adequacy and liquidity management frameworks are essential to meet redemption requests under stress.
3. **Redemption and Convertibility Guarantees.** Users should have clear and enforceable rights to redeem tokens at par. Strong liquidity buffers are needed to support 1:1 convertibility, even during stress scenarios.
4. **Regulatory Compliance and Legal Clarity.** Centralised issuers must comply fully with AML/CFT standards and sanctions regimes, and provide legal clarity about the rights of stablecoin holders in insolvency (e.g., whether users are senior claimants).
5. **Crisis Management Protocols.** Contingency frameworks, including access to emergency liquidity and coordination with regulators, should be pre-defined to mitigate systemic risk during stress events.

Decentralised Stablecoins

1. **Credible and Accountable Governance.** Protocols such as MakerDAO rely on token-holder voting (MKR) to make decisions on collateral, issuance, and risk management. Safeguards against governance attacks, collusion, and voter apathy are essential to prevent instability.
2. **Robust Collateral and Automated Liquidation.** Crypto-backed designs typically require over-collateralisation (e.g., DAI's 150% ETH collateral requirement), with automated liquidation mechanisms such as auctions or penalty fees. These must be carefully calibrated to avoid amplifying market stress in downturns.
3. **Oracle Robustness.** Reliable price feeds are critical for maintaining collateral ratios. Multiple independent oracles, aggregation mechanisms, and fallback logic are needed to mitigate manipulation risks, especially during volatile conditions.
4. **Price Stability Mechanisms.** Decentralised stablecoins use algorithmic or hybrid designs to manage supply and demand. Mechanisms such as rebasing or bonding curves can support peg stability, but empirical evidence (e.g., Terra-LUNA's collapse) highlights the fragility of purely algorithmic approaches.
5. **Emergency Protocols.** Pre-defined emergency shutdowns, governed by multi-signature arrangements or DAO consensus, provide a last resort for containing crises.

Cross-Cutting Principles

1. **Balance Between Centralisation and Decentralisation.** Centralised governance offers efficiency, regulatory alignment, and clear accountability, but can limit diversity of participation in decision-making. Decentralised governance can foster innovation, transparency and more cooperative models of oversight, but may introduce coordination challenges. Hybrid approaches may be optimal, combining decentralised mechanisms with centralised oversight of critical functions.
2. **User Protections and Dispute Resolution.** Users should benefit from clear processes for handling disputes, fraud claims, and complaints. Options include clearly defined redress mechanisms or industry-led protection schemes that enhance confidence without distorting competition.
3. **Systemic Safety and Financial Integrity.** Both centralised and decentralised models must ensure compliance with AML/CFT standards, maintain operational resilience, and manage potential systemic implications as adoption grows.

These governance principles highlight that while centralised and decentralised stablecoins face distinct challenges, they share a common need for transparency, resilience, and user trust. Well-calibrated frameworks can mitigate systemic risks while preserving the innovative potential of stablecoins.

Insight from Professor Andreas Veneris, University of Toronto

Prof Veneris outlines several critical objectives for stablecoin policy design:

- Robust reserve frameworks, including clear auditing practices and potentially requiring reserve accounts at central banks.
- A "regulated DeFi" ecosystem that ensures consumer protection, incorporating KYC procedures and AML compliance.
- Clarifying whether stablecoins offer interest and are covered by deposit insurance, similar to traditional bank accounts.
- Addressing the foundational question: Are stablecoins part of a new banking paradigm, or are they simply instruments for payment infrastructure?
- Ensuring data protection for users, aligned with regulations (GDPR).
- Establishing interoperability with CBDCs, as these emerge globally.

He stresses that effective policy must secure user assets and also clarify the evolving role of stablecoins in the broader financial system.

5.5 Implications for regulators and policymakers

The regulation of stablecoins raises a first-order question about whether robust market design can ensure peg stability and resilience, or whether formal regulatory intervention is necessary. On one hand, a well-designed private mechanism could in theory sustain stability without regulatory oversight. For instance, Carapella (2025) show that a voluntary loss mutualisation fund with participation cost can eliminate speculative equilibria and sustain peg credibility in the absence of formal regulation. Routledge et al. (2022) propose a dynamic exchange rate peg adjusting endogenously to market conditions, which may prevent runs and remove the multiplicity of speculative attack equilibria.

Nevertheless, several frictions point to the need for regulation. Issuers have incentives to default on their redemption promises and divert reserve assets into less liquid but profitable portfolios (Carapella, 2025). Coordination failures in redemption can exacerbate fragility even when fundamentals are sound, simply through self-fulfilling expectations of failure (Ma et al., 2025).

Regulatory frameworks should therefore aim to address both solvency and run risk. Key priorities include enforcing redemption rights, ensuring reserve transparency, and setting capital and liquidity buffers. One approach is to require issuers to become subsidiaries of insured depository institutions, or to simply impose bank-like regulatory frameworks on them. Goel et al. (2024) find that a combined capital buffer of 1% and

a 30% liquidity requirement lowers default probability of a stablecoin issuer to around 0.05bps per year and caps the expected impact on Treasury yields at roughly 65bps. Liao, Fishman, et al. (2024) propose a Token Capital Adequacy Framework (TCAF) that accounts for both financial and technological risks. They show that applying TCAF to previous stress episodes would have absorbed losses more effectively than fixed leverage ratios.

Effective regulation must also consider system-wide externalities. Bertsch (2023) argue that stablecoin fragility is not just an issuer-specific problem but has macro-prudential dimensions. In particular, excessive stablecoin adoption driven by underpriced liquidity and network effects can amplify financial instability through composition effects, that is, a shift towards more speculative or opaque stablecoins. This will undermine the resilience of the ecosystem. Regulation should thus account for contagion risk, not merely idiosyncratic failure.

Additional channels reinforce the macro-prudential view. First, widespread stablecoin adoption can displace traditional bank deposits and redirect liquidity toward Treasury bill portfolios, altering banks' funding structure and constraining credit creation. Liao (2022) document that USDC maintains a Basel-III Liquidity Coverage Ratio (LCR) above 200%, far exceeding the liquidity requirement for a typical bank. This implies a non-trivial demand pressure on safe assets. Second, Kim (2025) show that if stablecoins keep expanding in market size, their cumulative demand for Treasuries could exert non-linear upward pressure on short-term yields. This would tighten bank balance sheet constraints and ripple through credit markets.

Insight from Professor Christian Catalini, MIT Cryptoeconomics Lab

Prof Catalini calls for adaptive, risk-sensitive regulation that reflects the unique attributes of digital assets. A "same risk, same rules" approach should avoid shoehorning stablecoins into legacy frameworks while ensuring AML/CFT compliance and consumer protection.

He further suggests that regulators allow diverse tokenised assets, such as stablecoins and tokenised MMFs, to coexist and compete. Each instrument has distinct strengths: stablecoins are suited for fast payments, while tokenised MMFs offer yield and serve as a store of value. Market-driven experimentation should guide the evolution of digital financial infrastructure.

6 Conclusion

Stablecoins have evolved from niche instruments for crypto traders into building blocks for the emerging architecture of digital finance. Their rapid growth has created new linkages with banks, money markets, and payments infrastructure, while also revealing vulnerabilities around peg stability, redemption mechanisms, and governance. The UK, despite its ambition to be a global hub for financial innovation, has fallen behind its peers in implementing a coherent regulatory framework for these instruments. This lag is also impairing the development of sterling-denominated stablecoins in the national market.

The analysis in this report highlights two strategic imperatives. First, stablecoins should be recognised not merely as a payments innovation but as part of the wider category of tokenised money, with implications for financial stability, monetary sovereignty, and government debt markets. Second, UK policymakers should reconcile core monetary principles such as singleness of money and settlement finality with the practical realities of digital assets. The perspectives presented in this report show that regulatory frameworks can accommodate these principles without suppressing competitiveness and innovation.

For the UK, the path ahead carries both risks and opportunities. Continued uncertainty and delays risk entrenching reliance on offshore dollar-linked systems, eroding sterling's role in international capital flows, and reducing the UK's ability to shape emerging financial architecture. In contrast, a well-calibrated regime could support competitiveness, provide safe domestic alternatives, and position the UK as a credible jurisdiction for high-quality issuers.

Stablecoins will not replace banks or public money, but they are set to complement them as an integral part of modern financial infrastructure. The challenge for policymakers is to integrate them in ways that safeguard resilience, protect consumers, and reinforce the UK's global role in finance.

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Appendix

A Tokenisation: A Global Trend

The digital representation of traditional assets is advancing rapidly, driven by technological adoption, institutional experimentation, and regulatory engagement. This section defines tokenisation as a global wave of financial innovation, introduces stablecoins as a form of tokenised money, and discusses regulatory and industry developments across the United Kingdom, the United States, Singapore, and Hong Kong.

A.1 Definitions and scope

There are nearly as many definitions of "token" and "tokenisation" as there are kinds of tokens in circulation, a reality that continues to cause confusion across policy, regulatory, and market domains. It is not always clear whether tokenisation refers exclusively to the issuance of assets on DLT platforms, or whether it also includes representations in centralised programmable databases. The Bank for International Settlements (BIS), for example, defines a token as a digital representation of a traditional asset recorded in a database and capable of embedding both information and functionality. Accordingly, tokenisation is the process of generating and recording such a representation on a programmable platform.

In monetary and legal discourse, the term *token* has traditionally referred to a bearer instrument, where possession equates to ownership. This legacy meaning creates ambiguity in DLT contexts, which are inherently ledger-based, even if they operate without central recordkeepers or traditional intermediaries. Tokens on DLT platforms are best described as hybrids: they enable bearer-like transferability through private key control, yet rely on account-based verification and consensus-driven settlement.

Even among international standard setters, the vocabulary is inconsistently applied. The term "cryptoasset", for instance, is used sometimes narrowly to describe non-referencing tokens like bitcoin and ether, and other times more expansively to include tokenised representations of traditional instruments (such as stablecoins). Similar ambiguity surrounds the term "virtual currency", which is often used interchangeably.

Further confusion stems from the term "digital asset". This often refers broadly to all forms of digitally represented value, ranging from cryptoassets and tokenised securities to non-fungible tokens (NFTs), but is also applied to digitised traditional assets that do not rely on DLT. This conflation obscures what is genuinely new about tokenisation.

Tokenisation models differ in the degree of intermediation and off-chain linkage that they require. Some tokens are backed by legal claims and supported by off-chain custodial or registry arrangements[83]. Others embed rights and obligations entirely within smart contract logic. These design choices carry significant implications for regulatory treatment and influence the extent to which systems must continue to depend on traditional infrastructure, legal enforcement mechanisms, and off-chain processes to establish ownership and settlement finality.

Definitional clarity is not merely a semantic exercise. It shapes how regulation is constructed, how market activity is measured, and how effectively policy debates can unfold. We recognise that no single definition can fully capture the technical and legal complexities involved. Nonetheless, we endeavour to apply a consistent and practical framing throughout this report. In particular, we use the term tokenisation to refer to the issuance of traditional assets on a DLT platform, regardless of whether an off-chain register or representation is retained.

Table A1 below, drawn from the FSB's work on the subject, illustrates how tokenised assets can be categorised based on the nature of the reference asset, ranging from settlement assets (such as commercial bank money and stablecoins), to non-settlement financial instruments (such as money market funds and corporate bonds), and physical non-financial assets (such as real estate or gold). This classification helps explain how different types of reference assets give rise to distinct legal structures, operational dependencies, and regulatory obligations.

[83] The off-chain representation model is referred to as a "digital twin" in OECD (2020).

Table A1: Tokenised asset categories by reference asset

Reference asset	Example of reference asset	Description
Settlement asset	Commercial bank money	Tokenised deposits
	Other privately issued money	Stablecoins that are used for settlement
Non-settlement financial asset	Money market fund (MMF)	Tokens representing a claim on a money market fund investing in financial assets such as Treasury bills
	Corporate equity/bond	Tokens representing a corporate equity or bond on DLT
	Real estate investment trust (REIT)	Tokens representing a claim on a real estate investment trust
Non-financial (physical) asset	Real estate	Tokens representing a fractional share of a financial interest in property
	Gold	Tokens representing a fractional share of the physical commodity (as opposed to a fund based on the commodity)

As a final note, we discourage the use of the term "real-world assets" (RWA), now common in industry discourse. While "real assets" is a well-defined financial category, typically referring to tangible holdings such as property or commodities, the "real-world" label wrongly suggests that non-traditional assets issued and settled on-chain are somehow less legitimate or grounded. Given the merging of digital and traditional infrastructures, the more meaningful distinction lies in whether a token references an off-chain legal or physical claim, not whether it is "real".[84]

A.2 Platform architectures and functional capabilities

Beyond overarching definitions, it is equally important to examine the architectural and functional characteristics of the platforms on which tokenised assets are issued and transacted.

Tokens can be issued on permissionless DLT platforms, such as Ethereum, or on permissioned networks like JP Morgan's Kinexys. While Ethereum enables open participation, permissioned networks restrict access to authorised entities. Terms like "open", "public", and "permissionless" are sometimes used interchangeably, and at other times treated as distinct or even orthogonal. As system architectures grow more complex, it is more useful to focus on *capabilities*: who can do what, and at which layer – network or application? Many so-called permissionless platforms now incorporate permissioning features such as whitelists, blacklists, or transfer restrictions. Conversely, some permissioned systems rely on public blockchains for functions like timestamping or messaging. These hybrid models preserve programmability while embedding access and compliance controls off-chain.

