

WHITE PAPER

Stablecoins

Five killer tests to gauge their potential

May 2025

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Stablecoins are having a breakout moment, with economic, strategic, and regulatory fundamentals driving adoption. Five killer tests can help market participants gauge their long-term potential.

Imagine an economy powered by internet-based money, in which near-instant payments cost a fraction of today's prices, in which AI agents act autonomously to shop online and invest, and in which complex treasury operations can be 'vibe coded' for automation. This is the brave new world powered by stablecoins, once only touted by digital evangelists but now seemingly on the brink of a breakout year. In that context, the urgent task for financial industry leaders is to gauge whether there are significant opportunities and if so, how they can add value in fast-evolving landscape.

The fintech mantra for 2025 is that "stablecoins have found product-market fit," according to Silicon Valley venture capital firm Andreessen Horowitz.¹ Indeed, by the end of 2024, stablecoins had a market cap of more than \$210 billion, amid 57% year-on-year growth and transaction volumes that hit an astonishing \$26.1 trillion.² While the vast majority of volumes were related to crypto trading and decentralized finance (DeFi), we estimate that 5-10%—still an impressive \$1.3 trillion—were genuine payments transactions in activities such as cross-border remittances, corporate treasury, and retail in geographies including Turkey, Nigeria, and Dubai.³ These kinds of use cases represented about 10% of the total 2024 transaction count⁴, driven by lower value payments as transaction costs fell.

Positive sentiment around stablecoins has been matched by IPO and M&A talk. The recent standout example was Ripple's \$4 billion to \$5 billion bid for Circle Internet Group (owner of the \$55 billion market cap USDC stablecoin⁵), which was rejected by the stablecoin issuer, alongside rumored listing ambitions from the likes of Circle, Kraken, Gemini, Binance, and Bitso.

Still, we have been here before. In 2017 and 2021, unprecedented hype around digital assets was abruptly cut short by 'crypto winter' sell-offs, regulatory alarm, and bankruptcies. In this paper, we cut through the current noise to pressure-test the stablecoin value proposition and gauge its long-term potential. We structure the discussion around five killer tests:

- Do stablecoins offer incremental value compared with existing forms of money movement?
- Is there a market for real-world stablecoin use cases outside crypto trading and DeFi?
- Are companies across the value chain building viable business models?
- Do geopolitical and regulatory drivers support mass adoption?
- Can stablecoins co-exist with central bank digital currencies (CBDC) and tokenized deposits (TD)?

1. A16z, 'State of Crypto Report 2024', October 2024.

2. Visa Onchain Analytics Dashboard.

3. *Ibid.*, BCG analysis.

4. Defined as the quantity or number of stablecoin transactions in 2024.

5. Market cap as per March 2025.

Stablecoins 101

Stablecoins are digital tokens (controllable electronic records⁶) designed to maintain a stable value. Unlike free-floating cryptocurrencies, in which the value fluctuates with supply and demand, they are typically pegged to fiat currencies (about 99% are pegged to the US dollar). The peg is supported by at least 100% collateralization to enable stablecoin issuers to honor one-to-one redeemability at par value with the pegged fiat currency. This is achieved through cash, US Treasuries, or other high-quality liquid assets (HQLA) held in custody by a regulated custodian. The reserve is increasingly expected by regulators to be transparent and subject to quarterly audits of collateral composition and value. There are two main collateralization models: fiat-backed (including USDT and USDC) and algorithmic-backed (including DAO and the now-defunct TerraUSD). Following the Terra-Luna collapse in 2022, regulators have taken a skeptical view of algorithmic models. Thus, in this article, we focus on fiat-backed stablecoins, which are the most liquid.

The stablecoin market cap exceeded \$210 billion at the end of 2024, amid \$26.1 trillion in transaction volumes.⁷ Our analysis suggests that the majority of volumes (about 88%) was related to arbitrage and trading pairs facilitated on crypto exchanges. Payments use cases are in their relative infancy. The market is currently led by Tether (USDT) and Circle (USDC), which collectively account for approximately 90% of supply.

Exhibit 1 - The Competitive Landscape is Dominated by Private Companies

 Market capitalization (in billion USD)	 Fiat currency	 Description	 Blockchain platform	 Issuer
USDT 	Pegged to US dollar	Diversified reserves consisting of US government bonds, money market funds, collateralized loans, and other cryptocurrencies (e.g., BTC).	Ethereum, Tron, Solana, Binance, Aptos	Tether
USDC 		- High level of transparency in reserve management structure - Regular checks (audits) - Focus exclusively on cash and short-term US government bonds	Ethereum, Solana, Base, Binance, Aptos	Circle
USDe 		- Combination of decentralized reserves and market-based hedging strategy - Use of ETH-based derivatives and futures	Ethereum, Solana, Aptos	Ethena
DAI 		- Overcollateralized (each DAI secured by collateral and one US dollar) - Collateralization with other cryptocurrencies, stablecoins, and real assets	Ethereum, Polygon, Base	Maker
FDUSD 		- Covered by assets with a corresponding market value - Reserves held in completely separate, insolvency-proof holding structures	Ethereum, Solana	First Digital
PYUSD 		Fully covered by deposits in US dollars, short-term US government bonds, and cash-like assets	Ethereum, Solana	Paxos
Frax 		- Coupling based on a partial reserve system - Partially covered by collateral such as USDC and other stablecoins - Stabilization with algorithmic adjustments	Ethereum, Avalanche, Polygon, Solana	Frax Finance
RLUSD 		Fully covered by US dollar deposits, short-term US government bonds, and equivalent liquid assets	Ethereum, XRP Ledger	Ripple

Sources: CoinMarketCap (as of March 2025); BCG analysis.

6. Digital Assets such as stablecoins are defined as 'Controllable Electronic Records' as per the Digital Asset Taxonomy issued by the CFTC Global Markets Advisory Committee for Digital Assets Markets, of which BCG was a contributing author. This means where one or more parties can exclusively exercise control through transfer of this record, and where the controllable electronic record is uniquely identifiable (excluding electronic records that function solely part of an institution's books or records).

7. The Block.

On balance, our work points to an affirmative conclusion: The unique attributes of stablecoins and demand signals outside crypto trading and DeFi create meaningful revenue opportunities in specific use cases, geographies, and payment corridors. In the shorter-term, value is likely to accrue to stablecoin issuers and the financial institutions that serve them. Longer-term potential lies in the scaling of non-bank use cases such as cross-border payments to the Global South, B2B payments, and corporate treasury, as stablecoin becomes established as an accessible, liquid, global infrastructure layer. Stablecoins can also solve longstanding challenges around cost and transparency and play a vital role in the digital economy of the future, but they are unlikely to supplant central bank digital currencies (CBDC) and tokenized deposits offered by central banks and commercial banks. Equally, they will not replace central bank or commercial bank money, instead playing a distinct role in wholesale and retail ecosystems.

Do Stablecoins Offer Incremental Value Compared with Existing Forms of Money Movement?

In stark contrast to existing payments infrastructure, the potential that stablecoins offer to create incremental value is often characterized as being transformative. Here we subject this claim to tests across four core dimensions— transaction speed, transaction costs, traceability, and automation potential, with some surprising results:

Transaction speed | The growth of real-time payments (RTP) point to a period of transformation across bank payment rails globally. For example, Pix in Brazil and UPI in India together accounted for approximately \$6.8 trillion of transaction volumes in 2024 and are now the dominant payment methods in those countries.^{8,9} Real-time transaction settlement is now embedding in retail payments and innovations such as open banking, in which banks open up their data and APIs to third-parties, and is enabling innovators to build diverse services on real-time rails. In cross-border payments, fintechs such as Wise have pioneered rapid settlement (more than 50% of Wise payments settle in less than 20 seconds¹⁰). Wise has built a netting model enabled by direct connectivity to local payments systems, with local bank accounts used to settle net flows, thus avoiding the costs of correspondent banking.¹¹ Even in correspondent banking, the most significant corridors now benefit from same day settlement (90% within one hour) and real-time tracking through SWIFT GPI.¹² Delayed multi-day settlement remains a challenge outside the top-10 corridors, focused on the Global South. And it is there, such as in US-Africa, where we see stablecoin cross-border volumes proliferating most (although speed is not the only driver). Also, while stablecoin transfers on blockchain networks occur in near real-time¹³, off-ramping remains a challenge, due to the sometimes limited availability of local liquidity providers and sparse RTP infrastructure to pull stablecoin payments into the existing payments ecosystem. Though off-ramp liquidity and FX solutions have emerged (e.g., Bitso, Paxos, Circle), coverage is limited and hampered by fragmented regulation. Thus, the end-to-end improvement in settlement speed offered by stablecoin remains incremental, though improvable in the medium-term, in most geographies.

