Centre for International
Governance Innovation

CIGI Paper No. 331 — August 2025

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Christian Catalini is the founder of the Massachusetts Institute of Technology (MIT) Cryptoeconomics Lab and a research scientist at MIT. He is also a co-founder and chief strategy officer of Lightspark. Previously, he was a co-creator of Diem (formerly Libra), chief economist of the Diem Association and head economist of Meta FinTech. Christian is an advisor to Coinbase, Algorand and Delphia, and independent board member at Hivemind Capital. Since 2013, Christian has also been a member of the US Commodity Futures Trading Commission's Technology Advisory Committee. His academic research at MIT focuses on blockchain technology and cryptocurrencies, and he previously worked on the economics of equity crowdfunding and start-up growth, as well as the economics of scientific collaboration. He holds a Ph.D. from the University of Toronto (Rotman School of Management), and M.Sc. (summa cum laude) in economics and management of new technologies from Bocconi University, Milan, Italy. In 2018, Christian was appointed as a Faculty Research Fellow in the Productivity, Innovation and Entrepreneurship Program at the National Bureau of Economic Research.

Acronyms and Abbreviations

AI	artificial intelligence
AML	anti-money laundering
API	applied programming interface
BRICS+	Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia, Iran and the United Arab Emirates
CBDCs	central bank digital currencies
CFT	countering the financing of terrorism
DeFi	decentralized finance
fintech	financial technology
G7	Group of Seven
IOU	I owe you
REITs	real-estate investment trusts
RWAs	real-world assets
SWIFT	Society for Worldwide Interbank Financial Telecommunication

Executive Summary

Stablecoins are transforming from niche crypto instruments to critical programmable infrastructure, with profound implications for global finance and business strategy. By enabling instantaneous, low-cost settlement, they bridge disparate domestic payment systems, dismantle inefficiencies in entrenched card networks and legacy rails, and unlock decentralized finance (DeFi) applications. This analysis delineates the core stablecoin archetypes — fully reserved variants, deposit tokens, tokenized money-market funds and algorithmic constructs — assessing their trade-offs in reserve robustness, consumer protection, regulatory compliance and long-term business viability. The paper then charts five geopolitical pathways, ranging from a lightly upgraded Bretton Woods order to fragmented multipolar or more chaotic monetary regimes, unpacking how these trajectories could propel or impede stablecoin adoption. Notably, well-regulated, fully reserved stablecoins, bolstered by a robust public-private partnership, position themselves as agile, bottom-up alternatives to central bank digital currencies (CBDCs), which often struggle with protracted technical and deployment challenges. Bitcoin's ascendance in a changing world order also merits attention, serving as an impartial inter-bloc conduit in a multipolar context, a safeguard against authoritarian controls in cases of extreme institutional turbulence and potentially a neutral reserve asset during existential disruptions. Ultimately, the rapid feedback loops and user-driven iteration of private-sector initiatives and permissionless networks position them to capture critical network effects well before slower, top-down CBDC programs can take hold and interoperate smoothly across countries.

Introduction

Stablecoins are digital assets engineered to hold a consistent value, typically pegged to a fiat currency, such as the US dollar or euro, or a basket of assets. They were developed to counter the volatility of cryptocurrencies such as bitcoin and Ether, initially providing traders with a bridge between crypto and fiat currencies, especially when exchanges had limited integration with traditional payment systems. Stablecoins have evolved far beyond trading tools, becoming pivotal in DeFi ecosystems. They now anchor diverse financial instruments, including lending platforms, yield-generating protocols and derivatives. Additionally, stablecoins are increasingly used for traditional financial services such as cross-border payments and international settlements, addressing inefficiencies in legacy systems. In markets characterized by currency volatility or instability, they offer a practical way to access US dollars or other harder currencies. Interest in stablecoins accelerated significantly following Stripe's 2024 acquisition of Bridge, a stablecoin-focused start-up, highlighting the growing interest in stablecoins as tools for global payment orchestration (Catalini 2024). This acquisition has led financial institutions — as well as financial technology (fintech), retail and digital platforms[1] — to consider using stablecoins to connect disconnected national payment systems, which historically relied on legacy rails such as the Society for Worldwide Interbank Financial Telecommunication (SWIFT) or closed-loop services from providers such as Wise or Western Union to interoperate. These legacy systems often involve complex messaging protocols, intermediaries and reconciliation processes, leading to delays and higher costs. By enabling instant settlement, stablecoins reduce transaction costs, streamline operations and contribute to global financial inclusion. In 2019, Facebook's Libra announcement sparked intense regulatory scrutiny, highlighting stablecoins' vast potential and inherent risks. Regulators still navigate a delicate balance, recognizing stablecoins' capacity to drive competition, innovation and consumer choice in payments, yet wary of challenges to monetary sovereignty and traditional banking frameworks. Nonetheless, major economies, including the United States, are warming to stablecoins, in some cases seeing them as a stronger alternative to CBDCs, which face steeper implementation and technical hurdles compared to the public-private partnerships behind stablecoin issuance. Overall, stablecoins have clearly evolved from niche digital assets to essential infrastructure, powering a more seamless and efficient global financial system. Their ultimate role, however, will track