On programmable platforms, tokens store relational data, such as ownership, value, and transaction history, and can embed execution logic through smart contracts. These contracts are scripts that define and constrain how tokens can be transferred. The extent of automation depends on how much off-chain input or manual triggering is required. This architecture supports two foundational levers in financial system design: programmability and composability (BIS, 2022a; Aldasoro, Doerr, et al., 2023).

- *Programmability* allows for the automatic execution of predefined actions – such as payments, transfers, or compliance checks – when certain conditions are met.
- *Composability* enables the combination of multiple tokens and smart contracts into more complex financial arrangements that would be difficult to construct or scale using traditional infrastructure.

It is important to recognise that automation and financial structuring are not inherently novel. Tools such as straight-through processing (STP), asset fractionalisation, and securitisation have long enabled similar

[84] Academic references on tokens include (Chemla and Tinn, 2025).

outcomes. What distinguishes tokenisation is its ability to deliver these features through open, programmable platforms that reduce institutional friction and enhance coordination. Instead of upgrading individual systems in isolation, tokenisation offers a path for financial infrastructure to evolve collaboratively at the network level.

At the same time, tokenisation introduces new risks, including vulnerabilities in smart contract code, complexity and interdependence of layered systems, weaknesses in custody arrangements, and failures in oracle infrastructure (FSB, 2024). These new risks merit special consideration by policymakers, with a balance being struck between consumer protection, innovation, and business practice.

A.3 Market size and main segments

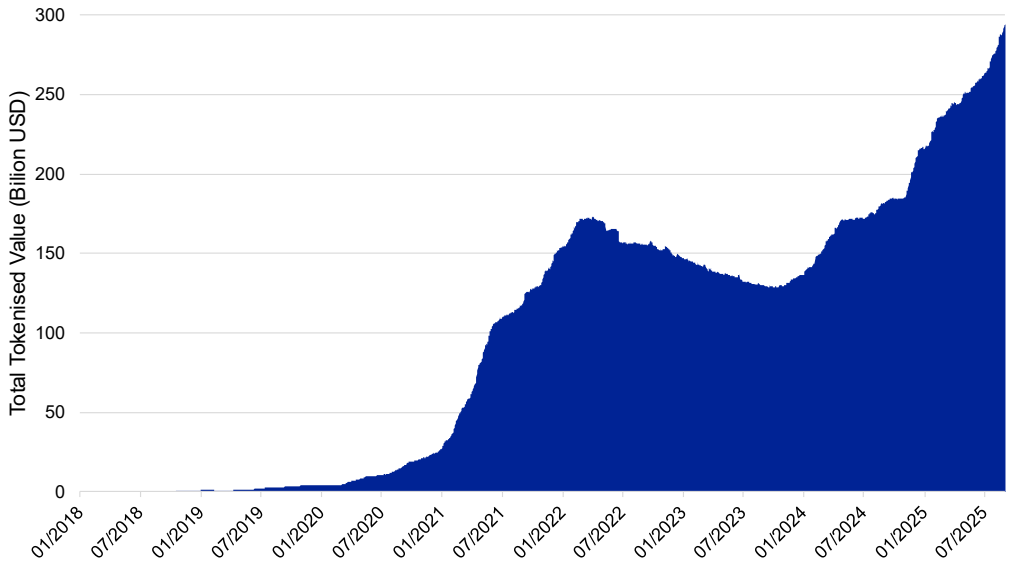


Figure A1: Evolution of tokenisation market capitalisation

Notes: This figure shows the evolution of total tokenised market value, including both total tokenised real-world assets and stablecoins. The data are sourced from RWA.xyz, as of September 3, 2025.

Market capitalisation. Figure A1 shows the evolution of tokenised market value from November 2017 to September 2025. According to RWA.xyz, as of September 2025, there are 272 tokenised asset issuers, with a combined on-chain market capitalisation of approximately $28 billion in real-world assets, and the total value of stablecoins reaching $275 billion. Besides, industry practitioners also hold an optimistic outlook for the future of tokenisation. According to McKinsey & Company (2024), the total market capitalisation of tokenised assets could reach approximately $2 trillion by 2030.[85]

Tokenised assets. Table A2 presents a breakdown of tokenised assets by category, ranked by market capitalisation as of September 2025. Stablecoins dominate the market, accounting for almost 93% of total capitalisation. Institutional Funds and US Treasury securities follow, with 5.99% and 2.50% respectively. Other categories, including stocks, Non-US Treasury securities, corporate bonds, and real estate, each contribute less than 1%. Most tokenised value is concentrated in low-risk, highly liquid assets. The presence of tokenised private and alternative assets remains marginal. This distribution indicates that market participants currently prioritize stability and liquidity over diversification across asset types.

A.4 Regulatory and industry pilots

United Kingdom Table A3 provides an overview of key tokenisation frameworks and pilots. The UK has launched several high-profile tokenisation initiatives, supported by regulatory efforts. In late 2024, HM Trea-

[85] This excludes cryptocurrencies such as Bitcoin and stablecoins like Tether.

Table A2: Summary table of tokenisation: by type of tokenised asset

Rank	Token Type	Market Cap (billion USD)	Market Share (%)
1	Stablecoins	$273.88	93.04%
2	Institutional Funds	$17.62	5.99%
3	US Treasury Securities	$7.35	2.50%
4	Commodities	$1.90	0.65%
5	Stocks	$0.34	0.11%
6	Non-US Treasury Securities	$0.33	0.11%
7	Corporate Bonds	$0.26	0.09%
8	Real Estate	$0.03	0.01%

Notes: This table provides a snapshot of the market capitalisation and category breakdown of tokenised assets as of September 3, 2025. "Institutional Funds" include hedge funds, venture capital, private equity, private credit to businesses, and other alternative investment vehicles. The data are sourced from RWA.xyz.

sury confirmed launching a pilot to deliver a Digital Gilt Instrument (DIGIT).[86] This pilot issues UK government bonds based on DLT. It aims to test faster settlement and new market features.

The UK's Digital Securities Sandbox (DSS)[87] framework facilitates tokenisation pilots. Under the Financial Services and Markets Act 2023 (FSMA 2023), the DSS gives the Financial Conduct Authority (FCA) and BoE the authority to waive or adjust certain regulatory requirements for sandbox participants testing DLT-based market infrastructure. The sandbox opened for applications in Q4 2024, and the first approvals were given to projects like Montis (a blockchain-based central securities depository), ClearToken (a clearinghouse for tokenised assets), and BPX Markets (a tokenised real estate securities exchange). In summary, the UK is moving rapidly with pilots for tokenised assets under a tailored sandbox regime.

Singapore Singapore has been a leader in tokenisation pilots, driven by the Monetary Authority of Singapore in partnership with industry. Project Guardian[88] is MAS's flagship initiative to explore the tokenisation of financial assets in a regulated setting. It is structured around three areas of tokenisation experimentation: (i) asset and wealth management, (ii) fixed income, and (iii) foreign exchange. In the asset and wealth management stream, Franklin Templeton is piloting a tokenised money market fund using Singapore's Variable Capital Company (VCC) structure. In the fixed income category, ADDX, ANZ, and Chainlink Labs are working on a cross-border pilot involving tokenised commercial paper. Within foreign exchange, Citi and Fidelity International are simulating a digital money market fund integrated with an embedded FX swap. Interestingly, the UK's FCA is formally involved in Project Guardian as a regulatory collaborator, particularly within the asset and fund tokenisation workstream. The FCA has described this as part of its broader strategy to advance its fund tokenisation roadmap.[89]

In addition to Project Guardian, Singapore has launched several notable pilots. For example, Project Orchid[90] explores retail digital money and embedded programmability. Within Orchid, the Purpose Bound Money (PBM)[91] pilot tests programmable, purpose-specific money. Meanwhile, MAS Sandbox Plus[92] enables tokenisation of private market securities (e.g., REITs), and Project Ubin+[93] investigates cross-border tokenised settlement and foreign exchange, including wholesale CBDC. Taken together, these initiatives position Singapore as a global leader in the regulatory and technological advancement of asset tokenisation.

[86] See HM Treasury press release, which announced the launch of a pilot DIGIT using DLT to demonstrate the government's commitment to innovation in financial services.
[87] For more information about the DSS, see the FCA' website. It outlines the stages of the DSS participation, the types of digital securities in scope, and guidance on how to apply.
[88] See MAS's website for further information on Project Guardian.
[89] For further information, see the FCA's statement.
[90] See MAS's website for further information on Project Orchid.
[91] See its website for further information.
[92] See MAS's website for further information on Sandbox Plus.
[93] See MAS's website for further information on Project Ubin+.

Table A3: Tokenisation frameworks and pilots: A comparative snapshot of global leaders

Country	Framework/Programme	Pilot/Projects Examples
United Kingdom	Digital Securities Sandbox (DSS)	Digital Gilt Instrument (DIGIT) Digital securities depository (Motis) Central clearing for tokenised assets (ClearToken) Tokenised real estate securities exchange (BPX Market)
Singapore	Project Guardian MAS Sandbox Plus Project Ubin+ Project Orchid	Asset & wealth management (e.g., Franklin Templeton tokenised MMF) Fixed income (e.g., ADDX/ANZ/Chainlink tokenised commercial paper) Foreign exchange (e.g., Citi/Fidelity digital MMF with FX swap) Tokenised private market securities (e.g., REITs) Cross-border tokenised settlement & FX (Wholesale CBDC) Purpose Bound Money (PBM)
Hong Kong	Project Evergreen Project e-HKD+ Project Inthanon-LionRock Project mBridge Project Ensemble	Tokenised green bond issuance by the Hong Kong Government e-HKD phase 1 and phase 2 pilots Tokenised deposit use cases (real estate settlement, merchant payments) CBDCs for cross-border payments Multilateral CBDC cross-border payments and FX trials Tokenised asset settlement using wholesale CBDC (wCBDC)
United States	Federal Reserve NYIC (Wholesale Digital Asset Experiments) Digital Dollar Project (Private Non-profit CBDC Pilots) DTCC Digital Asset Initiatives (Post-Trade Tokenisation)	Project Cedar (FX wholesale CBDC pilot) Regulated Liability Network (tokenised deposit pilot with 9 US banks) Project Agorá (Tokenised central/commercial bank money research) Project Lithium (Testing wholesale CBDC for securities settlement) Western Union Pilot (Retail cross-border remittances) Project Ion (DLT-based equities settlement platform) Project Whitney (Tokenising private market securities on public blockchain) Tokenised Treasuries Pilot (Tokenised Treasuries as intraday margin collateral)

Hong Kong Hong Kong marked its entry into the tokenisation space by issuing the world's first tokenised government green bond. In February 2023, the Hong Kong government, through the Hong Kong Monetary Authority (HKMA), sold HK$800 million of tokenised green bonds to institutional investors.[94] In parallel, the HKMA has been actively piloting a retail central bank digital currency, the e-HKD. In Phase 1, the HKMA selected 14 pilot projects to test retail CBDC use cases.[95] By early 2024, Phase 2[96] was launched to experiment with the technology under real-world conditions. Furthermore, Hong Kong also plays a central role in wholesale CBDC initiatives.[97] It joined Project Inthanon-LionRock with the Bank of Thailand to explore the use of CBDCs for cross-border payments. It later became a founding participant in Project mBridge, working with the central banks of China, Thailand, and the United Arab Emirates to test multi-CBDC arrangements. More recently, it launched Project Ensemble to build a wholesale CBDC infrastructure that supports the settlement of tokenised financial assets.

Insight from Myra Yin, Chairwoman, Tensant Securities Ltd.

Myra Yin highlights the significance of Hong Kong's Project Ensemble in the development of tokenised asset markets. She notes that Project Ensemble positions Hong Kong as a leading jurisdiction for these innovations by fostering regulatory clarity and developing infrastructure for interoperability. These efforts support the growth of tokenised assets and build trust among market participants.

United States The Federal Reserve Bank of New York's Innovation Center (NYIC) launched Project Cedar[98] in 2022 as a wholesale CBDC experiment for cross-border FX settlement. NYIC also led a 12-week Regulated Liability Network (RLN)[99] trial with major US banks to test tokenised deposits and shared DLT infrastructure for interbank payments. In 2024, the New York Fed joined Project Agorá,[100] a global research initiative to explore the tokenisation of central and commercial bank money for cross-border transactions.

Moreover, public–private collaboration on tokenisation is evident in the Digital Dollar Project (DDP).[101]

[94] See HKMA's official announcement on the inaugural tokenised green bond offering.
[95] See HKMA's press release on the e-HKD Pilot Programme Phase 1 Report.
[96] See HKMA's announcement on the launch of Phase 2 of the e-HKD Pilot Programme.
[97] See HKMA's webpage on its central bank digital currency initiatives.
[98] See NY Fed's Project Cedar webpage for further information on Project Cedar.
[99] See NY Fed's webpage for further information on Regulated Liability Network (RLN).
[100] See NY Fed's announcement on joining the Project Agorá initiative.
[101] See the Digital Dollar Project's website for an overview of its initiatives.

DDP's Project Lithium[102] pilot with the Depository Trust and Clearing Corporation (DTCC) in 2022 demonstrated that tokenised securities could be settled atomically. In 2023, DDP partnered with Western Union[103] on a retail CBDC pilot, simulating cross-border remittances with a "digital dollar" token.

Additionally, industry infrastructure providers have run their own tokenisation pilots under regulatory oversight. For example, the DTCC's Project Ion[104] went live in 2022 as a distributed ledger platform for accelerated equity settlement. Earlier, DTCC's Project Whitney (DTCC, 2020) explored the feasibility of tokenising private market securities on a public Ethereum network. In mid-2024, DTCC and several major banks completed a pilot[105] using tokenised US Treasury bonds as collateral for margin calls.