8. Central Bank of Brazil.

9. Reserve Bank of India.

10. Wise.

11. *Ibid.*

12. SWIFT.

13. Ethereum for example, would occur typically in 15–60 seconds depending on gas fees and network congestion at the time of writing, but higher throughput L2s and Solana occur more quickly.

Transaction costs | Transaction economics differ sharply by geography and use case. Domestically, stablecoins compete head-to-head with RTP and account-to-account (A2A) schemes whose clearing fees are already lower than those of cards rails. Here, stablecoins only offer incremental savings as for example, FedNow costs \$0.05. The savings become more meaningful once a payment travels internationally. A native stablecoin transfer can settle for as min. as \$0.0001 on Aptos, \$0.0004 on Polygon, and a minimum of \$0.01 on Ethereum—which still hosts roughly half of all outstanding stablecoins—or a minimum of \$3–6 on Tron. Still, so-called gas prices fluctuate based on network demand and at any given moment can skyrocket. For example, in May, Ethereum USDT gas fees ranged from \$0.02 to \$3.33 per transaction.¹⁴

Against that backdrop, a bank-initiated international wire absorbs up to 13.65% of the principal after correspondent fees and FX spreads.¹⁵ Even the most efficient cross-border fintechs charge on average 1.25%, with significant variations based on corridor, which also impacts timing.¹⁶ Still, the headline advantage, narrows once stablecoins are off-ramped. On- and off-ramp charges vary by channel, fiat currency and geography: major exchanges typically levy 0.1–1 %, specialized financial services providers charge 1–3 %, and crypto-enabled ATMs as much as 7%. Adding those frictions back into the total cost is essential for a true like-for-like comparison with traditional rails. Once the adjustment is made, the end-to-end cost advantage offered by stablecoins varies significantly by on/off ramp operations and network and is largely confined to cross-border transactions.

Traceability | Stablecoins undeniably offer a new paradigm for transparency, due to the nature of the blockchain construct, where transactions are typically immutable and available for all participants to view in near real time. Compared to domestic bank payments—including card rails and RTPs—data is arguably more granular and accessible at network level. Settlement speed (prior to off-ramping) eliminates the need for payments tracing and re-solves settlement uncertainty. However, networks today also lack the structured metadata, consumer protections, and legal clarity embedded in existing payments infrastructure, particularly in the context of innovations such as SWIFT GPI and ISO 20022, which offer improved end-to-end tracking and data richness. In addition, switching to blockchain technologies could drive fragmentation and a loss of network effects. There are more than 11,000 member banks, for example, in the SWIFT network, with more than 4,000 signed up to SWIFT GPI. Replicating that density on a new blockchain network will take time and brings risks. That said, stablecoin technical transparency means they may lead on traceability overall.

Automation potential | Stablecoins on blockchain networks that offer smart contract compatibility, such as Ethereum, benefit from the ability to drive an unprecedented level of automation through ‘if...then’ logic, coded at asset level. This is known as programmability, which creates new opportunities for unlimited, composable automation in clearing and settlement (e.g., true delivery-vs-payment settlement), post-trade, and other financial workflows and operations. Programmability has been a driver of stablecoin adoption in capital markets, where they are used to settle transactions in the fast-growing tokenized asset space (although these are also the only widely available asset that can provide native on-chain settlement against stablecoins at this stage). Use cases such as agentic commerce and conditional and escrow payments also require programmable automation but are yet to reach meaningful volumes. Meanwhile, use cases such as pre-paid cards offer good protection for consumers – as seen in the large-scale e-CNY pilot through smart contracts.

¹⁴. Gas fee prices are from gasfeenow.com.

¹⁵. Average price for a \$200 bank initiated cross, according to the World Bank. Prices fluctuate depending on corridor and bank service availability.

¹⁶. Average transaction cost published by Wise for \$200 transaction between USD and MXN. Prices fluctuate based on corridors and funding mechanism.

Traditional payment systems are also not standing still. Future-dated transfers and subscription payments are now the norm, while recurring variable payments (VRP) are progressing through open banking in the UK. These features are increasingly offered with strong consumer protections and integration into regulated financial infrastructure; key areas of friction for stablecoins. We have therefore seen limited real-world deployment of theoretical programmability benefits and the incremental benefit over existing bank-based automation is currently marginal for most use cases. Still, as regulation evolves and smart contract risk is mitigated, programmable payment adoption is likely to grow, with the agentic AI commerce trend acting as a tailwind. We therefore expect stablecoins to have an advantage in this dimension.

To conclude, the incremental value potential of stablecoins remains limited in the near-term across the four dimensions, but the longer-term potential is significant. Viewing these dimensions individually, however, is also somewhat misleading. We believe that what is truly unique about stablecoins (and other forms of money like CBDCs and TDs) is the way they elegantly interact to provide solutions across all dimensions. In isolation, they may be matched in part by different elements of the current payments infrastructure, but not in the round. We are therefore convinced that the medium-to-longer-term value proposition will become increasingly compelling as payment use cases continue to scale.

Exhibit 2 - The Stablecoin Value Proposition Offers Benefits Across Dimensions

Stablecoins show greater strength than existing market options in cross border and automation

	Domestic	Cross border	Stablecoins
Speed	- RTP systems (e.g. SEPA Inst, PIX, UPI) offering instant settlement - Open Banking payments offer near instant settlement - Credit transfers can take 1–2 business	- Remittance specialists (e.g., Wise) can offer 20 sec settlement¹ - SWIFT GPI enables same day settlement in most important corridors - Bank initiated payments can take up to 5 business days	 Offers near to instant settlement regardless the origin or destination or the funds and/or size of the transaction
Costs	- RTP systems transactions costs ranges \$0.03–\$0.05 per trx - Open Banking transactions costs range from 0.1% to 1%	- Remittance specialists' transactions costs on average 1.25% - Bank initiated international payments to absorb on avg. 13.65% of the principal	 - Transaction costs from largest two networks are Ethereum at min. \$0.01/trx) and Tron at \$3–6/trx - On/Off ramping costs should also be added (up to 7% of value)
Traceability	- RTP systems have integrated real time notification status - Open Banking allow real time monitoring and data access for third parties	- Remittance specialists provide real time status on transaction - SWIFT GPI ISO 20022 provides E2E tracking information - Bank initiated payments can lead to limit visibility of payments status	 Blockchain gradient traceability, however data is complex to exploit or to consume
Automation	Automation is limited to rule definition and does not cover more complex use cases that required intelligence built-in capabilities		 Programmability offers a unique way to introduce conditional payments features built on top of Blockchain based payments

 Better in all dimensions
  Better in most of dimensions
  Equal in some dimensions

Note: Illustrative comparison between existing payments instruments.

Is There a Market for Real-world Stablecoin Use Cases Outside Crypto Trading and De-Fi?

In this test, we present a teardown of \$26.1 trillion of stablecoin transactions and corresponding 5.6 billion transaction count in 2024. We segment volumes to isolate the adoption of use cases beyond crypto trading and DeFi and combine them with qualitative observations to gauge the significance and momentum of real-world adoption.

We have used stablecoin market data and categorization from the ‘Visa Onchain Dashboard’, which is powered by Allium. We have also held discussions with Allium to understand the data and discuss our methodology. When we remove the use of stablecoins as a crypto trading pair (including DeFi) and on/off-ramping activity—approximately \$24 trillion, or 92% of total transaction value—we are left with \$2.1 trillion in volume, or 8%. This volume breaks down broadly into tokenized asset settlement (3%) and payments (5%).