1 See Heeb, Andriotis and Dawsey (2025) and Schwartz and Weiss (2025).

the fate of the Bretton Woods system: if the dollar-centric order endures, dollar-pegged stablecoins could become the neutral settlement layer of global commerce. If a multipolar reserve regime or CBDC-dominated architecture emerges instead, stablecoins may be relegated to specific, high-value use cases rather than occupying the monetary core. This paper is structured as follows: the section titled "Different Types of Stablecoins" briefly examines the various asset types competing in the stablecoin arena, noting their distinct business and regulatory trade-offs, yet highlighting their suitability for diverse use cases, likely driving specialization over the next decade. "Stablecoin Design: The Key Dimensions" outlines key design dimensions for robust stablecoin frameworks. The next section, "What Problems Can Stablecoins Solve?", explores challenges that well-designed stablecoins could address. "Core Scenarios for a Future Global Order" analyzes stablecoins' interplay with different geopolitical scenarios, followed by a conclusion

Different Types of Stablecoins

This section briefly outlines the product types likely to compete in the stablecoin space in the coming years, beginning with the most successful category to date: fiat-backed stablecoins, with their safest implementation resembling a narrow-bank structure. Next, deposit tokens issued by banks are explored, followed by tokenized money market funds (which are securities) and finally, the most experimental categories (algorithmic stablecoins and hybrid models).

Fully Reserved Stablecoins

Fiat-backed stablecoins such as USDT and USDC must address a key challenge: ensuring on-demand redeemability for cash, akin to commercial bank deposits. As stablecoin issuers are not yet regulated as banks, this requires one-to-one backing with high-quality liquid assets. For US dollar stablecoins, the optimal reserve, as proposed for US dollar-based Libra (now Diem), consists of US treasuries with 90-day or shorter maturities, minimal cash, and repos for immediate liquidity to support minting and burning.[2] Issuers must also maintain a capital buffer of additional assets to mitigate credit, market and operational risks.

This approach positions issuers as narrow banks — institutions that take deposits but park them only in ultra-safe, short-duration assets such as central bank reserves or treasury bills, avoiding the classic "borrow short, lend long" maturity transformation that characterizes conventional banking. The issuer therefore carries minimal interest-rate or credit risk, even if the broader stablecoin ecosystem later reintroduces those risks through derivative tokens, rehypothecation or on-chain lending protocols. When fully backed in this way, stablecoins function as digital bearer instruments: whoever controls the private keys controls the money, although issuance, redemption and reserve management all remain subject to the constraints of the relevant regulatory regime.

Fully reserved stablecoins, due to their capital-intensive one-to-one backing, are costly to issue and maintain. Consequently, issuers must promote high-velocity, high-value use cases, such as payments, to drive ecosystem adoption. This approach poses a further challenge: issuers have traditionally relied on interest from reserves to fund operations, but this model falters in low-interest-rate environments or amid intense stablecoin competition (Catalini and Wu 2024). As regulatory clarity is reached across jurisdictions, there will be significant entry by new issuers — including traditional financial institutions, fintechs and even retailers and platforms. Through entry, stablecoin issuers will be pushed to share more of the yield on the underlying assets with key distribution partners and eventually even consumers, which dries up the revenues from the reserve.

One might argue that if issuers of stablecoins cannot capture value through the reserve — in other words, the stock of coins — they should naturally turn to transaction fees, or the flow of coins, as an alternative revenue stream. However, the reality is far more nuanced and challenging. Enforcing fees at the blockchain level is not always feasible due to the open and decentralized nature of these systems. Issuers face the constant risk of disintermediation, as users and developers can bypass fees through off-chain solutions. This

2 See www.diem.com/en-us/economics-and-the-reserve/#the-libra-reserve-and-protections.

dynamic fundamentally complicates the ability of issuers to monetize the flows they facilitate.