In 2025, the Commodity Futures Trading Commission (CFTC) advanced tokenisation efforts by hosting digital asset roundtables[106] to explore tokenised non-cash collateral. Acting Chair Caroline Pham engaged industry leaders and emphasised CFTC's role as an observer in real-world trials to inform future regulation.[107]

B Overview of regulation in key jurisdictions

This section reviews the development and implementation of regulatory frameworks in key jurisdictions. The landscape is evolving rapidly, and while not exhaustive, the analysis reflects our best effort to capture the most significant developments over time.

B.1 United Kingdom

Motivation The UK's stablecoin regulation aims to ensure financial stability, safeguard consumers, address AML/CFT risks, and support innovation.

Firstly, UK authorities are focused on preventing stablecoins from threatening the broader financial system. Officials recognise that certain stablecoins could gain widespread use as alternative means of payment (e.g., HM Treasury, 2021; HM Treasury, 2023a). The idea of a "global stablecoin", such as Facebook's 2019 Libra proposal, demonstrated how quickly an unregulated digital currency could scale. This raised concerns about risks to monetary sovereignty and financial stability. If stablecoins become large enough to affect the economy, their failure or loss of value could have systemic effects (HM Treasury, 2022a). The BoE has warned that large-scale stablecoin use (especially in critical wholesale payments) might introduce stability risks far greater than those in traditional payment systems (BoE, 2023). This situation creates the need for safeguards similar to those for traditional money.[108] UK authorities have clearly stated a "strong case" for bringing stablecoins used as money into the regulatory perimeter. This is to maintain stability and trust in the financial system (HM Treasury, 2021).

In addition, protecting consumers and investors is a major regulatory priority and a central motive in the UK's stablecoin regulatory plans. Previously, stablecoins lay outside traditional regulation, so consumers lacked the safeguards they enjoy with bank deposits or e-money (HM Treasury, 2021). Recent events, such as the Terra UST crash in crypto markets, highlighted the risks users face when stablecoin arrangements lack oversight. Regulators worry that without standards for reserves, capital, and redemption rights, a stablecoin could fail suddenly. This would harm consumers and merchants who depend on it. By regulating stablecoins, the UK aims to ensure issuers hold adequate reserves and liquidity, and that consumers can redeem their coins at par (HM Treasury, 2021; FCA, 2023; FCA, 2025a; FCA, 2025c).

Preventing illicit use of stablecoins is another key driver for regulation. UK officials recognise that, if left unregulated, stablecoins and other crypto-assets could become channels for money laundering, fraud, or terrorist financing (FCA, 2023; BoE, 2023), especially given their pseudonymous, borderless nature. Bank of England leaders have explicitly flagged that unregulated stablecoins could facilitate large-scale illicit activity. Governor Andrew Bailey cautioned that private stablecoins operating outside the regulated system might become a "money launderer's dream", being used for fraud and money laundering in ways difficult for author-

[102] See DTCC's announcement on findings from its pilot with the Digital Dollar Project.
[103] See the Digital Dollar Project's announcement on its retail CBDC pilot with Western Union.
[104] See DTCC's announcement on Project Ion going live for equity settlement using DLT.
[105] See Ledger Insights' coverage of DTCC's pilot using tokenised Treasuries for collateral.
[106] See Morgan Lewis's report on unified digital asset framework.
[107] See Mitrade's report on CFTC participation in tokenisation pilots.
[108] See Reuters' report on the Bank of England's call for stablecoin payments to be regulated like traditional bank payments.

ities to trace.[109] By bringing these assets into the regulatory framework, the UK intends to cut off avenues for financial crime and uphold the integrity of its financial system.

Moreover, the UK government also sees an opportunity to foster innovation and maintain competitiveness by providing regulatory clarity. In April 2022, the HM Treasury expressed its ambition for the UK to become a "global cryptoasset technology hub".[110] By establishing a clear framework now, officials aim to give fintech firms and investors the confidence to "invest, innovate and scale up"[111] in the UK over the long term. Officials believe that stablecoins, if well-regulated, can offer efficiency gains in payments and settlements,[112] as well as provide greater consumer choice. The FCA has stressed the need to strike a balance: supporting beneficial innovation and competition in digital finance while maintaining high standards of market integrity and public trust.[113] In practice, this balanced approach means the UK's rules seek to accommodate new stablecoin-based payment services and business models, without compromising on financial stability or consumer protection. This pro-innovation stance is part of a broader strategy to keep the UK's fintech sector globally competitive and to attract crypto investment and talent under a regulated umbrella.

Major regulatory events and developments The following discusses the UK's shift from a phased regulatory approach to a unified, single-stage framework. We further summarise the major events and developments for UK stablecoin regulation in Figure A2.

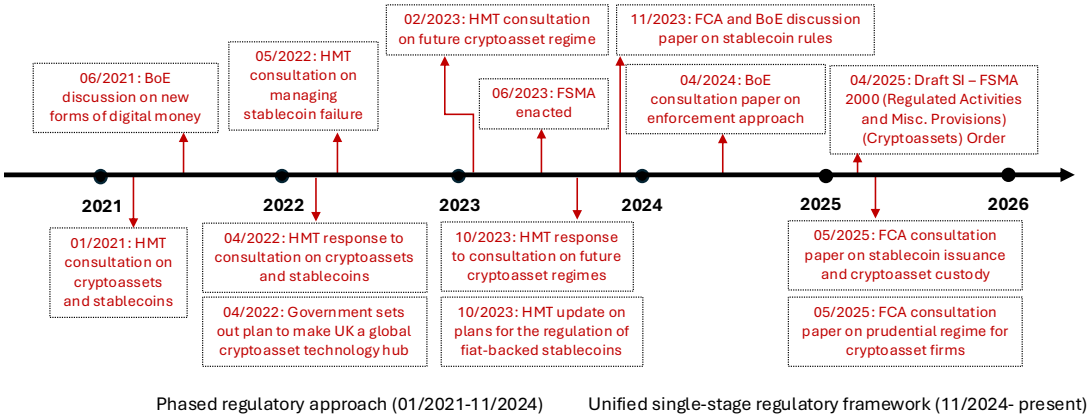


Figure A2: Major events and developments of UK stablecoin regulation

1. Phased regulatory approach (Jan 2021 – Nov 2024):

Initially, UK regulators have adopted a *phased approach* to cryptoasset regulation. Phase 1 covers fiat-backed stablecoins, which the UK refers to as "Digital Settlement Assets (DSAs)" when used for payments. It focuses on those pegged to one or more fiat currencies and backed by corresponding reserves. The government decided not to include algorithmic stablecoins or those backed by non-fiat assets in Phase 1, as those will be addressed later under the broader regime. Phase 2 will expand the regulatory perimeter to a wider set of cryptoassets and activities beyond fiat-backed payment stablecoins. In Phase 2, the government intends to regulate unbacked cryptoassets (e.g., Bitcoin) and other types of stablecoins (e.g., algorithmic or commodity-backed tokens) and bring relevant crypto services (trading venues, lending, etc.) into the regulatory framework. This two-step strategy was articulated in official consultations (HM Treasury, 2021; FCA, 2023; HM Treasury, 2023a), with Phase 1 seen as a way to address the most payment-relevant stablecoins, while Phase 2 allows more time to develop rules for the rest of the crypto sector.

- *Jan 2021 – HM Treasury Consultation on Cryptoassets and Stablecoins.* In January 2021, the HM Treasury launched a public consultation on the UK's regulatory approach to cryptoassets (HM Treasury, 2021), with

[109] See Governor Andrew Bailey's interview with The Times, where he stated the risks associated with stablecoins.
[110] See HM Treasury's announcement outlining its ambition to make the UK a global cryptoasset technology hub.
[111] See Chancellor of the Exchequer Rishi Sunak's statement outlining the government's intent to enable firms to "invest, innovate and scale up" in the UK.
[112] See FCA's press release stating that stablecoins have the potential to improve payment efficiency and offer benefits for cross-border transactions.
[113] See David Geale's statement that the FCA aims to support innovation while ensuring market integrity and trust, as part of its approach to regulating cryptoassets.

a focus on payment stablecoins. This was the government's first detailed proposal to bring stablecoins into the regulatory perimeter. The document outlined the government's view that certain stablecoins used as a means of payment could bring significant benefits but also pose risks. It sought feedback on including such stablecoins within the regulatory perimeter. The consultation argued there was a "strong case" to regulate stablecoins that could be widely used for retail or cross-border payments, treating them similarly to e-money or other payment instruments. It also called for evidence on broader cryptoasset uses.

- *Jun 2021 – BoE Discussion Paper "New Forms of Digital Money"*. In parallel, the BoE published a Discussion Paper (BoE, 2021) in June 2021 titled "*New Forms of Digital Money*", covering both stablecoins and CBDC. The BoE noted that widely adopted stablecoins could offer faster and cheaper payments, but they must be safe to preserve public confidence. Echoing the Financial Policy Committee (FPC), the BoE set out expectations that systemic stablecoins should provide the same level of protection as bank money. At this stage, the BoE had not decided on a detailed regulatory approach for stablecoin issuers, but it opened discussion on different models (e.g., requiring stablecoin issuers to hold high-quality reserves, capital, liquidity, and potentially access central bank facilities) to meet those standards.

- *Apr 2022 – Government Response: Stablecoins To Be Brought into Regulation*. In April 2022, the government released HM Treasury's response to the 2021 consultation (HM Treasury, 2022b), setting out its policy decisions. The Treasury confirmed its plan to legislate to bring stablecoin activities into the UK regulatory perimeter, with a focus on stablecoins used for payments. The statement clarified that fiat-backed stablecoin issuers and wallet providers should face regulation similar to that for electronic money and payment firms. The government proposed achieving this by amending the Electronic Money Regulations 2011 (EMR 2011) and Payment Services Regulations 2017 (PSR 2017) to include stablecoins. For stablecoins treated like e-money, issuers would need to be authorised and meet prudential and consumer protection requirements. The response also noted plans to develop an Financial Market Infrastructure (FMI) sandbox for testing DLT-based settlement systems.

- *Apr 2022 – Government Sets Out Plan to Make UK a Global Cryptoasset Technology Hub*. On April 4, 2022, the government announced a suite of cryptoasset measures to make the UK a "global cryptoasset technology hub". A HM Treasury press release outlined that stablecoins would be recognised as a valid form of payment in the UK and brought within regulation[114]. The government stated that it would legislate to bring stablecoin payment services within the payments regulatory framework, creating conditions for issuers and service providers to operate and invest in the UK. The Economic Secretary to the Treasury, John Glen, in a speech[115] the same day, emphasised that the government aims to "enable consumers to use stablecoin payment services with confidence" and spur a "world-leading regulatory regime for stablecoins".

- *May 2022 – HM Treasury Consultation on Managing Stablecoin Failure (Systemic DSAs)*. As the stablecoin policy developed, authorities focused on financial stability safeguards. In May 2022, a major algorithmic stablecoin (TerraUSD) collapsed globally, which reinforced concerns over stablecoins that incorrectly purport to be money (BoE, 2023). UK regulators responded on the policy front. HM Treasury issued a consultation paper titled "*Managing the failure of systemic digital settlement asset (including stablecoin) firms*" (HM Treasury, 2022a) in May 2022. The consultation proposed applying a tailored FMI Special Administration Regime (SAR) to any DSA firms deemed systemically important (i.e., their failure could threaten financial stability). This approach helps manage insolvency by prioritizing the continuity of critical services and consumer protection. In practice, this means extending the existing special administration framework that was originally designed for payment systems and exchanges to cover stablecoin issuers and wallets if they are systemic. This failure regime was a complement to prudential regulation: while regulation should minimize the risk of collapse, a backstop administration process would protect users if the worst occurred.

- *Feb 2023 – Consultation on Future Cryptoasset Regime (Phase 2)*. In February 2023, HM Treasury released a consultation on the future financial services regulatory regime for cryptoassets (HM Treasury, 2023a). This marked the next phase of the UK's plan (Phase 2) and outlined proposals to bring a broad range of cryptoasset activities into the regulatory perimeter. Building on the stablecoin work, the consultation addressed crypto trading platforms, lending, custody, and algorithmic or asset-backed stablecoins not covered in Phase 1. It also reaffirmed the government's April 2022 commitment to a new crypto regime that accounts for both risks and opportunities. Recent events, such as the FTX collapse, were cited as additional reasons for regulatory action.

[114] "*The government has today announced moves that will see stablecoins recognised as a valid form of payment as part of wider plans to make Britain a global hub for cryptoasset technology and investment*". See HM Treasury's press release here.
[115] See the keynote speech by John Glen at the Innovate Finance Global Summit.

- *Jun 2023 – FSMA 2023 Enacted*. The FSMA 2023 received Royal Assent on June 29, 2023, and embedded into law several provisions that enable the regulation of stablecoins, among other financial reforms. It created the statutory framework for DSAs and empowered HMT to enact secondary regulations to bring stablecoin activities under regulatory oversight. A DSA is defined as "*a digital representation of value or rights ... that can be used for the settlement of payment obligations, can be transferred, stored or traded electronically, and uses technology for recording or storage of data*".[116] This definition covers stablecoins used in payments. Under the FSMA 2023, HM Treasury can designate specific activities related to DSAs as regulated activities under FSMA 2000, requiring FCA authorisation. In effect, the FSMA 2023 paved the way for stablecoin regulation[117] by giving the government the legislative authority to impose authorisation requirements and rules on stablecoin issuers, service providers, and payment networks. The Act also amended the Banking Act 2009 to grant the BoE and Payment Service Regulator oversight powers over systemic DSA payment firms. It also enabled the extension of the FMI SAR to include these firms.