Table 1 - 2024 Stablecoin Transaction Value and Transaction Count Breakdown

USE CASE	PERCENTAGE	TRANSACTION VALUE	SOURCES
Crypto Trading Pairing	88%	\$23.0 trillion	CEX.IO, Chainalysis, CoinMetrics. Assumes ~88% of stablecoin volume is for arbitrage and liquidity routing between CEXs/DEXs, as consistently reported by analytics platforms and echoed in institutional crypto flow studies.
On/Off-Ramping	4%	\$1.0 trillion	MetaMask, Crypto.com, Visa OnChain Dashboard. Refers to stablecoin flows bridging wallets and exchanges. Assumed at 4% based on Allium wallet inflow/outflow heuristics and usage spikes during market events.
Tokenized RWA ¹⁷ Settlement	3%	\$0.8 trillion	Franklin Templeton, BlackRock, Allium. Based on tokenized money market fund pilot volumes and early traction in on-chain treasuries. Estimated at 3% due to current AUM/tokenization use still being low versus total stablecoin flows.
Payments - P2P	2%	\$0.5 trillion	Visa OnChain Dashboard, Circle, Chainalysis. Includes wallet-based transfers and remittances. Growth driven by emerging markets using stablecoins as daily USD proxy, assumed at 2% of volume.
Payments - B2C/C2B	2%	\$0.4 trillion	Visa OnChain Dashboard, Circle. Derived from Circle’s merchant integration data (e.g., Shopify, Stripe) and on-chain retail spend tracking. Assumed modest growth at 1.5% as commercial usage expands.
Payments - B2B	2%	\$0.4 trillion	Visa OnChain Dashboard, Chainalysis. Includes stablecoin usage in treasury, FX, and invoice settlement by SMEs and fintechs. Also estimated at 1.5%, with observed adoption by global service providers.
Total	100%	\$26.1 trillion	Visa Onchain Dashboard chart showing ~\$26.1 trillion unfiltered stablecoin txn values and ~4.5B unfiltered stablecoin txns across major blockchains and assets.

Source: Visa & Allium stablecoin dashboard.¹⁸

¹⁷. RWA: Real-world assets.

¹⁸. Visa Onchain dashboard (powered by Allium).

TOKENIZED RWA SETTLEMENT

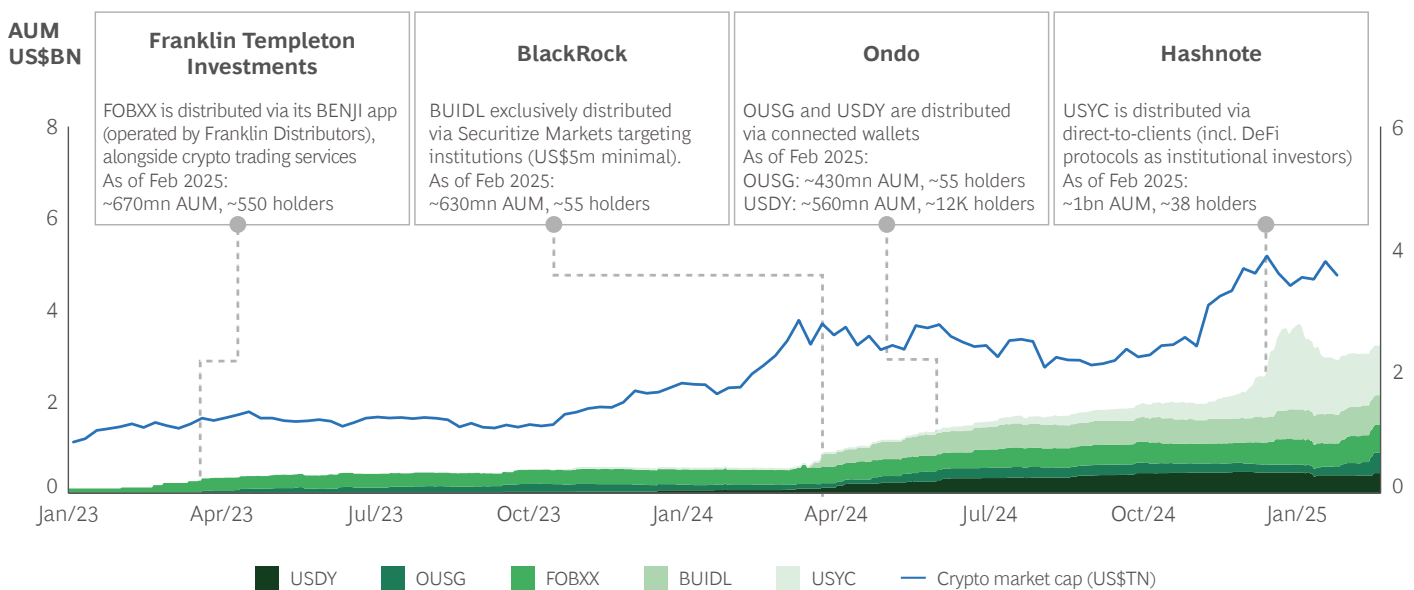
Tokenization of real-world assets (RWAs) has seen rapid growth, reflecting rising demand for yield-generating opportunities from on-chain investors holding stablecoins. Tokenized RWA has reached a total value of about \$22 billion¹⁹, after tripling over the past two years with tokenized funds as a key component. Our paper 'Tokenized Funds: The Third Revolution in Asset Management Decoded' focuses on this topic.

PAYMENTS

In payments, the market has reached new heights in terms of R&D and innovation velocity as banks and PSPs scramble to define their stablecoin strategies. Among examples, Circle recently launched the Circle Payments Network (CPN) in partnership with Standard Chartered, Deutsche Bank, Société Générale, and Santander as well as other Non-bank players. CPN has positioned itself as a direct challenger to cross-border payments market leader SWIFT. The move signals a business model pivot for Circle—away from reserve-driven interest income and toward transaction-based revenue generation akin to Visa or Mastercard. The deal thesis is clear: build a programmable, instant-settlement network that integrates stablecoins into core financial infrastructure. Notably, CPN is poised to enable global settlement using the stablecoin USDC to unlock new capabilities in FX, trade finance, and treasury.²⁰

Exhibit 3 - Tokenized real-world assets source initial flows from on-chain money

Tokenized Money Market Funds Case Study



Sources: RWA.xyz, Statista.

19. RWA: Real-world assets.

20. Circle.

Another key trend is agentic commerce, for which stablecoin payments can act as enablers. To this end, Coinbase has introduced x402—a novel open standard that repurposes the long-dormant HTTP 402 “Payment Required” status code to facilitate instant stablecoin payments directly over the web. The protocol enables AI agents and applications to autonomously execute payments using stablecoins like USDC, eliminating the need for traditional payment intermediaries or manual processes. By embedding payment capabilities into standard HTTP interactions, x402 allows AI agents to seamlessly transact for APIs, digital services, and content, thereby streamlining machine-to-machine commerce. This is particularly relevant in the context of agentic AI, because autonomous software agents require the ability to perform transactions independently. x402’s integration with Coinbase’s AgentKit further empowers developers to equip AI agents with on-chain wallets and payment functionalities, fostering a more dynamic and efficient digital economy. By bridging the gap between AI autonomy and financial transactions, x402 stands to play a pivotal role in shaping the infrastructure of future digital commerce.²¹

M&A and fundraising is also heating up beyond the acquisition of Bridge by Stripe, with recent deals including:

- **Visa’s strategic investment in BVNK:** Reflecting a bet on stablecoin as an infrastructure layer to support global payments flows.
- **Ripple, Circle and the IPO:** Hot on the tails of Circle’s IPO filing, Ripple reportedly bid \$4-5 billion (unsuccessfully) to acquire Circle, months after the launch of Ripple’s own stablecoin RLUSD, which achieved a \$300 billion market cap.
- **Moonpay’s purchase of Iron/Helio:** A push into real-time, stablecoin-based payments for Web3 commerce.
- **Ripple’s acquisition of Hidden Road:** Bringing institutional-level liquidity and credit to stablecoin markets.