Fully reserved stablecoins are unlikely to be sustainable as stand-alone ventures. The operational costs of maintaining reserves, ensuring regulatory compliance and managing infrastructure are significant, while opportunities for direct value capture remain limited. Consequently, the issuance of fully reserved stablecoins is likely to be led by fintechs and financial institutions with complementary business models. These entities can strategically position stablecoins as a cornerstone of a more open platform strategy, leveraging them to expand the reach of their existing products and services.

For instance, a fintech with a robust payments business could integrate a stablecoin to lower transaction costs, enhance cross-border efficiency or enable seamless interoperability with DeFi ecosystems. By doing so, it not only expands its user base but also creates new touchpoints for monetization through adjacent services — such as lending, staking or premium features — without relying solely on transaction fees. Similarly, traditional financial institutions could leverage stablecoins to modernize their infrastructure, offering clients a bridge between legacy systems and blockchain-based applications.

This strategic interplay between stablecoins and broader platform dynamics underscores a critical insight: the value of a stablecoin lies not in the coin itself but in the ecosystem it enables. Issuers that focus narrowly on monetizing the coin through fees or reserves risk being outmanoeuvred in a landscape defined by openness, competition and a fierce battle for distribution — both on the consumer and on the institutional side.

Deposit Tokens

Unlike fully reserved stablecoins, which are backed one-to-one by high-quality liquid assets, deposit tokens such as JPMorgan's JPMD token[3] mirror commercial bank deposits, relying on a fractional reserve model. Issuers engage in maturity transformation — lending deposited funds for longer-term obligations while maintaining liquidity — and generate returns through interest-rate spreads. This approach allows deposit tokens to inherit consumer protections, such as deposit insurance, providing users with familiar security in a blockchain context.

By combining blockchain's efficiency with traditional banking's stability, deposit tokens enable banks to offer low-cost, instant transfers. Banks, with their scale, distribution and established trust, are well positioned to deliver these services to consumers and businesses. However, achieving interoperability among deposit tokens is non-trivial, requiring technical and regulatory advancements to match the seamless functionality of bearer instruments such as fully reserved stablecoins. Additionally, compliance poses challenges, as banks must develop robust tools to monitor tokenized transactions, ensuring safe interactions with other entities.

It remains uncertain whether deposit tokens can effectively compete with fully reserved stablecoins for use cases requiring interoperability across financial institutions. They may also provide little additional value and functionality beyond existing deposits. As a result, banks may find it simpler to maintain traditional deposits for customers while supporting fully reserved assets to facilitate stronger cross-institutional compatibility.

Tokenized Money Market Funds

Although tokenized money market funds and US Treasuries (such as BlackRock's BUIDL) or similar instruments are not stablecoins in the conventional sense, they compete with them, particularly in institutional use cases where the distinction between cash-like instruments and securities is less significant for usability.

The core advantage of these tokenized, yield-generating assets is their ability to deliver greater value to users through embedded returns, such as interest or yield, making their economics more compelling than fully reserved stablecoins. These instruments are best suited for scenarios where store of value and yield generation are priorities, appealing to sophisticated institutional players. For example, tokenized Treasuries can offer stable, yield-bearing alternatives to stablecoins in DeFi or institutional custody solutions. However, as securities, they face stricter regulatory requirements that introduce operational friction compared to the simplicity of fully reserved stablecoins.

3 See Irrera and Kharif (2025).

Algorithmic Stablecoins

Algorithmic stablecoins grapple with an inherently complex challenge: they rely on on-chain mechanisms to peg their value to an off-chain asset, such as the US dollar, whose price is determined by external market dynamics. Without tokenized real-world assets (RWAs) — such as tokenized Treasuries or bonds — to serve as high-quality collateral, these stablecoins face a dilemma[4] between two bad options: become capital intensive and inefficient by demanding heavy overcollateralization — roughly $150–$200[5] in assets locked up for every $100 of stablecoins — to absorb price shocks and defend the peg in stressed market conditions; or operate with lighter backing and accept a depeg risk that can quickly snowball into a full collapse. The Terra (LUNA) crash in May 2022 starkly illustrated this vulnerability.[6] While overcollateralized designs (such as DAI) are safer, they also tie up significant capital, reducing their scalability and appeal, whereas undercollateralized models risk death spirals when market confidence erodes.

This fragility renders algorithmic stablecoins highly risky for holders today, limiting their viability to niche-use cases where users are willing to accept a higher risk for enhanced decentralization. Ironically, many existing algorithmic stablecoins rely on fiat-backed stablecoins within their reserves, underscoring the critical need for a robust link between the tracked asset and its on-chain representation. This dependency highlights a fundamental tension: the pursuit of decentralization currently compromises the stability that users expect from a stablecoin to begin with.