- *Oct 2023 – Stablecoin Regulatory Update and Cryptoasset Regime Proposals*. In October 2023, HM Treasury released two key documents to finalize its crypto regulatory plans. First, it published an "*Update on plans for the regulation of fiat-backed stablecoins*" (HM Treasury, 2023c), setting out the detailed scope and next steps for Phase 1 (stablecoin) regulation. The update confirmed that Phase 1 focuses on fiat-backed stablecoins and excludes algorithmic stablecoins and asset-backed tokens. It clarified that stablecoin payments will be brought into the regulatory perimeter by extending payments legislation. For example, the PSR 2017[118] will be amended so that payments involving stablecoins fall under regulation and FCA supervision. The update also outlined new regulated activities. The issuance of fiat-backed stablecoins in or from the UK will become a regulated activity under the FSMA 2000 Regulated Activities Order, requiring FCA authorisation. These measures ensure that stablecoin issuers must meet prudential standards, including requirements for capital, reserve asset quality, and redemption rights. Similarly, stablecoin custody will be regulated, requiring custodians to safeguard assets in line with traditional custody standards.

  On the same day, HM Treasury also published its response (HM Treasury, 2023b) to the consultation on the future cryptoassets regime (Phase 2 final proposals). In that response, the government confirmed its plan to bring a range of cryptoasset activities under regulation, effectively advancing to Phase 2. It also noted that legislation to implement the broader regulatory framework is expected to be introduced in 2024.

- *Nov 2023 – FCA and BoE Discussion Paper on Stablecoin Rules*. Following the government's policy direction, regulators began developing detailed rules. On November 6, 2023, the FCA published discussion paper DP23/4: "*Regulating Cryptoassets – Phase 1: Stablecoins*" (FCA, 2023). The paper outlines the FCA's proposed approach to regulating fiat-backed stablecoin arrangements. It covers draft rules for stablecoin issuers and custodians under the FSMA 2023, as well as rules for firms facilitating stablecoin payments under the PSR 2017. For example, the FCA sets requirements for stablecoin issuers to maintain high-quality, liquid reserve assets equivalent to the value of coins in circulation, with reserves potentially held in trust for holders. It also addresses consumer redemption rights, capital and liquidity standards, and a possible ban on paying interest on stablecoin balances to ensure their use remains limited to payments.

  On the same day, the BoE issued a discussion paper (BoE, 2023) titled "*Regulatory regime for systemic payment systems using stablecoins (and related service providers)*". This outlined in detail how the BoE would exercise its new powers for systemically important stablecoin arrangements. The BoE proposed that any stablecoin deemed systemic must be as safe as traditional money used in critical payments. This DP suggested that a systemic stablecoin operating a payment system should be backed 1:1 by high-quality assets, with an emphasis on central bank reserves. In effect, a systemic stablecoin in the UK might be required to deposit equivalent fiat in the BoE, eliminating credit risk to coinholders. The BoE also outlined capital and liquidity expectations, interoperability with central bank infrastructure, and how it would coordinate with the FCA for dual-regulated entities. The BoE thus signaled it is ready to oversee stablecoin systems similar to payment systems, applying principles of "same risk, same regulatory outcome".

  Together, the FCA and BoE consultations outline how the UK will supervise stablecoins in practice: the FCA focuses on conduct, consumer protection, and requirements for all stablecoin issuers, while the BoE addresses financial stability and resilience for major stablecoin arrangements.

[116] See Schedule 6 - Digital Settlement Assets of FSMA 2023.

[117] See Sidley's summary of the UK's confirmed regulatory framework for stablecoins and other cryptoassets.

[118] Although HM Treasury initially proposed amending the Payment Services Regulations (PSR) 2017 to bring fiat-backed stablecoin payments within the regulatory perimeter, the government has since decided not to proceed with this approach. According to paragraph 1.4 of the April 2025 policy note (HM Treasury, 2025a), the PSR 2017 will not be amended at this stage, meaning that payments involving stablecoins will currently remain outside the scope of UK payments regulation.

- *Mar 2024 – BoE Consultation Paper on Enforcement Approach*. Early 2024 saw regulators digest feedback and begin shaping the details of the forthcoming regulatory regime. In particular, the BoE issued a consultation (BoE, 2024a) seeking views on proposed changes to its enforcement policies following the passage of the FSMA 2023. The Act had expanded the BoE 's enforcement powers, enabling it to oversee and take action against DSA payment systems and related service providers designated as systemic. The consultation focused on how these new powers would be applied in practice and how the BoE would approach enforcement in situations involving firms operating systemic stablecoin arrangements. It proposed updates to existing statements of policy and procedure to ensure that enforcement tools could be applied consistently to both traditional financial market infrastructure and new forms of digital settlement systems.

2. Unified single-stage regulatory framework (Nov 2024 – present):

In November 2024, the UK government formally shifted its regulatory strategy for cryptoassets from a phased approach to a unified, single-stage framework. This change was first articulated in a speech[119] by the City Minister, Tulip Siddiq, at the Tokenisation Summit, where she confirmed that the government would implement new regulated activities for stablecoins on the same timetable as the wider cryptoasset regime. The decision was subsequently reflected in the FCA 's discussion paper (FCA, 2024)[120] in December 2024. The government recognised that a single-stage legislative process would reduce regulatory complexity, avoid potential misalignments between overlapping regimes, and ensure a consistent and coherent framework.

- *Apr 2025 – Draft SI under the FSMA 2000 (Regulated Activities and Misc. Provisions) (Cryptoassets) Order*. The Draft Statutory Instrument: The FSMA (Regulated Activities and Miscellaneous Provisions) (Cryptoassets) Order (HM Treasury, 2025b), published in April 2025, proposes to bring specified cryptoasset-related activities under the scope of the FSMA 2000, making them regulated activities supervised by the FCA. The SI introduces a new category of "qualifying cryptoassets" (Article 88F) and "qualifying stablecoins" (Article 88G) as specified investments. These definitions deliberately exclude central bank digital currencies, electronic money, tokenised deposits, and other non-transferable or limited-use tokens. Activities such as issuing stablecoins in the UK, operating a cryptoasset trading venue, custody of cryptoassets, principal and agency trading, staking services, and arranging cryptoasset transactions will require FCA authorisation under the revised Regulated Activities Order (RAO).

- *May 2025 – FCA Consultation Paper on Stablecoin Issuance and Cryptoasset Custody*. In May 2025, the FCA published consultation paper CP25/14, titled *Stablecoin Issuance and Cryptoasset Custody* (FCA, 2025a). The paper sets out proposed regulatory rules for firms issuing fiat-backed stablecoins and for firms safeguarding qualifying cryptoassets. Its goal is to bring parts of the cryptoasset sector under a formal financial regulatory regime. The FCA aims to protect consumers, strengthen market integrity, and encourage responsible innovation in the UK.

  Stablecoin Issuance. The proposed rules for stablecoin issuers aim to ensure that qualifying stablecoins are reliable and function like money. Issuers must fully back stablecoins with high-quality liquid assets and maintain a minimum proportion in on-demand deposits to guarantee immediate liquidity. All stablecoin holders must be able to redeem at par value on a T+1 basis, ensuring prompt access to the fiat equivalent. Issuers may retain interest from backing assets but cannot pass it on to stablecoin holders, keeping stablecoins money-like rather than investment products. In addition, stablecoin issuers must comply with UK AML/CFT legislation by applying appropriate customer due diligence (CDD) measures and reporting suspicious activity to law enforcement where required. Under CP25/14, the FCA clarifies that stablecoin issuers operating from a UK establishment must meet the same regulatory requirements regardless of where the stablecoin is issued. Stablecoins issued solely overseas, without a UK establishment, remain outside the FCA's regime but are still accessible to UK consumers, showing the limits of the regulatory perimeter.

  Cryptoasset Custody. The rules for cryptoasset custody apply to any firm holding qualifying cryptoassets on behalf of clients. This includes stablecoins. Custodians must separate client assets from their own, hold them in trust, and maintain accurate records. They are expected to have systems and governance in place to protect assets and allow for prompt return in case of failure. These standards are intended to prevent harm and raise confidence in the cryptoasset market.

[119] "*Doing everything in a single phase is simpler, and it just makes more sense*". See Tulip Siddiq's keynote address at the Tokenisation Summit.

[120] "*... with one key difference: the government will no longer pursue a 'phased approach' towards crypto legislation. This means that fiat-referenced stablecoin activities (previously 'phase 1') will be legislated for at the same time as crypto trading, exchange, and other activities (previously 'phase 2')*". See paragraph 1.2 of FCA (2024).

- *May 2025 – FCA Consultation Paper on Prudential Regime for Cryptoasset Firms.* Alongside CP25/14, the FCA also issued another consultation paper (FCA, 2025b) titled "*CP25/15: A prudential regime for cryptoasset firms*". This consultation sets out proposed capital and liquidity requirements for stablecoin issuers and custodians. For example, the FCA is considering minimum own funds for issuers and requirements on the composition of reserve assets. It aims to ensure that an issuer can honor redemptions even under stress and that custodians of cryptoassets have financial resilience. Both CP25/14 and CP25/15 underscore the FCA 's coordinated approach with the BoE: the FCA will supervise conduct, consumer protection, and firm soundness, while the BoE will step in for systemic oversight as needed.

B.2 European Union

Motivation The EU decided to regulate stablecoins due to their rapid growth and the risks they could pose to the financial system. In a joint 2019 statement, the Council of the EU and the European Commission cautioned that "*global stablecoin arrangements should not begin operation in the European Union until the legal, regulatory and oversight challenges and risks have been adequately identified and addressed*" (Council of the EU, 2019). Authorities feared that a widely adopted stablecoin could undermine the "*existing financial and monetary order as well as monetary sovereignty in the EU*" (Council of the EU, 2019).

More broadly, EU officials observed that while crypto-assets (including stablecoins) can promote innovation in payments and finance, they also pose varied risks, including money laundering, cyber threats, consumer harm, and systemic risk. The EU specifically highlighted "*additional challenges in terms of financial stability, the smooth operation of payment systems, monetary policy transmission or monetary sovereignty*"[121] if certain crypto-assets seeking a stable value (stablecoins) were widely adopted. This policy consensus, reflected in G7, G20, and Financial Stability Board discussions, strengthened the push to regulate stablecoins before they became too large (Adachi et al., 2022). EU regulators viewed effective oversight as crucial to ensure legal clarity and to prevent financial stability risks (Council of the EU, 2019).

MiCA timeline The EU developed the MiCA regulation as the first comprehensive framework for crypto-assets, with a strong focus on stablecoins.

- *Proposal Phase (2018–2020).* The idea of an EU-level crypto-asset regulation emerged from various expert reports. In late 2019, EU finance ministers and central bankers called for urgent action on "global stablecoins" (Council of the EU, 2019). In September 2020, the European Commission formally proposed MiCA proposal COM(2020) 593.[122] This proposal was released together with related measures, including a pilot regime for DLT market infrastructure and digital resilience rules. It explicitly included rules for stablecoins in response to concerns about the potential impact.
- *Legislative Negotiations (2021–2022).* MiCA followed the EU's ordinary legislative procedure. The Council of the EU reached its negotiating mandate in November 2021, and the European Parliament's ECON committee adopted its position in March 2022. Trilogue negotiations[123] among the Council, Parliament, and Commission took place in March 2022, leading to a provisional agreement on MiCA in June 2022.
- *Adoption and Publication (2023).* The final MiCA text was approved by the European Parliament on April 20, 2023 and by the EU Council on May 16, 2023. It was published on June 9, 2023 as Regulation (EU) 2023/1114, entering into force on June 29, 2023. As an EU regulation, MiCA is directly applicable in all member states without national transposition.
- *Phased Enforcement (2024–2025).* MiCA 's provisions come into effect in stages. The rules for stablecoin issuers were given priority. They apply from June 30, 2024. The broader provisions for Crypto-Asset Service Providerss (CASPs) and for offerings of other crypto-assets apply from December 30, 2024. During the interim, existing national laws or registration regimes for crypto services remain in force. Since the end of 2024, MiCA has been in effect across the EU single market. There are also transitional arrangements in place for firms that are already operating. For example, an existing stablecoin issuer has a transition period of up to 18 months (depending on the member state) to seek authorisation under MiCA.

[121] As stated in Recital (5) of the MiCA regulation.
[122] See the European Commission's proposal for a regulation on markets in crypto-assets.
[123] See the Council of the EU's announcement on the adoption of new rules for MiCA.

Crypto-asset classification under MiCA MiCA introduces a taxonomy of crypto-assets, distinguishing stablecoins from other tokens and aligning them with existing EU law where appropriate. It defines three broad categories and tailors requirements to match each category's risk profile:

Table A4: Stablecoin types vs. MiCA crypto-asset classification

Stablecoin Type	MiCA Classification	Conditions / Notes
Fiat-backed stablecoin	EMT	Only if pegged to a single official currency and used for payments
	ART	If pegged to multiple fiat currencies or used for investment/storage
Crypto-backed stablecoin	ART	If designed to maintain stable value via crypto collateral
Commodity-backed stablecoin	ART	If value references commodities (e.g., gold)
Algorithmic stablecoin	Other Crypto-assets	If not referencing any external asset (purely algorithmic model)
	ART (possible)	If algorithmically stabilised but references fiat or other assets

Notes: This table maps different types of stablecoins to the MiCA crypto-asset classification. Fiat-backed stablecoins fall under the category of EMTs only when they are pegged to a single official currency (e.g., USD or EUR) and are intended for payment use; otherwise, they are classified as ARTs. Crypto-backed and commodity-backed stablecoins are generally considered ARTs, as their value references non-fiat assets. Algorithmic stablecoins are categorised as Other Crypto-assets when they do not reference any external asset, but may be considered ARTs if they indirectly reference fiat or other assets through stabilisation mechanisms. Final classification depends on the asset reference, intended function, and structural design.