Some of these deals have the potential to be much more than speculative “me-too” plays. Rather, they may turn out to be smart strategic bets on controlling the next generation of payments infrastructure, centered around three key use cases:

CROSS-BORDER PAYMENTS

Stablecoins mitigate inefficiencies in traditional cross-border payment systems that include high transaction fees, slow settlement times, and opaque FX mark-ups. Instead, they offer near-instant settlement, lower costs, and greater transparency. That said, competition in the payments sector is ferocious, with fintechs including Wise, Revolut, and Remitly achieving significant success by addressing payment market inefficiencies and offering cost-effective, transparent, and fast international transfers on existing financial infrastructure.

²¹. Coinbase.

To better illustrate these dynamics, consider Maria, who regularly sends \$200 from the US to her family in Mexico. Using Wise, Maria simply initiates transfers through an intuitive mobile app, paying a fee of about \$3.50 and benefiting from competitive exchange rates and swift delivery, typically within minutes to hours. Conversely, if Maria opts for a stablecoin such as USDC, she enjoys low blockchain transaction fees and near-instant transfers, but her family faces additional costs when off-ramping USDC into Pesos, navigating across local crypto exchanges or other off-ramping providers. The conversion could raise overall costs to between \$4 and \$10. We expect that these may fall in future, amid initiatives such as the partnership between Moneygram and CompoSecure to allow users to convert physical cash to USDC and withdraw cash at MoneyGram locations. Similarly Bridge, which has prioritized the US-LatAm corridor, has launched on/off-ramping FX through its platform. About 10% of cross-border remittances are now reported to be through stablecoins and cryptocurrencies.²² Meanwhile, Bitso processes up to 10% of remittance volumes on the Mexico–U.S. corridor, underscoring trust in the technology.²³

In B2B cross-border transactions, switching from traditional banking to stablecoins requires new custody setups, approval processes, accounting methods, treasury system updates, as well as revised compliance procedures for sanctions and anti-money laundering rules. All these changes must be made before any cost savings can be realized, meaning lower fees are just one factor in a larger assessment. But, again, the market is evolving rapidly. For example, the CPN is working to create a real-time, programmable, and compliance-focused framework that directly connects financial institutions to enable seamless cross-border settlement using regulated stablecoins including USDC and EURC. CPN is working not only with commercial banks, but also with leading Web 3 wallet infrastructure providers such as Fireblocks (which already operates a network with over 2,000 participants). The initiative is perhaps the most ambitious and scaled attempt to create a global blockchain network focused on cross-border payments. We believe that the combination of stablecoins, institutional coordination, and a governance layer purpose-built for financial institutions will be hard to match.

That said, the stablecoin cross-border market today remains limited to specific environments. Typically, where there are weak or volatile currencies, stablecoins are preferred because they allow users to retain access to US dollar liquidity, as well as offering effective value storage and transfers outside traditional infrastructure. This is the case in markets including Turkey and Nigeria, where local currency weakness and inflation has driven transactions to remain on-chain, benefitting from frictionless intra-chain movements and seamless interactions with DeFi products for underserved populations. Some costs are also falling. The price to send USDC through Ethereum and Base L2 has dropped significantly in the past two years (to <\$1 and <\$0.01 respectively). That said, off-ramping cost have not seen the same adjustments. Moreover, there remain significant accessibility barriers for less tech-savvy individuals, security concerns relating to fraud and custody risks, and ongoing regulatory and compliance uncertainties. Collectively, these are significant headwinds to widespread adoption.

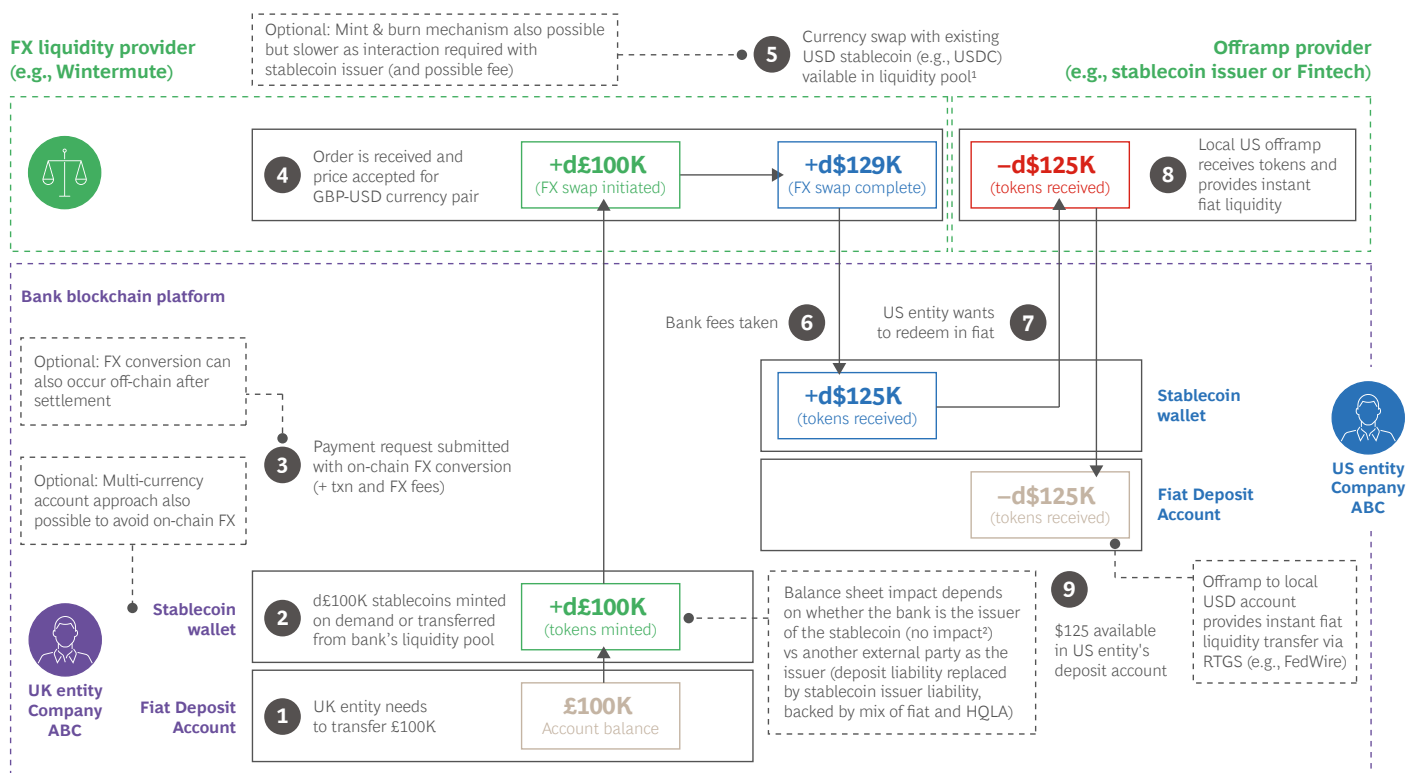
TREASURY AND CASH MANAGEMENT

In treasury operations, speed and liquidity are critical to ensure fast access to cash or cash equivalents, to cover short-term obligations such as accounts payable and operational expenses, and to optimize returns on surplus cash. Stablecoins are proving their utility because the space lacks an instant liquidity layer with rapid transferability, continuous availability (24/7), and applications outside traditional banking systems. Companies as diverse as Ferrari and SpaceX are now using stablecoins for treasury and cash management.

22. Artemis.xyz, via Tokenized newsletter (Simon Taylor, Fintech Brainfood; Pet Berisha, Sporting Crypto; Jeremy Batchelder).

23. <https://business.bitso.com/blog/what-does-launching-a-stablecoin-pegged-to-the-mexican-peso-mean>.