- *Electronic Money Tokens (EMTs)*. EMTs are stablecoins referencing a single fiat currency to maintain a stable value relative to that currency. In essence, an EMT is a tokenised form of one fiat currency (e.g., a euro stablecoin). MiCA intentionally labels these as "e-money tokens" to reflect their functional similarity to electronic money. EMTs are unique in that MiCA treats them as both crypto-assets and as electronic money under existing laws. The regulation explicitly states that an EMT must comply with core e-money obligations. It must be issued at par value upon receipt of funds and redeemable at any time at par in the reference currency. Moreover, only authorised credit institutions or electronic money institutions (EMIs) are permitted to issue EMTs. This bridges MiCA with the Electronic Money Directive (EMD2) and Payment Services Directive. MiCA provides that the EMD2 provisions on issuance and redeemability (Titles II and III of 2009/110/EC) apply *mutatis mutandis* to EMTs.

- *Asset-Referenced Tokens (ARTs)*. ARTs are stablecoins referencing multiple assets or non-fiat assets to maintain a stable value. MiCA defines an ART as any crypto-asset that "*is not an electronic money token and that purports to maintain a stable value by referencing another value or right or a combination thereof, including one or more official currencies*". This definition captures stablecoins backed by baskets of fiat, commodities, or crypto-assets (or any mix). For instance, a token backed by a reserve of several fiat currencies and gold, or a crypto-backed stablecoin (e.g., DAI), would fall under ART. Unlike EMTs, ARTs are not "funds" or e-money in EU law. They are treated as a novel category of crypto-asset.

- *Other Crypto-Assets*. This type consists of crypto-assets other than EMTs and ARTs. This includes cryptocurrencies such as BTC and ETH (unbacked crypto-assets), utility tokens for platform access, and tokens for services or governance. These assets typically do not aim to maintain stable values. MiCA applies a lighter regulatory framework to this category (e.g., requiring a white paper for public offerings but not prudential or reserve requirements) because they present different risk profiles. Notably, algorithmic stablecoins are not recognised as "stablecoins" under MiCA. If an algorithmic token does not reference any external asset or fiat, MiCA treats it as an unbacked crypto-asset subject to the general rules.[124]

Regulatory scope of MiCA for stablecoins MiCA establishes a comprehensive regulatory oversight for activities involving stablecoins in the EU. The regulation covers the entire lifecycle and ecosystem of stablecoins, including issuance, offering to the public, trading, custodial custody, and redemption. Key aspects of MiCA 's scope for stablecoins include:

- *Issuer Authorisation and Supervision*. Any entity issuing EMTs or ARTs to the public in the EU must be authorised under MiCA and is subject to ongoing supervision. For EMTs, only banks or e-money institutions can be issuers, so their authorisation is via banking or e-money regulations, with additional MiCA requirements. ART issuers must obtain a new form of authorisation from the competent national authority (usually the financial regulator in their home Member State) under MiCA's Title III rules. Issuers are supervised

[124] As stated in Recital (41) of the MiCA regulation.

Table A5: MiCA issuer requirements by crypto-asset category

Requirements	Other CA	EMT	ART	Significant EMT	Significant ART
Legal form and EU location	✓	✓	✓	✓	✓
White paper requirements	✓	✓	✓	✓	✓
Marketing/communication rules	✓	✓	✓	✓	✓
Licensing (authorisation)	✗	✓	✓	✓	✓
Capital requirements	✗	✓	✓	✓	✓
Reserve requirements	✗	✓	✓	✓	✓
Reserve managements	✗	✓	✓	✓	✓
Prudential requirements	✗	✓	✓	✓	✓
Redemption rights for holders	✗	✓	✓	✓	✓
EBA supervision	✗	✗	✗	✓	✓

Notes: This table summarises issuer requirements under the MiCA regulation across different categories. Stablecoins are classified as "significant" if they meet certain thresholds (e.g., volume, user base), which trigger additional requirements. As for redemption requirements, EMTs must be redeemable at par value, while ARTs are redeemable at market value. MiCA does not require licensing for issuers of crypto-assets outside the stablecoin categories. Generally, any legal entity may offer such crypto-assets to the public or seek their admission to trading, provided it complies with MiCA's requirements.

by that national authority in coordination with the European Banking Authority (EBA) for significant stablecoins. It is important to note that MiCA requires issuers to have a legal presence in the EU to market their stablecoins within the region. This requirement aims to prevent unregulated offshore entities from issuing stablecoins into the EU market. MiCA imposes a robust issuer regime for stablecoins. Key requirements for ARTs and EMTs issuers include licensing requirements, capital and reserve requirements, prudential obligations, disclosure requirements, and redemption requirements (see Table A5 for more details).

- *Public Offering and Market Admission*. MiCA regulates the offering of stablecoins to the public in the EU and their admission to trading on crypto-asset platforms. An issuer of an ART or EMT must publish a detailed crypto-asset white paper and get it approved by regulators before offering tokens to the public (or having them listed). This functions similarly to a securities prospectus regime. The white paper must disclose information on the token's mechanics, governance, reserve assets, rights of holders, and risks. Importantly, MiCA requires that communications to purchasers are fair and not misleading, and it grants purchasers the right to withdraw in the early stage of an offering. Under disclosure and transparency requirements, any material changes to a stablecoin, such as changes in reserve composition or governance, must be reported in updated white papers to maintain transparency.

- *CASPs*. MiCA introduces the concept of regulated CASPs, covering intermediaries such as exchanges, trading platforms, brokers, custodians, and wallet providers that operate in the EU. CASPs must be licensed under MiCA and comply with conduct requirements when dealing in any crypto-assets. For stablecoins specifically, CASPs (e.g., an exchange listing a stablecoin) must ensure the tokens they support are issued in accordance with MiCA's rules. For example, a trading platform should verify that any listed ART/EMT has an approved white paper and authorised issuer. CASPs are subject to prudential safeguards, governance norms, and investor protection rules under MiCA, similar to securities broker regulations. They must segregate client assets, maintain operational resilience, and avoid market abuse. These obligations apply when CASPs facilitate stablecoin trading or custody, providing stablecoin users with protections similar to those offered for other financial products. Additionally, MiCA operates alongside updated EU Anti-Money Laundering (AML) rules (a separate Transfer of Funds Regulation now extends the "travel rule"[125]). A CASP transferring stablecoins on behalf of a customer must collect and transmit originator and beneficiary data. This requirement closes AML gaps in peer-to-peer stablecoin transfers.

- *Redemption and Use as Payment*. A defining characteristic of stablecoins is the promise that they can be redeemed for their underlying asset, whether fiat or another form of collateral. MiCA reinforces redemption rights for stablecoin holders. EMT holders have a legal right to redeem at par in the reference currency at any time, with no fees. ART holders have the right to redeem their tokens for the reference assets at their current value, as specified in the issuer's terms. Regulators ensure that redemption mechanisms are effective and timely. MiCA helps align stablecoins with the treatment of regulated stored-value instruments. This ensures that customers can redeem their holdings on demand.

[125] See the EBA's guidance on applying the "travel rule" to tackle money laundering and terrorist financing in transfers of funds and crypto-assets.

- *Restrictions on Large-Scale (Significant) Stablecoins*. To address systemic and monetary risks, MiCA gives authorities the power to intervene if a stablecoin becomes "too big" in payment usage. For ARTs, MiCA sets quantitative thresholds: if an ART's average daily transaction volume exceeds 1 million transactions or €200 million in value within a single currency area (e.g., the euro area) over a quarter, the issuer must stop issuing new tokens and submit a plan to reduce usage below the threshold. This protects monetary sovereignty by limiting the extent to which non-euro stablecoins can be used for payments in the EU. Additionally, MiCA designates certain stablecoins as "Significant EMTs/ARTs" if they meet size criteria (e.g., number of users, market value, transaction volume). These significant stablecoins are subject to enhanced supervision by the EBA. This two-tier approach (regular vs. significant tokens) ensures that the EBA directly supervises significant ARTs and EMTs, providing an additional layer of EU-level oversight.

B.3 United States

Motivation US authorities view stablecoins as posing significant risks that need closer regulation. A major concern is financial stability. The President's Working Group (PWG) on Financial Markets noted that widespread use of stablecoins for payments could lead to "*destabilizing runs, disruptions in the payment system, and concentration of economic power*" (PWG, 2021), especially if reserve assets are insufficient or not transparent. The Financial Stability Oversight Council (FSOC) emphasised that if stablecoins reach a significant scale, a loss of confidence could trigger fire sales of reserve assets. This can potentially disrupt traditional money markets (FSOC, 2022).

Another motivation is illicit finance and national security. Because stablecoins facilitate pseudonymous transfers, they could be misused to evade AML rules, sanctions, or tax laws. The Financial Crimes Enforcement Network (FinCEN) insists that stablecoin issuers and intermediaries should implement robust AML/CFT controls just like other financial institutions.[126] This reflects the government's concern that unregulated stablecoin networks could enable illegal activity if left outside the regulated banking perimeter.

Investor and consumer protection is a further driver of regulation. Regulators worry that some stablecoin issuers misrepresent reserves[127] or lack transparency, leaving consumers vulnerable to losses if the coin can't honor redemptions. FSOC reported that many issuers are "*opaque about the exact nature of their asset holdings*" (FSOC, 2022), and investigations found some stablecoin reserve attestations were false. SEC Chairman Gary Gensler has similarly warned[128] that stablecoins created a mismatch between user expectations and legal protections.

Finally, regulators are motivated by monetary sovereignty concerns. They are concerned that a large, stablecoin not controlled by the central bank could render monetary policy less effective or even threaten the US dollar's dominance if foreign or unregulated stablecoins become popular globally. For example, a PWG report (PWG, 2021) noted that the aggregate growth of stablecoins could affect traditional bank funding and credit creation. Vice Chair for Supervision Michael Barr has similarly expressed concern[129] that stablecoin issuance outside the banking framework could pose significant risks to financial stability, monetary policy, and the US payments system.

Major regulatory events and developments Stablecoin regulation is evolving rapidly, with multiple bills and regulatory actions in recent years. Figure A3 shows a chronology of major US legislative and regulatory developments (federal and state) focused on stablecoins.

- *Dec 2020 – The Stablecoin Classification and Regulation Act*. In one of the first congressional proposals specifically targeting stablecoins, Representatives Tlaib, Garcia, and Lynch introduced the *Stablecoin Classification and Regulation Act of 2020* (H.R. 8827).[130] The bill would have required any stablecoin issuer to be a chartered insured depository institution, thereby bringing issuance under the prudential oversight applied to banks and ensuring that the issuer's liabilities were covered by FDIC insurance. This bill reflected

[126] See FinCEN's remarks by Director Kenneth Blanco at the Chainalysis Blockchain Symposium, addressing the AML/CFT treatment of stablecoin transactions.
[127] See the consumer alert issued by New York Attorney General Letitia James regarding Tether's false statements about the backing of the USDT stablecoin.
[128] See SEC Chairman Gary Gensler's remarks on stablecoins and investor protection at the Penn Law Capital Markets Association Annual Conference.
[129] See Michael Barr's speech where he expressed deep concern about stablecoin issuance without strong federal oversight.
[130] See the full text of the Stablecoin Classification and Regulation Act of 2020.

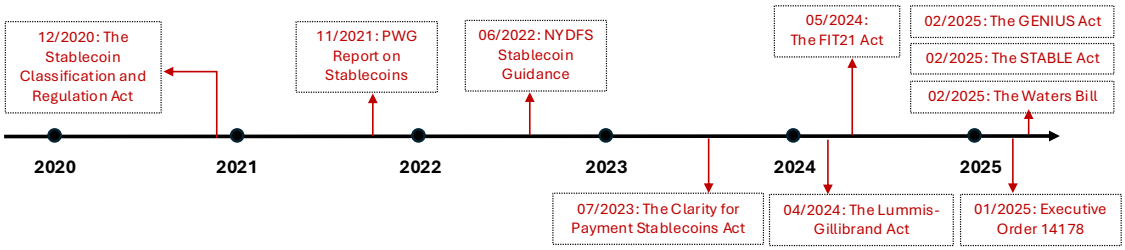


Figure A3: Major events and developments of US stablecoin regulation

early concerns (post-Libra announcement) that stablecoin issuance should be restricted to insured banks, but it did not advance in Congress. It set the stage by highlighting consumer and systemic risks of "stable value" tokens and the idea of applying bank-like rules. Although not passed, the Act's themes reappeared in later proposals (e.g., PWG (2021)'s recommendation that issuers be insured depository institutions).

- *Nov 2021 – PWG Report on Stablecoins*. The PWG (Treasury, Fed, SEC, CFTC), together with the FDIC and the OCC, released a landmark report (PWG, 2021). It called for prompt legislation to establish a federal prudential framework for "payment stablecoins". Key recommendations included limiting issuance to insured depository institutions to prevent runs, applying oversight to custodial wallet providers, and restricting ties between stablecoin issuers and commercial firms to avoid concentration of power. This report represents the official executive branch position as of late 2021 and had a significant influence on later bills.