Exhibit 4 - Anatomy of XB corporate treasury txn between a corporation's UK and US entity, facilitated by a bank's DLT network issuing GBP stablecoin



Source:

¹Illustrative exchange rate of 1.29 assumed for GBP:USD.

²Assumes stablecoin issued is 100% fiat backed, otherwise balance sheet composition changes.

Consider a scenario involving cross-border treasury transaction between a corporation's UK and US entities facilitated by a bank's blockchain-based network issuing stablecoins. In this scenario, the UK entity initiates a transaction to transfer £100,000. The bank mints stablecoins equivalent to the transferred amount, providing instant liquidity. An FX liquidity provider executes a real-time currency swap from GBP stablecoins into USD stablecoins, significantly reducing delays and FX exposure risks. Almost instantaneously, the US entity receives stablecoins and off-ramps them to its local USD account, where fiat currency becomes instantly available. Not only is the process fast and efficient, but it also dissolves common pain points including prolonged settlement times, FX volatility exposure, and costly intermediary processes (e.g., correspondent bank). Meanwhile, the technology's inherent transparency enhances reporting accuracy and simplifies auditing.

Still, the model is not without limitations and challenges that reflect many of the inefficiencies in Treasury transactions, including the cost of on/off ramping or the implications for tier 2/3 banks, which would need to connect through a third party, creating a structure similar to the current corresponding bank framework.

Stablecoins can create further value in treasury management through sub-use cases where faster settlement is critical. For example, stablecoins can play a significant role in collateral mobility by providing the payment leg for on-chain repo transactions with near-instant delivery-vs-payment settlement. Kinexys by JPMorgan use JPM Coin in this way – though we note that the asset is a TD and any use of stablecoin in the wholesale ecosystem may look fundamentally different (for example, 100% collateralization by central banks reserves). More broadly, tokenized collateral networks are a significant opportunity. Due to operational silos, moving collateral in traditional financial systems can be slow and cumbersome. However, tokenizing high-quality liquid assets such as money market funds (MMF), shares, or government securities allows for instant transfer via shared ledgers, thereby enhancing efficiency and reducing operational friction.

Adopting stablecoins in treasury operations is not without challenges. For example, infrastructure fragmentation across blockchain networks limits interoperability, complicating the sharing of information and validation of transactions, especially at scale. Bridging solutions designed to address interoperability issues frequently introduce vulnerabilities, resulting in increased costs, delays, and security risks, including instances of hacks. Moreover, regulatory fragmentation creates compliance complexity that can impede efficient operations.

Another significant challenge involves foreign exchange (FX) considerations. As stablecoins are predominantly dollar-denominated, users often encounter friction and additional costs when converting between stablecoins and local fiat currencies. Furthermore, large-scale conversions from stablecoins to fiat currencies can face liquidity constraints, particularly in volatile market conditions. This potentially restricts their utility in some scenarios. To mitigate these challenges, some financial institutions are beginning to integrate FX business lines directly into their stablecoin offerings. We discuss this issue in a paper co-authored a paper with Fireblocks (“Revolutionizing Cross-Border transactions with Permissioned DeFi”).

MERCHANT ACCEPTANCE

The number of stablecoin use cases in merchant acceptance is rising steadily from a low base. One leading market is Dubai, which boasts a proactive regulatory environment, merchant acceptance incentives, and a ‘crypto bro’ culture that is creating consumer demand to pay in stablecoin. In other regions, acceptance is being impacted by the integration of blockchain based payments into consumer offerings, creating an adoption flywheel that pushes merchants to demand payment acceptance solutions for blockchain-based payments. For instance, Brazil’s instant payment system PIX is partnering with blockchain-based players to enable on-ramp capabilities to integrate stablecoins and other digital currencies. Additionally, key market players including Nubank are embedding crypto payments functionalities into their offerings, further accelerating merchant adoption across the region.

In many markets, companies are working hard to expand their offerings. Networks such as Visa have integrated ‘crypto’ credential cards and co-brands that support stablecoin. PayPal has expanded its PYUSD stablecoin with a 3.7% yield offering and built out its crypto trading functionality. Major e-commerce platforms including Shopify and WooCommerce have developed plug-ins for seamless crypto payments, and financial technology leaders such as Stripe are positioning themselves in infrastructure through strategic acquisitions. Additionally, major crypto exchanges are getting involved. Coinbase, for example, has launched several merchant acceptance solutions in partnership with companies including Primer.

Stablecoin acceptance offers advantages to merchants including significantly lower acceptance costs when transactions remain on-chain, often reducing merchant fees to as low as 1%. Merchants involved in cross-border e-commerce particularly benefit from instant settlement, removing the prolonged delays typical of traditional payment methods. For example, Worldpay partnered with Fireblocks for blockchain-based payments, achieving 50% faster payment processing.

Despite these upsides, stablecoin merchant acceptance still faces significant challenges. These include high total transaction costs when merchants convert stablecoins directly to fiat currencies, uncertainty around merchants holding funds in stablecoins, the need to define new chargeback rules (the immutable nature of blockchain transactions doesn't allow for transaction reversals), and limited perceived benefits for end users unless they reside in regions with significant currency instability. In particular, enterprise merchants are a critical segment to drive adoption and unlock network effects in stablecoin acceptance, but they already benefit from volume discounting in merchant discount rates (MDRs) and revenue sharing from banks, acquirers, and card networks. We believe that cards are currently advantaged in merchant acceptance compared with stablecoins. They are deeply embedded in the commerce ecosystem, accepted at millions of merchants, and offer additional benefits such as chargeback and fraud protection, as well as cashback rewards. Beyond cards, alternative payments methods (APMs) including RTPs remain competitive on cost and settlement speed.

Do Geopolitical and Regulatory Drivers Support Mass Adoption?

Turning to regulatory and macroeconomic drivers of mass adoption, the Trump administration and recent events have created significant momentum and favorable market conditions. We have identified four catalysts:

- 1. The Trump effect on regulatory clarity:** With the second Trump administration, the US is on the cusp of a regulatory U-turn. As a signal of intent, one of the President's first Executive Orders was to discontinue exploration of a US Central Bank Digital Currency (CBDC), or 'digital dollar'. In rapid succession, Staff Accounting Bulletin 21 (SAB 121) on crypto asset safeguarding was repealed, and regulatory clarity for crypto and stablecoin legislation was made a priority. Two draft acts are now making their way through the US system: (1) The STABLE Act proposal defines a 'payment stablecoin' and clarifies that it should not be treated as a security, easing the regulatory burden. It also mandates clear requirements for issuers, including full one-to-one reserve backing with cash and HQLA, and with regulatory oversight defined by type of issuer. (2) The GENIUS Act, a Senate proposal, defines the term Payment Stablecoin Issuer (PSI) with reference to underlying fiat collateral value, sets out a broad range of eligible reserves, and determines regulatory oversight by market cap boundary (less than \$10 billion under state oversight only). Meanwhile, Europe's MiCA framework has been phased in since June 2023, with stablecoins increasingly integrated into national regulatory regimes. The net impact will be a legitimized playing field that invites institutional participation and removes the potential for regulatory arbitrage on collateral reserves.
- 2. The Trump effect on geopolitics:** Amid an uncertain trade war and protectionist policies, the dollar has recently come under pressure. The EU, where two-thirds of payments volume is processed through US companies, is increasingly focused on payments sovereignty through the Euro. Paradoxically stablecoins, for which a key demand driver is US dollar exposure, may also be seen increasingly as a new battleground to combat the dominance of the US dollar and US-centric payments infrastructure including card networks and even SWIFT. Non-US dollar stablecoins have less than a 1% market share, but moves in non-US states are under way to accelerate development of stablecoins issued in competing currencies and protect sovereignty from USD stablecoins. Societe Generale Forge, for example, has issued a euro-pegged stablecoin. In addition, non-US countries are pursuing other paths such as central bank digital currencies (CBDCs) and tokenized deposits.

3. **Real world demand:** In high-inflation environments, stablecoins are not just speculative tools; they are lifelines. Indeed, over 40% of stablecoin users in emerging economies rely on them for daily transactions such as retail and bill payments.²⁴ In the 12 months to March 2024, stablecoin purchases in Turkey, for example, amounted to \$38 billion (4.3% of the country's GDP), which was the highest transaction volume globally.²⁵ Stablecoins are also starting to penetrate core payments and fintech cross-border use cases. For example, Bridge started life serving cross-border remittance corridors such as US-LATAM. In cross-border treasury, Bridge counts SpaceX as a client, supporting treasury and cash management across its global entities. And in the fintech universe, Bridge has pioneered stablecoins as a USD-native banking-as-service infrastructure layer to power non-US tech startups seeking exposure to US dollars. The company also offers virtual accounts, virtual cards, and stablecoin payments aimed at non-US fintechs, which are poorly served outside the US and Africa, creating frictionless and borderless neobanks to serve local needs.²⁶

In crypto-heavy markets such as Dubai, we are seeing increased penetration of stablecoins as a payment method online and at point of sale, supported by Visa and Mastercard rails and on/off ramping. In 2024, stablecoin transaction volume in Dubai amounted to about \$19 billion, with transactions for less than \$10,000 representing 6% of total dollar transaction value but 93% of transaction numbers.²⁷

Finally, on-chain demand for yield-generating assets is growing, reflecting rising cryptocurrency and stablecoin market caps. Moreover, the tokenized flywheel is now in motion. As outlined in BCG's recent tokenized funds paper, tokenized real-world assets (RWA) including money market funds have a combined \$22 billion market cap, having tripled in value over two years. Meanwhile DeFi has doubled to a \$100 billion market cap over two years, with settlement through stablecoins.

4. **Business model profitability:** With rate normalization now established following a long period of low borrowing costs, stablecoin issuers are proving that the business model is profitable and more productive than conventional banking models. Driven primarily by interest earned on HQLA, and supplemented by transaction fees for minting and burning, Tether reported an operating profit of about \$54 billion in 2024, with an estimated workforce of only about 100 FTEs—an astonishing \$535 million of revenue per employee. Circle posted revenues of about \$1.7 billion with about 900 staff, equating to about \$1.9 million per employee. These returns dwarf those of most traditional financial institutions and banks have not been slow to take notice. Societe General has issued euro-backed stablecoin through Forge, while Standard Chartered is actively pursuing projects and Bank of America has hinted at a future play. Potential roles include commercial banking partner and custodian to stablecoin issuers.

24. Brevan Howard Digital survey.

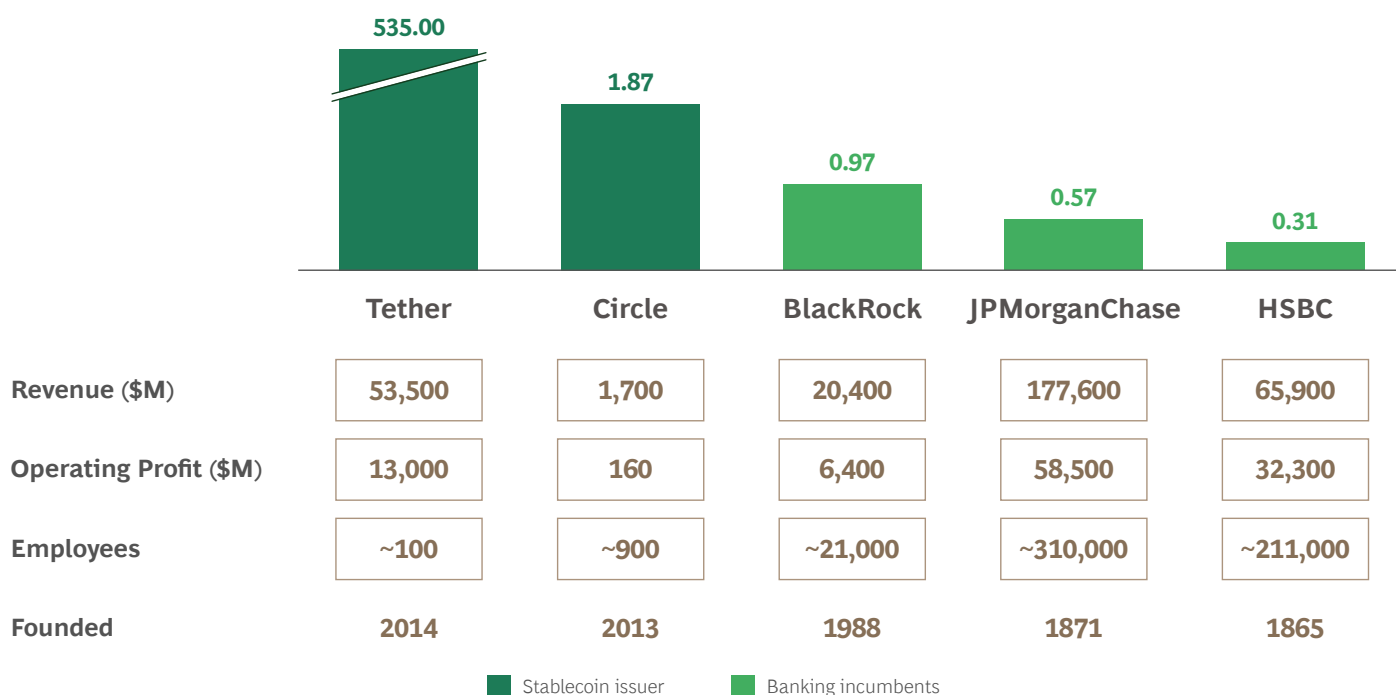
25. Chainalysis, 'The 2024 Crypto Spring Report', April 2024.

26. Bridge.xyz.

27. FinanceWorld.

Exhibit 5 - Stablecoin issuers are delivering remarkable revenue per employee vs banking incumbents

Revenue per employee (\$M, 2024)



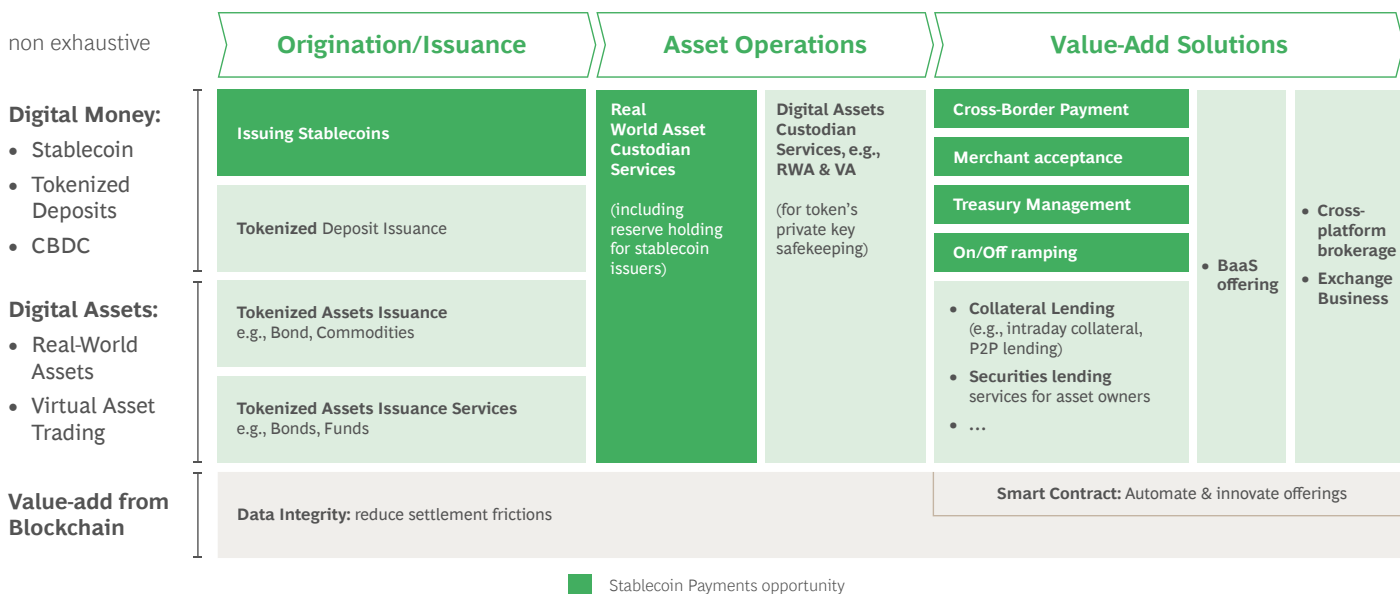
Are Companies Across the Value Chain Building Viable Business Models?