- *Jun 2022 – NYDFS Stablecoin Guidance*. The NYDFS issued guidance on the issuance of US dollar-backed stablecoins for entities it supervises (effective upon publication in June 2022).[131] The guidance requires any such stablecoin to be fully backed at all times by a reserve of eligible assets, subject to monthly independent attestations, and redeemable in USD on demand. Prompted by market instability and high-profile failures in the broader stablecoin sector, the measure aimed to strengthen consumer protection.

- *Jul 2023 – The Clarity for Payment Stablecoins Act*. In the 118th Congress, Chairman Patrick McHenry introduced H.R. 4766, the "*Clarity for Payment Stablecoins Act of 2023*".[132] The bill established a framework in which both federally chartered and state-chartered entities could issue "payment stablecoins" subject to prudential requirements. It recognised multiple regulatory paths. issuers could be insured depository institutions overseen by their primary federal bank regulators, or non-bank entities holding a new federal payment stablecoin license issued and supervised by the Office of the Comptroller of the Currency (OCC). State-chartered non-bank issuers operating under a qualified state payment stablecoin regime could also issue nationally, with their regime certified by the US Treasury. The bill aimed to align state and federal oversight while preserving dual banking options. Although it did not become law in that Congress, its core framework closely informed the design of the *GENIUS Act* (2025), which established the first comprehensive federal regime specifically for "payment stablecoins" in the United States.

- *Apr 2024 – The Lummis-Gillibrand "Payment Stablecoin Act"*. The Act[133] was introduced in April 17, 2024 by US Senators Kirsten Gillibrand (D-NY) and Cynthia Lummis (R-WY).[134] It established a federal framework for regulating payment stablecoins. Only insured depository institutions or approved non-bank payment stablecoin issuers could operate under the Act, and all stablecoins would need to be fully backed on a one-to-one basis by US dollars or high-quality liquid dollar-denominated assets. The bill imposed stringent capital and liquidity standards, prohibited algorithmic stablecoins as a class, and barred crypto- or algorithm-pegged designs, reflecting post-Terra concerns over redemption stability.

- *May 2024 – The Financial Innovation and Technology for the 21st Century Act (FIT21)*. The House advanced H.R. 4763, known as FIT21, as a broad digital asset market structure bill in the 118th Congress.[135] FIT21 expressly recognised that payment stablecoins would be regulated under separate legislation and excluded "permitted payment stablecoins" from the scope of the new SEC/CFTC framework. On May 22, 2024, the House passed FIT21 by a bipartisan vote (279–136), signaling lawmakers' intent to treat such

[131] See the NYDFS's announcement outlining its regulatory guidance on the issuance of US dollar-backed stablecoins.
[132] See Congress's summary and full text of H.R.4766 - Clarity for Payment Stablecoins Act of 2023.
[133] See the full text of S.4155 - Lummis-Gillibrand Payment Stablecoin Act.
[134] See the Senate's press release announcing its introduction on April 17, 2024.
[135] See Mayer Brown's summary of the House passage of FIT21.

stablecoins primarily as payment instruments or banking products rather than investment vehicles. Although the bill faced an uncertain path in the Senate, its passage reinforced legislative momentum toward a dedicated federal stablecoin regime.

- *Jan 2025 – Executive Order 14178*. On January 23, 2025, President Donald J. Trump issued Executive Order 14178, titled "*Strengthening American Leadership in Digital Financial Technology*".[136] The order explicitly prohibited any federal agency from establishing, issuing, or promoting a US Central Bank Digital Currency, citing concerns about monetary sovereignty, financial privacy, and governmental overreach in the financial sector. It also directed federal agencies to develop and implement a policy framework to support the issuance and responsible regulation of US dollar-backed stablecoins, with the stated aim of strengthening the primacy of the US dollar in global financial markets.[137]

- *Feb 2025 – The Stablecoin Transparency and Accountability for a Better Ledger Economy (STABLE) Act*. On February 6, 2025, Representatives French Hill (R-AR) and Bryan Steil (R-WI) introduced the STABLE Act of 2025[138] in the US House of Representatives. The bill passed the House Financial Services Committee in April 2025[139] and, as of August 2025, awaits a full House floor vote. The STABLE Act emphasises federal oversight as the primary regulatory path for payment stablecoin issuers, in contrast to the *GENIUS Act*, which permits qualifying state-chartered issuers to operate nationally. Under the STABLE Act, entities seeking to issue payment stablecoins must obtain authorisation as "permitted payment stablecoin issuers". Similar to the GENIUS Act, issuers are required to maintain reserves backing the stablecoins on a one-to-one basis with HQLAs. The Act also imposes stringent standards on capital, liquidity, risk management, operations, and information technology for issuers.

- *Feb 2025 – The Waters Bill*. On February 10, 2025, Congresswoman Maxine Waters (D-CA) released a bipartisan payment stablecoin proposal (the "Waters Bill"),[140] building on a 2022–2023 draft negotiated with then-Chair Patrick McHenry.[141] The bill would require all payment stablecoin issuers to be subject to federal oversight, eliminating any purely state-level issuance path. It prohibits non-financial commercial companies, including large technology firms such as Meta, Google, and X, from owning or controlling stablecoin issuers, thereby reinforcing the separation of banking and commerce.[142] To enhance financial stability and consumer protection, the bill imposes strict reserve requirements, mandating one-to-one backing with HQLAs alongside robust risk management and disclosure obligations.

- *Feb 2025 – The Guiding and Establishing National Innovation for US Stablecoins (GENIUS) Act*. The GENIUS Act was first introduced in its original form[143] on February 4, 2025. The US Senate passed the Act on June 17, 2025, with a 68–30 vote.[144] On July 18, 2025, the Act was officially signed into law by President Trump,[145] following a successful vote in the US House of Representatives (308–122).

  The GENIUS Act is a bipartisan Senate-originated bill, introduced by Republican Senator Bill Hagerty (R-TN), with bipartisan cosponsors. It aimed at establishing the first federal framework for US payment stablecoins. The key provisions[146] of the act require that stablecoin issuers maintain a full 1:1 reserve ratio using HQLAs, ensuring that every issued stablecoin is fully backed. To promote transparency and accountability, issuers must provide regular monthly disclosures and undergo independent audits to verify their reserve holdings. The legislation also prohibits these issuers from offering interest to stablecoin holders, thereby avoiding the risk of confusing stablecoins with traditional deposit accounts. In addition, the Act establishes a dual regulatory pathway: issuers may be licensed and supervised at the federal level by obtaining a "federal qualified payment stablecoin issuer" charter from the OCC, or they may operate under a "qualified state payment stablecoin regime" certified by the US Treasury, allowing state-chartered issuers to offer their stablecoins nationwide subject to baseline federal standards. The act further imposes strict AML obligations and provides for consumer protections, including clear procedures for addressing insolvency and liquidation scenarios.

[136] See the official text of Executive Order 14178 from the Government Publishing Office.
[137] See the American Presidency Project's entry for Executive Order 14178.
[138] See the full text of the STABLE Act of 2025.
[139] See ICBA's report on the STABLE Act's committee passage.
[140] See CoinGeek's coverage on the bipartisan stablecoin bill introduced by Maxine Waters.
[141] See Ledger Insights' coverage of the Waters Bill.
[142] See the official announcement from Ranking Member Maxine Waters on the bipartisan stablecoins legislation.
[143] See the original version of the GENIUS Act.
[144] See CNBC's report on the Senate's passage of the GENIUS stablecoin bill, highlighting its significance as a major legislative win for the crypto industry.
[145] See Reuters' report on President Trump's signing of the GENIUS Act into law on July 17, 2025.
[146] See the US Senate Banking Committee's announcement introducing the GENIUS Act, a bipartisan effort to establish a regulatory framework for stablecoins.

The surge in stablecoin regulatory proposals in 2025 reflects the Trump administration's shift in digital asset policy. During his first term, Trump appeared skeptical of cryptocurrencies. However, in 2025, his administration supported a regulated framework for private-sector stablecoins. For example, the GENIUS Act, now signed into law, marks the beginning of a comprehensive federal framework for stablecoins in the United States. In addition, the SEC recently launched "Project Crypto"[147], which aims to modernize the securities rules and bring US financial markets "on chain".

B.4 Other Regions

Europe The EU's MiCA has established a comprehensive and harmonised regulatory framework for crypto-assets, including stablecoins. At the same time, several European countries have taken proactive steps at the national level to regulate stablecoins and related services, either in preparation for MiCA 's full implementation or as part of their own regulatory agendas.

For example, Switzerland, although not a member of the EU, has developed a flexible and pragmatic approach through the Swiss Financial Market Supervisory Authority (FINMA). Stablecoins in Switzerland are classified based on their structure and function, and can fall under different regulatory regimes such as banking, securities, payment systems, or collective investment schemes. On July 26, 2024, the FINMA issued Guidance FINMA 06/2024 "Stablecoins: risks and challenges for issuers of stablecoins and banks providing guarantees" (FINMA, 2024), offering further clarification for stablecoin issuers as well as for banks that extend default guarantees to such issuers. This guidance also emphasizes AML compliance and safeguarding financial stability. Recognising the strategic potential of stablecoins for the Swiss economy, the Swiss Bankers Association (SBA) published an expert report in April 2025 (SBA, 2025). The report explores the opportunities and risks of Swiss franc-denominated stablecoins, supports issuance by regulated financial institutions, and highlights their role in enhancing payment efficiency, promoting monetary sovereignty, and strengthening Switzerland's position as a global financial centre.

Among EU member states, France introduced its regulatory framework for digital assets ahead of MiCA through the Pacte Law[148] and the licensing and registration regime[149] administered by the Financial Markets Authority (AMF). This system encourages digital asset service providers, including stablecoin issuers, to seek regulatory approval to foster trust and anticipate the forthcoming EU-wide requirements under MiCA. In December 2024, the FSB published a peer review[150] of France's crypto-asset oversight framework, noting its significant progress in regulating and supervising digital assets. The review commended France's proactive use of the Pacte Law and its alignment with MiCA, while also recommending enhanced enforcement capabilities and closer cross-border coordination to ensure the effectiveness of the regime.

Similarly, in Germany, the Federal Financial Supervisory Authority (BaFin) typically classifies fiat-backed stablecoins as electronic money under the Payment Services Supervision Act (ZAG), [151] provided they are used as a means of payment and offer redemption at par. Issuers are required to obtain licences and adhere to strict capital, governance, and AML requirements. Germany's approach reflects its broader emphasis on consumer protection and mitigating financial crime risks. In December 2024, the German parliament passed the "Digitalisation of Financial Markets Act" (Finanzmarktdigitalisierungsgesetz of FinmadiG).[152] This legislation formally designated BaFin as the competent authority to oversee MiCA implementation, thereby enabling Germany to issue MiCA-compliant authorisations and supervision.

Latin America

- *Brazil*. A new Virtual Assets Act (Law 14,478), effective June 2023, set the legal foundation for digital assets. The central bank is expected to issue detailed stablecoin regulations in 2025.[153] Under this Act, the Central Bank of Brazil (BCB) has the authority regarding "payment arrangements", which includes stablecoins that are used for payments. In late 2024, the BCB released a public consultation proposing to restrict some stablecoin activities. This includes banning the transfer of foreign currency stablecoins to

[147] See SEC Chairman Paul Atkins' speech on July 31, 2025, where he announced the launch of Project Crypto, a Commission-wide initiative to modernize the securities rules and regulations to enable America's financial markets to move on-chain.
[148] See the full text of the Pacte Law (Loi n° 2019-486 du 22 mai 2019 relative à la croissance et la transformation des entreprises).
[149] See AMF's guidance on obtaining a DASP registration/optional licensing here.
[150] See FSB's peer review of France's regulation and supervision of crypto-asset activities.
[151] See the full text of the Payment Services Supervision Act (Zahlungsdiensteaufsichtsgesetz).
[152] See Ledger Insights' coverage of the passage of the Digitalisation of Financial Markets Act.
[153] See Reuters' report on Brazil's plan to regulate stablecoins in 2025, citing comments by the central bank chief.

unhosted (private) wallets and restricting their use in domestic payments.[154] However, the Central Bank of Brazil announced plans to revise its proposed stablecoin regulations following market criticism.[155] Eduardo Nogueira Liberato, a key official of the BCB,[156] described this public consultation as exploratory rather than definitive, stating that it aimed to gather broader market input before finalising any rules.

- *Argentina*. In Argentina, stablecoins are widely used due to inflation, capital controls, and local currency depreciation. As of 2024, stablecoins made up over 60%[157] of all crypto transaction volume in the country, one of the highest shares globally. In 2025, Argentina began regulating this sector through a new registration regime for Virtual Asset Service Providers (VASPs). The Comisión Nacional de Valores (CNV) issued Resolution No. 1058/2025,[158] which requires VASPs, including those handling stablecoins, to register with the authority. The rule applies to domestic and foreign entities and sets out basic compliance duties. These include AML procedures, KYC reporting, and minimum capital and security requirements.

Africa

- *Nigeria*. Nigeria is treating stablecoins with caution. In February 2021, the central bank banned[159] banks from crypto dealings. However, a 2022 policy blueprint, "Payments System Vision 2025 (PSV 2025)", noted the need for a regulatory framework for stablecoins as a payment solution.[160] In December 2023, the central bank lifted the ban on cryptocurrency transactions.[161] In early 2025, Nigeria launched its first regulated stablecoin, the naira-backed cNGN under an SEC sandbox with official approval.[162] This pilot stablecoin (pegged 1:1 to the NGN) reflects authorities' interest in using stablecoins for payments. In March 2025, Nigeria enacted the Investment and Securities Act 2025,[163] which came into force in June. The legislation formally recognises digital assets, including cryptocurrencies and stablecoins, as securities under Nigerian law. It grants the Nigerian SEC broad authority to license, monitor, and enforce compliance among Virtual Asset Service Providers (VASPs) and decentralised finance platforms.
- *Kenya*. Similar to Nigeria, Kenya also introduced the Virtual Asset Service Providers (VASP) Bill[164] in April 2025 to establish a regulatory framework for digital assets, including stablecoins. The bill adopts a dual-regulatory approach: the Central Bank of Kenya (CBK) would supervise stablecoin issuers, custodial wallet providers, and digital payment processors, while the Capital Markets Authority (CMA) would oversee tokenisation platforms, exchanges, and investment advisors dealing with crypto assets. Stablecoin issuers face mandatory licensing, reserve-backing requirements, and periodic audits[165]. The bill also sets governance standards that emphasize operational transparency, risk disclosure, and consumer protection.
- *Zimbabwe*. Since banning banks from processing cryptocurrency transactions in 2018,[166] the Zimbabwean government began reassessing its policy stance in 2024.[167] In May 2024, the government launched consultations with stakeholders in the crypto ecosystem to establish the regulatory framework. In May 2023, the Reserve Bank of Zimbabwe (RBZ) proposed introducing its gold-backed digital tokens.[168] In April 2024, Zimbabwe officially introduced the Zimbabwe Gold (ZiG)[169] to replace the Zimbabwean dollar (ZWL), as the ZWL had lost credibility due to hyperinflation and instability. However, ZiG has seen challenges for wide adoption, which restricts its potential as a reliable means of payment.[170] In fact, foreign currencies, such as the US dollar, continue to dominate daily commerce.[171]

[154] See Ledger Insights' coverage of Brazil's proposed restrictions on stablecoin transfers to self-hosted wallets.
[155] See further report on the Central Bank of Brazil's announcement.
[156] See Cryptonomist's coverage of his remarks.
[157] See Chainalysis report on Latin America's stablecoin adoption, which states that Argentina's share of stablecoin transaction volume is 61.8%, slightly above Brazil (59.8%) and well above the global average of 44.7%.
[158] See Cointelegraph's coverage of Argentina's 2025 regulatory framework for virtual asset providers.
[159] See Reuters' report on the Central Bank of Nigeria's 2021 ban on cryptocurrency transactions.
[160] See the Central Bank of Nigeria's Payments System Vision 2025, outlining the need for a regulatory framework for stablecoins.
[161] See Reuters' coverage of the Central Bank of Nigeria lifting the ban on crypto trading.
[162] See Ledger Insights' coverage of the launch of Nigeria's regulated stablecoin cNGN.
[163] See Forbes' report that President Tinubu signed the Investment and Securities Act (ISA) 2025 into law.
[164] See the full text of Kenya's VASP bill.
[165] See Bisto's analysis of Kenya's VASP bill.
[166] See Reuters' report on Zimbabwe banning banks from processing payments for cryptocurrencies.
[167] See Techpoint's coverage of Zimbabwe's plans to develop a crypto regulatory framework.
[168] See the Reserve Bank of Zimbabwe's prospectus on the issuance of gold-backed digital tokens.
[169] See BBC News' report on the launch of Zimbabwe's new gold-backed currency ZiG.
[170] See BBC News' analysis of the challenges of facing Zimbabwe's new currency ZiG.
[171] See AP News' coverage of ZiG's limited use and continued dominance of the US dollar in daily transactions.

Oceania

- *Australia*. Australia is advancing reforms to integrate stablecoins into its payments framework. On March 12, 2025, the Australian Treasury released the "*Statement on Developing an Innovative Australian Digital Asset Industry*" (Australian Government, The Treasury, 2025). This statement outlines the government's planned regulatory framework for digital assets. It focuses on four areas: (i) regulation of Digital Asset Platforms (DAPs); (ii) a licensing framework for payment stablecoins; (iii) reform of the Enhanced Regulatory Sandbox; and (iv) exploration of broader applications of digital asset technology. Payment stablecoins will be treated in a form as a tokenised Stored-Value Facility (SVF) under the Payments Licensing Reforms. Issuers and service providers of such stablecoins will be required to meet obligations, including capital adequacy, redemption rights, and reserve disclosure. Under this statement, a Digital Asset Platform (DAP) licensing regime is anticipated. Crypto exchanges, custodians, and stablecoin issuers will be required to hold an Australian Financial Services Licence (AFSL) and adhere to financial services obligations.

Middle East

- *UAE*. The UAE introduced dedicated stablecoin regulations as part of its drive to be a crypto hub. The Central Bank of the UAE (CBUAE) issued the Payment Token Services Regulation (CBUAE, 2024) in July 2024 to oversee stablecoins (termed "Payment Tokens"). This framework mandates licensing for issuers and service providers dealing with stablecoins. It makes the UAE one of the first in the Middle East to have a clear stablecoin regime. Under the CBUAE 's regulation, any entity offering issuance, burning, transfer, or custody of fiat-referenced stablecoins in the UAE must be licensed or registered by the central bank.

  In parallel to the federal framework established by the CBUAE, individual financial free zones within the UAE have also advanced their own regulatory regimes for stablecoins. The Abu Dhabi Global Market (ADGM), through its Financial Services Regulatory Authority (FSRA), proposed a dedicated framework for Fiat-Referenced Tokens (FRTs). Issuers of FRTs within ADGM are subject to robust prudential requirements, including a minimum capital threshold of USD 2 million, reserve backing with high-quality liquid assets, and enforceable redemption mechanisms.[172] Meanwhile, the Dubai Financial Services Authority (DFSA), regulator of the Dubai International Financial Centre (DIFC), formally recognised USDC and EURC as permitted stablecoins for use within DIFC in early 2025.[173]

- *Bahrain*. In July 2025, the Central Bank of Bahrain (CBB) formally introduced a dedicated regulatory framework for stablecoins through its Rulebook, Volume 6, by enacting the Stablecoin Issuance and Offering Module (SIO Module).[174] The SIO Module represents the first formal attempt within the Kingdom to regulate the issuance, management, and offering of stablecoins under a unified supervisory scheme. The framework defines licensing and regulatory obligations for entities engaged in stablecoin-related activities, including issuance, supply management, minting and burning, custody, and reserve asset administration. It mandates that any party conducting stablecoin issuance or distribution services within Bahrain must obtain prior authorisation from the CBB.[175]

Asia Asia has emerged as a global leader in stablecoin regulation. As Coinbase APAC's managing director John O'Loghlen noted, "Asia is set to lead the stablecoin race",[176] with jurisdictions such as Hong Kong, Singapore, and Japan already advancing regulatory frameworks for stablecoins.

- *Singapore*. In August 2023, the Monetary Authority of Singapore (MAS) finalised its regulatory framework[177] for single-currency stablecoins (SCS), positioning Singapore as a global standard-setter in stablecoin regulation. The framework applies to SCS pegged to the Singapore dollar or G10 currencies, provided they are issued within Singapore. To ensure monetary stability and consumer confidence, MAS mandates 100% backing of SCS with high-quality, liquid reserve assets denominated in the same currency as the stablecoin. Issuers must meet minimum base capital requirements of SGD 1 million or 50% of annual operating expenses (whichever is higher), and provide redemption at par value within five business days. The

[172] See Norton Rose Fulbright's analysis of the ADGM's stablecoin proposal.
[173] See Coindesk's report that the DFSA approved USDC and EURC as recognised crypto tokens within the Dubai International Financial Centre.
[174] See Legal500's commentary on the CBB's launch of the SIO Module.
[175] See CBB Rulebook, Vol. 6, SIO Module.
[176] See CCN.com's reporting on stablecoin leadership in Asia, where Coinbase APAC executive John O'Loghlen stated that "*Asia is set to lead the stablecoin race*".
[177] See the MAS' media release announcing the finalisation of its stablecoin regulatory framework.

regime also imposes disclosure obligations, including detailed reports on the mechanisms of value stability, audit outcomes, and rights of token holders. Compliant stablecoins may be designated as "MAS-regulated stablecoins", a status aimed at enhancing market trust.

- *Hong Kong SAR*. In August 2025, Hong Kong formally implemented its first comprehensive regulatory framework for fiat-referenced stablecoins by enacting the "Stablecoins Ordinance",[178] following the legislative approval of the Stablecoins Bill in May 2025.[179] Administered by the Hong Kong Monetary Authority (HKMA), the ordinance introduces a mandatory licensing regime for all entities issuing fiat-backed stablecoins – either domestically or from overseas – if such tokens are offered to the Hong Kong public or reference the Hong Kong dollar (HKD). Licensed issuers must meet a minimum paid-up capital of HKD 25 million, maintain liquid capital of at least HKD 3 million, and ensure full reserve backing with high-quality assets. The ordinance also mandates robust redemption mechanisms, AML/CFT compliance, and detailed disclosure obligations.

- *Japan*. Japan was the first jurisdiction in Asia to enact statutory legislation specifically addressing fiat-backed stablecoins. In June 2022, the Japanese Diet passed amendments to the Payment Services Act[180], which came into force in June 2023. It introduced a new category of digital assets termed electronic payment instruments (EPIs). Under this regime, only licensed entities (banks, trust companies, and registered fund transfer service providers) are permitted to issue fiat-referenced stablecoins. The law mandates 100% reserve backing using Japanese yen-denominated deposits or government securities, with strict segregation of customer assets and full redemption rights. Issuers must also comply with capital adequacy requirements, disclosure obligations, and AML/CFT controls administered by the Financial Services Agency (FSA). The framework prohibits algorithmic stablecoins and imposes restrictions on foreign-issued tokens marketed to Japanese residents. In 2025, the FSA proposed further amendments to incorporate certain stablecoin arrangements into the scope of the Financial Instruments and Exchange Act (FIEA).

- *South Korea*. The Virtual Asset User Protection Act[181], established in July 2024, introduced baseline safeguards for virtual asset service providers (VASPs), including asset segregation, custody obligations, and sanctions against unfair trading practices. While the Act does not directly regulate stablecoins, it laid the institutional foundation for broader digital asset oversight. In June 2025, the government proposed the Digital Asset Basic Act,[182] which is expected to introduce specific requirements for fiat-referenced stablecoins, such as bankruptcy-remote reserve structures, minimum capital thresholds (e.g., KRW 5 million), and redemption rights. However, critics argue that the bill is unfavorable to domestic firms because it draws heavily from the EU's MiCA regulation without adequately reflecting the local market context.[183]

- *China*. China maintains a restrictive regulatory environment toward digital assets. In September 2021, the People's Bank of China (PBoC), along with multiple ministries, declared all cryptocurrency-related business activities, including trading, issuance, and exchange services, to be illegal financial conduct.[184] This ban prohibits entities from engaging in such transactions in mainland China. However, in August 2025, policy signals began to shift. According to multiple media reports, the State Council and the PBoC are deliberating a roadmap[185] for renminbi internationalisation that includes the potential issuance of yuan-backed stablecoins. These tokens would likely be launched via state-controlled financial institutions and circulated offshore to test their viability as cross-border payment instruments without impacting domestic monetary controls. Concurrently, domestic brokers have been instructed to cease public promotion of stablecoins[186]. This reflects a dual-track approach: cautious policy experimentation abroad and strict containment at home.

[178] See the full text of Hong Kong Stablecoins Ordinance.
[179] See Reuters' report on Hong Kong's passage of the stablecoin bill.
[180] See IFLR's analysis of Japan's amendment of the Payment Services Act.
[181] See Financial Services Commission's announcement on the enforcement of the Virtual Asset User Protection Act.
[182] See The Block's coverage of the Digital Asset Basic Act proposing a stablecoin licensing regime in South Korea.
[183] See Dig Watch's report on industry criticism of South Korea's stablecoin regulation bill.
[184] See Reuters' report on China's blanket ban on all crypto transactions and mining.
[185] See Reuters' report on China's proposed roadmap for yuan-backed stablecoins to support renminbi internationalisation.
[186] See Reuters' report on Chinese regulators halting broker research into stablecoins.

C Avoiding regulatory fragmentation: the need for international coordination

C.1 Risks from regulatory fragmentation

There are various risks that emanate from a fragmented regulatory environment for stablecoins, which could undermine the long-term growth and robustness of these instruments.

Financial stability risks:

Fragmented regulation weakens the global financial system's ability to manage the systemic risks posed by stablecoins. Without consistent oversight, supervisors struggle to form a clear view of the capital flows, reserves, and linkages that could transmit shocks. This fragmentation leaves gaps in risk mitigation frameworks and reduces the ability to monitor emerging vulnerabilities. When a loss of confidence in a stablecoin or large-scale redemption requests occurs, jurisdictions may respond in uncoordinated or even contradictory ways. The absence of a coordinated crisis response can amplify contagion, allowing shocks to spread through financial institutions connected to the stablecoin arrangement (CPMI, 2023).