The recent performance of companies in the sector suggests stablecoins present substantial revenue opportunities across several business models, each uniquely positioned to capture individual value streams in the digital asset ecosystem. Traditional players have also started to exploit the stablecoin opportunity:

- **Issuing Stablecoins**

Stablecoin issuance has become a lucrative winner-takes-all business model, notably demonstrated by Tether and Circle. These companies generate significant revenues from interest on reserve assets and commission fees from stablecoin minting and burning, albeit that returns have been propped up by higher interest rates. Circle, which is sharing reserve income aggressively for distribution with Coinbase and Binance, has in fact only returned \$156 million in net income on a revenue base of \$1.7 billion – a margin of less than 10%. We believe that the CPN is Circle's compelling strategic response to create a sustainable, more diversified business model. Still, the issuance business model is challenging. The concentration of top stablecoin issuers (Tether and Circle account for about 90% of market cap) shows the strength of network effects and the importance of first-mover advantage. Unique capabilities are also required in terms of blockchain infrastructure, wallets, and digital custody. Still, alternative entry routes are possible through white-labelling (e.g., PayPal's PYUSD with Paxos) and consortium approaches.

Exhibit 6 - Digital Money and Assets | Opportunities for Banks are emerging



Source: BCG analysis.

• Banking for Stablecoin Issuers and Reserve Holding

Not all companies should become stablecoin issuers. Perhaps counterintuitively, we believe most banks will be best served by prioritizing tokenized deposits over stablecoins, given their potential for superior capital productivity. Instead, commercial banks and custodians exploring the stablecoin space should first focus on their proposition on banking for stablecoin issuers. Given their traditional role in reserve management, holding stablecoin reserves is a natural economic opportunity. Stablecoin issuers also require a broad range of banking services. These include brokerage, asset management and repo for reserve assets, custody of cash and HQLA, treasury and FX solutions for cross-border payments, and last mile off-ramping. Standard Chartered (through Zodia Custody), BNY Mellon (cash custodian) and Blackrock (manages the Circle MMF reserve) are already playing in the space. Banks could also consider providing an 'issuer reserve' bundle for stablecoin issuers, centered around custody of cash and HQLA reserves and supported by brokerage, repo, and asset management. This could be complemented with white-label or co-brand stablecoin-to-fiat debit cards as off-ramp solutions, offered through partnerships with card networks. However, banks must also carefully manage potential impacts on deposit outflows for customers moving into stablecoins, and liquidity ratios associated with reserve asset requirements. The emphasis should be on prudent internal treasury and capital management, risk management, and regulatory compliance.

• Merchant Acceptance

Merchant acceptance solutions represent a nascent but developing use case. Acquirers and PSPs such as Worldpay and Nuvei already offer payouts to merchants in stablecoins, which can be a distinguishing value-add service to overcome delays caused by weekends and batch cut-offs. Through Bridge, Stripe is positioning stablecoins at the forefront of an internet-native, borderless payment acceptance infrastructure (e.g., Stripe recently announced the launch of stablecoin accounts). PayPal is similarly positioning through PYUSD, though we believe this could also act as a constraining factor by betting on a 'coin' over 'infrastructure'. Crypto exchanges including Coinbase (partnering with Primer) and Binance are advancing their merchant acceptance capabilities, making it simpler for businesses globally to integrate stablecoins and cryptocurrencies into their payments systems.

- **Cross-Border Payments and Treasury Solutions**

Banks and PSPs can leverage stablecoins to create operational efficiencies in cross-border payments and international treasury management. But consortiums such as CPN challenge the dominance of correspondent banking around the world. In the retail business, companies such as Bitso claimed to have processed transactions exceeding \$12 billion and facilitated over 10% of total remittances between the US and Mexico, while MoneyGram has partnered with stablecoin infrastructure providers to enable seamless on and off-ramping across its global outlets.

- **On and Off-Ramping**

Banks and payment networks can play a pivotal role in bridging the gap between digital stablecoins and traditional fiat currency systems, which is a critical driver of broader stablecoin adoption. Leading card networks, including Visa and Mastercard, already offer integrated solutions that seamlessly enable card-based stablecoin payments, treating cryptocurrencies similarly to foreign currency transactions. This embedded functionality reduces friction and enhances consumer and merchant adoption.

Can Stablecoins Coexist With CBDC and Tokenized Deposits (TDs)?

Our final test tackles a priority concern for regulators, central banks, and the private sector. That is whether stablecoins can viably coexist with central bank digital currencies (CBDCs) and tokenized deposits in a blockchain-enhanced monetary ecosystem. In our view, it is a key objective of policy and design to ensure these forms of money are complementary. With the right technical properties, risk mitigants, and regulatory frameworks, there may even be an argument that they will all become necessary. Each format offers unique attributes that can together reinforce national financial stability, capital efficiency, and innovation. Much like their analogous counterparts in today's monetary model—central bank banknotes, commercial bank deposits, and non-bank e-money—a tripartite architecture of CBDCs, tokenized deposits, and stablecoins could similarly serve as the backbone of the digital economy.

CBDCs, as direct liabilities of central banks, uniquely provide a form of money that is free of credit risk and central to wholesale applications where settlement finality and the elimination of counterparty risk are paramount. Acting as the monetary anchor, CBDCs also ensure that other monetary formats—whether issued by commercial banks or non-bank electronic money institutes (EMIs)—remain convertible at par to sovereign currency. This role is fundamental to maintaining financial stability, especially in a future where multiple formats of money (e.g., we believe there will remain a baseline demand for banknotes even in mature 'zero-cash' economies) flow across programmable, interoperable networks with increasing velocity and complexity.

Tokenized deposits in our view are simply a change of database used to record the issuing and transacting of commercial bank money, enabling banks to benefit from blockchain technology without disrupting their critical role in credit intermediation. These instruments allow banks to maintain their core function—lending into the economy—while obtaining the benefits of programmable money, such as near real-time settlement and smart contract-empowered products such as instant collateral management. Importantly, tokenized deposits operate within existing prudential frameworks, including capital and liquidity requirements, offering a more capital-efficient alternative to fully collateralized instruments. This makes them not just a technical upgrade, but a systemically necessary format for ensuring credit flows are preserved in a digital financial system.

Stablecoins, meanwhile, have emerged as an innovation vector, enabling blockchain users to access a reliable means of exchange and non-banks to issue digital currency at scale. As we have shown, they can spur competitive pressure to drive product and service improvements across financial services and payments ecosystems. Accordingly, stablecoins remain the most mature blockchain-based money format in terms of adoption and regulatory engagement. We note that their backing offers stability but also introduces systemic risks. Disclosures from major issuers such as Tether, Circle, and PayPal indicate they collectively hold over \$120 billion in US Treasuries, positioning them among the largest holders of US government debt. In the event of a loss of confidence in a major stablecoin, rapid redemptions could lead to a fire sale of these assets, creating volatility in sovereign bond markets and amplifying liquidity pressures—especially during periods of macroeconomic stress.

Beyond liquidity and concentration risks, the proliferation of USD-denominated stablecoins also pose a macro-financial challenge: the risk of dollarization in emerging markets confronting local currency instability. The widespread availability of dollar-based stablecoins—accessible via mobile devices and blockchain networks—can erode demand for local currencies in countries with less credible monetary policy or higher inflation. This could undermine the transmission of domestic monetary policy, weaken central bank balance sheets, and exacerbate capital outflows during periods of financial distress. While this would strengthen the role of the US dollar as a global reserve currency, it also risks exporting US monetary policy to jurisdictions that have limited capacity to absorb its shocks. The result would be accelerating financial disintermediation and diminished local currency instruments. As stablecoin adoption expands, especially in regions lacking strong payment infrastructure or capital controls, this risk becomes increasingly tangible for policymakers.