Market-level risks:

- *Regulatory arbitrage*: When jurisdictions apply inconsistent regulatory standards to stablecoins, issuers and service providers may choose to operate in countries with lighter rules (FSB, 2020b; FCA, 2024; FCA, 2025a). This allows them to avoid stricter requirements related to reserve management, consumer protection, or AML/CFT measures. As a result, such regulatory arbitrage behaviour undermines market integrity and creates unfair advantages for actors exploiting the weakest regulatory link.
- *Market fragmentation and impaired fungibility*: Market fragmentation arises when stablecoins are subject to different legal and regulatory treatments across jurisdictions (FSB, 2020b). This undermines their fungibility (CPMI, 2023), which is central to their role as a global medium of exchange and store of value. As a result, the same stablecoin may not be interchangeable across borders, leading to fragmented liquidity and price inefficiency. Transaction costs rise as users and intermediaries must navigate inconsistent rules (FSB, 2023c), and cross-border payments lose the speed and simplicity that stablecoins are meant to provide. The user experience deteriorates as friction, delays, and uncertainty increase, reducing the competitive advantage of stablecoins over traditional payment systems.

Supervisory and enforcement risks:

- *Oversight gaps*: Regulatory fragmentation creates supervisory and enforcement challenges for stablecoin arrangements. Key functions such as reserve management, wallet operations, and redemption processes may fall under different national authorities (FSB, 2020b). A clear example[187] arises when stablecoins move across jurisdictions. Legal claims for redemption may need to shift to locally licensed entities in each jurisdiction. This can require the duplication of reserves or the transfer of assets across borders to satisfy local regulatory requirements.
- *Barriers to data sharing*: Fragmentation hinders cross-border data sharing (FSB, 2020b) and coordinated action. Regulators may struggle to access timely information on transactions, reserves, or operational risks. This reduces the ability to detect early warning signs or respond collectively during stress events.

C.2 UK's efforts towards international coordination

The UK has taken several steps to promote international cooperation and coordination with respect to stablecoin policy.

2019: Libra emerges and UK joins international response

- *Jun 2019 – Libra announcement*. Facebook's proposal of a global stablecoin (Libra) triggered immediate

[187] As noted by OMFIF, jurisdiction-specific licensing and redemption requirements may require stablecoins to be backed separately in each country where they circulate. When stablecoins cross borders, legal claims for redemption may need to shift to a locally regulated entity, which in turn could require duplicating reserves or transferring backing assets across jurisdictions. See the original article here.

concerns in the UK and abroad. In response, the G7 established the "G7 working group on stablecoins"[188] in mid-2019 to examine Libra's implications. The UK participated actively in this initiative.

- *Oct 2019 – G7 report on stablecoins*. The G7 working group on stablecoins delivered its report (G7 working group on stablecoins, 2019) titled "*Investigating the Impact of Global Stablecoins*". It concluded that stablecoins operating at a global scale pose cross-border challenges.

2020: G20 mandate and FSB global recommendations With support from G20 leaders (including the UK Chancellor and BoE Governor), the FSB in April 2020 published a consultation report (FSB, 2020a) addressing the regulatory challenges of global stablecoin arrangements. By October, after incorporating feedback (including from UK authorities), the FSB released 10 high-level recommendations for the regulation, supervision, and oversight of global stablecoins (FSB, 2020b). The UK strongly supported this effort. BoE officials noted that aligning with FSB standards would be critical for risk management (Browning, 2023).

2021: UK policy developments and G7 leadership

- *Jan 2021 - UK Consultation on Stablecoins*. In HM Treasury's consultation paper (HM Treasury, 2021), the government collected views on how to design the rules so that the UK's framework would be robust and consistent with emerging global standards on stablecoins.
- *Jun 2021 – UK Chairs G7*. Under the UK's presidency, G7 Finance Ministers and Central Bank Governors met in London and reiterated a unified stance on global stablecoins. They committed to international cooperation to ensure common standards[189] for stablecoin regulation, recognizing the need to prevent regulatory arbitrage. The UK ministers also endorsed the G20 roadmap on enhancing cross-border payments.

2022: Global response to stablecoin failure

- *May 2022 – G7 urges global action following the TerraUSD collapse*. After the Terra crash in May 2022, the G7 urged the FSB, in close coordination with international standard-setters, to advance the swift development of consistent regulation of cryptoassets. The G7 ministers reaffirmed that no stablecoin (particularly global stablecoin projects) should begin operation until it adequately addresses relevant legal, regulatory and oversight requirements (Ministers et al., 2022). The UK supported this position through its endorsement of the G7's collective stance and set out detailed proposals in its consultation on managing the failure of systemic DSAs (HM Treasury, 2022a), which reflects the same regulatory priorities.
- *Jul 2022 – Global standard-setters issue stablecoin guidance*. By mid-2022, international standard-setters moved from principles to binding guidance on stablecoins. The CPMI and IOSCO published final guidance (CPMI-IOSCO, 2022) confirming that systemically important stablecoins must meet the same standards as critical financial market infrastructures. The UK's influence was notable here. By chairing the CPMI group, Sir Jon Cunliffe[190] helped secure global agreement. The guidance explicitly supported the FSB's work and the G20's cross-border payments roadmap, showing the joined-up international effort.
- *Oct 2022 – FSB crypto-asset framework proposal*. In October 2022, the FSB released a comprehensive proposed framework (FSB, 2022) for the international regulation of crypto-asset activities. The UK authorities actively contributed to this work. The BoE and FCA engaged in the FSB and IOSCO committees to help shape tougher standards.

2023: Finalising global standards and UK implementations

- *Jul 2023 – FSB final reports on crypto and stablecoins*. On 17 July 2023, the FSB published its "*High-level Recommendations for the Regulation, Supervision and Oversight of Crypto-Asset Activities and Markets*" (FSB, 2023a) and a revised set of "*High-level Recommendations for Global Stablecoin Arrangements*" (FSB, 2023b). The FSB called on national authorities to implement these recommendations[191] and indicated it will review global adoption by end-2025. The UK authorities publicly welcomed the FSB's finalised framework. The UK government saw it as validation of the "same risk, same regulatory outcome"

[188] For an official introduction to the G7 working group on stablecoins, see the statement by Benoît Cœuré, Chair of the CPMI, delivered at the G7 Finance Ministers and Central Bank Governors Meeting in Chantilly, France.
[189] See paragraph 18 of the HM Treasury's official publication of the Communiqué.
[190] See BIS press release, which includes Sir Jon Cunliffe's statement highlighting the urgency of addressing stablecoin risks.
[191] See Shoosmiths' article stating the FSB's call for implementations.

approach it had taken. For example, the BoE noted that the FSB's work helped ensure that cryptoassets and stablecoins are subject to the same high standards that they expect in traditional finance (BoE, 2023).

- *Nov 2023 – BoE discussion paper on systemic stablecoins*. In November 2023, the BoE published a discussion paper (BoE, 2023) regarding systemic stablecoins. This paper explicitly positions[192] its proposed framework in line with international regulatory standards such as the FSB's recommendations on global stablecoin arrangements and CPMI-IOSCO's rules on regulating systemically important stablecoins.

2024 onward: Ongoing international engagement

- *2024 – Regulatory alignment*. In 2024, UK authorities continued to align domestic crypto regulation with international standards. The BoE and FCA are monitoring the worldwide implementation of FSB recommendations and participating in any updates. In November 2024, the FCA reaffirmed[193] its role in "collaborating with government, international partners and industry to develop the UK's cryptoasset regulatory regime and lead international standards in this space".
- *Apr 2025 – Exemption of overseas issuers*. In April 2025, Chancellor Rachel Reeves announced[194] that overseas stablecoin issuers would be exempt from new UK rules. This aligns the UK more closely with US policy and removes regulatory barriers for cross-border stablecoin adoption.
- *May 2025 – Interoperability and regulatory harmonisation*. UK regulators define stablecoin interoperability as the ability for stablecoins to function seamlessly with other forms of money and across different payment systems. In practice, this means users should be able to switch or convert a stablecoin into other currencies or assets without friction, maintaining equal value (par convertibility) at all times. Interoperability has multiple layers: a technical layer, which requires compatible infrastructure or standards to enable stablecoin networks to communicate, and a regulatory/operational layer, ensuring common rules (e.g., AML standards) to facilitate smooth transfers between systems or jurisdictions.

  UK authorities stress that stablecoin interoperability is crucial to preserving the singleness of money. The BoE warns that without interoperability, new digital monies could form closed loops or fragmented payment networks, undermining efficiency and trust. In a 2025 speech[195], BoE Executive Director Sarah Breeden underscored the critical importance of interoperability in preserving the singleness of money and mitigating regulatory fragmentation. She noted interoperability has "hard" technical aspects (e.g., common standards or even unified ledgers) and "soft" aspects (e.g., aligned regulatory requirements). In short, the UK perceives interoperability as a public good that prevents isolated networks and guards against fragmentation or loss of monetary sovereignty as stablecoins emerge.

Insight from Adrian Albert Koch, CEO at DeltaPay

Adrian Albert Koch emphasizes that while competition among systems is valuable, *interoperability* is the key to preventing fragmentation in markets already characterised by a patchwork of mobile wallets, bank transfers, and cash equivalents. Stablecoins should strengthen monetary coherence rather than introduce parallel currencies or isolated value systems.

C.3 Potential international coordination mechanisms the UK could consider

While the UK frequently states its intention to align with international standards, it has not established detailed mechanisms for regulatory interoperability or mutual recognition with other jurisdictions. There is currently no clear framework for passporting or equivalence that would enable seamless cross-border operation of stablecoins. Moreover, although UK authorities participate in global standard-setting bodies such as IOSCO, BIS, and the FSB, their role in shaping core technical standards remains limited in areas such as reserve asset disclosure, on-chain transparency tools, and smart contract audit requirements. These technical details are important for meaningful regulatory coordination and cross-border operational compatibility. In light of these gaps, we outline several potential global coordination mechanisms the UK should consider.

[192] See §2.3 of BoE (2023).
[193] See the FCA's position on cryptoasset exchange trade notes for professional investors.
[194] See Financial Times' coverage stating the UK will exempt overseas stablecoin issuers from complying with its new cryptocurrency rules and will foster closer cooperation with the US to regulate stablecoins.
[195] See Sarah Breeden's speech regarding interoperability and regulatory harmonisation.

- **Proactively establishing an equivalence framework for stablecoins**. The UK could develop a formal "equivalence" regime for stablecoins. This would allow foreign stablecoins to be recognised as compliant with UK regulatory standards, enabling their use within the UK markets without duplicative licensing or authorisation procedures. This approach draws on the broader equivalence mechanisms[196] embedded across the EU's financial regulatory framework. In various instruments (e.g., MiFID II, EMIR, and Solvency II)[197] the European Commission may determine that a third country's regulatory regime is equivalent to EU standards in specific areas, thereby permitting cross-border access to EU markets. Although such determinations are unilateral, they are based on a structured assessment of the third country's legal framework, supervisory practices, and enforcement capacity.

  A similar model could be applied to stablecoins, bringing clarity and efficiency to the UK's treatment of overseas stablecoins. UK authorities would identify jurisdictions with robust regulatory frameworks, particularly in relation to reserve backing, consumer protection, and disclosure. UK regulators could then designate compliant stablecoins from those jurisdictions as eligible for use in UK payment systems. Importantly, such a framework would support cross-border regulatory alignment without compromising prudential standards. At present, the UK lacks such a regime. The FCA 's earlier discussion paper DP23/4 (FCA, 2023) outlined a model whereby overseas-issued stablecoins could enter the UK market through authorised "payment arrangers" responsible for ensuring regulatory standards. However, this remains a case-by-case process rather than a systematic equivalence pathway.

- **Strengthening the UK's role in cross-border stablecoin technical standard-setting**. The UK has not yet been deeply involved in setting detailed technical standards for stablecoins in cross-border regulatory cooperation. While the UK actively participates in international discussions and has helped shape high-level policies, it has played a secondary role in developing technical rules (e.g., standardised reserve disclosures, on-chain monitoring frameworks, smart contract audit guidelines). To date, the UK has aligned with international standards rather than leading the creation of new technical standards.

  To strengthen the UK's role in cross-border stablecoin technical standard-setting, the UK could draft standardised templates for key disclosures (e.g., a common format for stablecoin reserve reports), then share these in international fora. For instance, UK regulators, in collaboration with professional bodies, might create a model disclosure framework similar to the AICPA's criteria,[198] but applicable internationally. Circulating such a template through IOSCO or the CPMI could jump-start broader adoption. Similarly, UK regulators could publish minimum expectations for stablecoin smart contract audits and then advocate for these to inform IOSCO's standards. By providing concrete technical documents for discussion, the UK would actively contribute to the development of international standards.

  To facilitate stablecoin interoperability, the UK could spearhead an international initiative to set technical standards in areas such as messaging formats, API standards, identity/AML data sharing, and ledger interoperability protocols. The UK could establish a global working group to define common APIs for stablecoin payment initiation and redemption, or standards for how stablecoin issuers connect to central bank settlement systems. By championing standards, the UK could help ensure that different stablecoin networks and central bank digital currencies can communicate with each other and with bank payment systems. If every jurisdiction enforced the same core technical requirements for stablecoins, interoperability would be much easier to achieve.

  In addition, the UK could pilot on-chain supervisory tools within its sandbox environment, such as smart contract-based reserve attestation or automated redemption trigger, sharing these frameworks with the BIS Innovation Hub. By designing such tools, UK regulators could draw upon industry-developed mechanisms such as Chainlink's Proof of Reserve, which offers real-time on-chain verification of reserve assets. By adapting and refining these ideas for regulatory use, the UK could convert technical prototypes into credible cross-border supervision templates and build more robust infrastructure for stablecoin oversight.

[196] See the European Commission's statement on the equivalence mechanisms.
[197] See the list of equivalence decisions adopted by the European Commission in the area of banking and finance.
[198] See AICPA's 2025 criteria for stablecoin reporting.