In addition, stablecoins inherently challenge the principle of the “singleness of money,” where all monetary instruments denominated in the same currency settle seamlessly and interchangeably at par. Due to their design, stablecoins such as USDC and USDT differ in value and fungibility, primarily because their worth depends directly on the quality and liquidity of the underlying reserve assets. This results in potential depreciation risks, especially noticeable in large-volume conversions. Moreover, confidence in stablecoins relies entirely on the issuer’s balance sheet and transparency, rather than the explicit backing of central bank reserves, heightening vulnerability to liquidity crises or runs, as underscored by studies by the Bank for International Settlements (BIS). Another fundamental challenge arises from the absence of institutional backing for customer deposits—if a stablecoin issuer fails, customer holdings are not necessarily protected or easily recoverable, despite the presence of liquid reserve assets like T-bills. Finally, stablecoins introduce new compliance complexities, with current onboarding processes often lacking robust KYC standards, enabling potential misuse and eliciting regulatory scepticism. Collectively, these design and structural characteristics amplify operational, regulatory, and systemic risks associated.

The risks underscore the importance of a coordinated regulatory framework that defines clear boundaries, ensures full transparency of reserves, and imposes strong liquidity risk management. Just as importantly, interoperability and convertibility mechanisms must be embedded across CBDCs, tokenized deposits, and stablecoins to maintain user confidence and systemic resilience. If this infrastructure is thoughtfully designed, the three formats can and should complement rather than compete with one another.

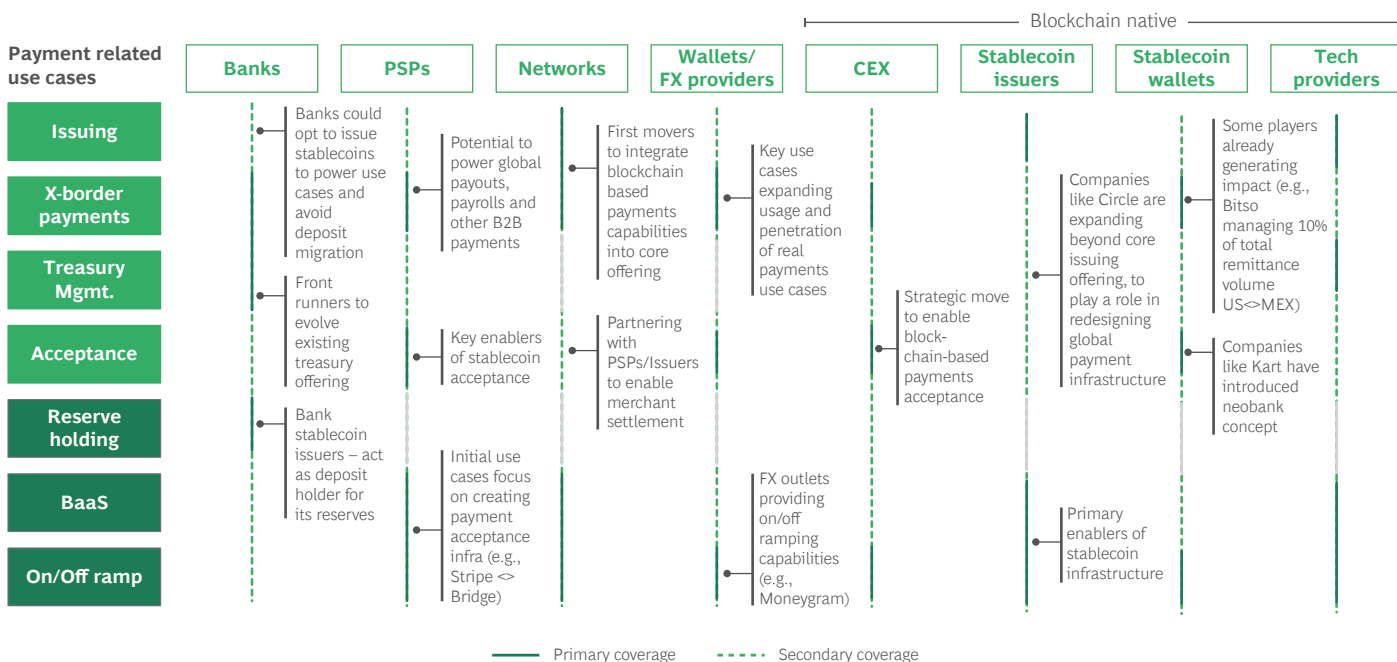
We believe the future of money will not be shaped by the dominance of a single instrument, but by the stability and utility created through their co-existence—each playing a distinct, interdependent role in a modern, programmable, and resilient monetary system. And stablecoins are well positioned to be the beating heart.

Implications for Ecosystem Participants

The starting gun has sounded, and while some of the fundamental or infrastructure issues relating to stablecoins are not yet solved, adoption will continue to row. This gives banks and PSPs a narrow window: enough to build the operating and risk rails they still lack but with the certainty that the competitive field will harden quickly. Institutions that use this moment to articulate a stablecoin roadmap—deciding where to play (issuance, custody, on-ramp, FX, network orchestration) and how to partner with the central bank on reserve anchoring—will ride the next payments wave rather than chase it. Those that wait for every technical kink to be ironed out will discover that relevance, not technology, was the real race they lost.

Banks can opt for a twin approach. On the one hand, they can position as a partner for stablecoin issuers, offering services built around reserve custody (e.g., issuer reserves bundles) and cross-selling products such as off-chain FX solutions. On the other hand, there is a chance to develop use cases that bring incremental value to existing core businesses, with a primary focus on cross border payments and treasury management services. In short, banks are uniquely positioned to integrate stablecoins into their offerings to power more robust, fast and transparent services that would ultimately strengthen ties with customers and expand loan-to-value ratios. However, banks also need to decide which digital assets better fit their strategies – stablecoins or tokenized deposits, the less mature option which may however be more capital efficient in the long term.

Exhibit 7 - Different coverage options depending on the nature of the player



Payment Service Providers (PSPs) occupy a pivotal position in the payments ecosystem and their strategic choices today will determine their relevance in the payments landscape of tomorrow. Two clear archetypes have emerged: the orchestrator, actively bridging the traditional financial infrastructure with digital rails, as demonstrated by Stripe's acquisition of Bridge to embed crypto acceptance into its existing merchant network; and the issuer, directly launching stablecoins to foster a self-reinforcing flywheel between consumer wallets and merchant acceptance, exemplified by PayPal's launch of PYUSD. Both strategies underscore a critical reality: PSPs must proactively define their roles, whether as infrastructure orchestrators that enable frictionless integration between physical and digital worlds or as issuers driving adoption and usage through their own branded digital currencies.

Stablecoin issuers are entering a transformative phase, shifting from standalone entities primarily reliant on reserve-driven revenues to fully integrated financial infrastructure leaders. Facing growing competition and market maturity, issuers are likely to pursue one of two strategic paths. As a first option, they could evolve into essential infrastructure providers, powering the digital asset and payments rails necessary for traditional financial institutions and PSPs to integrate stablecoin functionalities. Alternatively, issuers may pivot into banking, lending, and other regulated financial activities. This strategic crossroads underscores the critical role issuers will continue to play in shaping the financial services ecosystem.

Other market participants face a similar strategic crossroads as they seek to define their roles. Regardless of the specific pathway they select, it will be essential for them to start from a clear view of their desired end state, carefully considering how they will deliver the scale, reliability, and operational performance demanded by high-volume, real-time production environments. Equally important will be to embed continuous innovation and adaptability into their strategies, recognizing that the digital and blockchain landscapes will change, amid new protocols, regulatory expectations, market demands, and customer preferences. Firms that successfully anticipate and embrace these dynamics will position themselves not only to participate but to lead.

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