The emergence of tokenized RWAs — such as real-estate investment trusts (REITs), money market funds or Treasuries — offers a path toward more resilient algorithmic stablecoin designs. By leveraging high-quality, yield-bearing collateral, future designs could reduce capital intensity while enhancing stability. For instance, a stablecoin backed by tokenized Treasuries could dynamically adjust its supply using on-chain oracles, maintaining its peg with lower overcollateralization ratios. However, even these improved models will likely remain susceptible to extreme market shocks or adversarial attacks. Regulatory scrutiny further complicates adoption, as tokenized RWAs must comply with securities laws, introducing friction absent in fiat-backed stablecoins.

Ultimately, the evolution of algorithmic stablecoins hinges on a stronger bridging of the on-chain and off-chain worlds through safe, tokenized assets. While they hold promise for DeFi, their success will depend on balancing capital efficiency, stability and regulatory compliance. Until then, they remain a high-risk proposition, best suited for users prioritizing decentralization over stability.

Additional Designs

The four categories above dominate today's digital assets market, yet the design space is far from settled. As tokenization widens the investable universe, issuers will test hybrid collateral structures that mix short-dated Treasuries with tokenized gold, REIT shares, investment-grade credit, commodity baskets or dynamically rebalanced portfolios. These blends may target specific needs — say, an inflation-hedged savings coin that combines Treasuries and tokenized gold.

Whatever mix emerges and gains traction, the fundamental test remains the same: how faithfully the reserve tracks the unit of account and whether the issuer holds enough high-quality liquid assets — and capital buffers sized to that mix's volatility and correlations — to meet redemptions under stress. A design that excels on yield but stumbles on liquidity or solvency merely repackages old risks in new technology. Future stablecoins will therefore rise or fall on transparent reserve reporting, prudent risk management, and credible governance and legal guarantees, even as innovators push the frontier of what can serve as collateral.

4 See Catalini and de Gortari (2021).

5 All dollar figures in US dollars unless otherwise noted.

6 The system used LUNA tokens as an equity-like backstop for the TerraUSD (UST) stablecoin, allowing users to always exchange one UST for $1 worth of LUNA tokens. This mechanism worked when LUNA's market cap exceeded UST's supply, but when massive UST redemptions began, the protocol minted exponentially more LUNA to honour the $1 peg, diluting LUNA holders and crashing its price. As LUNA's value plummeted, it could no longer credibly back UST, creating a death spiral – UST holders rushed to redeem, further flooding the market with newly minted LUNA, until both tokens became essentially worthless and the $60 billion ecosystem collapsed within days.

Stablecoin Design: The Key Dimensions

Reserve Integrity

At the heart of any credible stablecoin architecture lies the integrity of its reserves. A stablecoin that promises stability must deliver robust assurances that the reference value remains fully redeemable on demand. That objective is only as strong as the quality, liquidity and transparency of the assets that back it. For example, for a US dollar stablecoin, reliance on short-duration US Treasuries and overnight repos satisfy those criteria better than exotic credit or commercial paper. Robust, rules-based disclosure — through daily balance-sheet snapshots and independent attestations — shifts disclosure from marketing to verifiable economic guarantees. Beyond strict one-to-one backing, credible issuers should hold a separate capital buffer sized for credit, market and operational shocks — such as a software bug or hack of the mint and burn facility. This loss-absorbing cushion preserves full redemption even when unforeseen failures hit.

Consumer Protection

Sound reserves are necessary but not sufficient. The legal wrapper around them determines whether holders possess an enforceable claim or own merely a promissory digital "I owe you" (IOU). A best-in-class stablecoin embeds clear bankruptcy-remote structures — typically a trust or segregated custodial account — so that, if the issuer fails, the reserve cannot be swept into general creditor proceedings. Transparent terms of service must stipulate instant redemption rights and list dispute-resolution venues that do not rely on the issuer's goodwill. Together, these safeguards confer real "moneyness," turning the stablecoin into a genuine bearer instrument rather than a mere digital IOU.

Compliance

Finally, no stablecoin can scale globally without threading the needle between financial-crime safeguards and the open access that gives public networks their innovation and competition edge. The balancing act is less about reinventing know-your-customer controls than about re-architecting them for programmability and interoperability between providers. Portable, zero-knowledge credentials, address-based risk scoring and on-chain analytics will enable issuers to satisfy regulators' information demands while preserving end-user privacy. When implemented correctly, stablecoin payments can meet and exceed current standards: illicit flows are flagged and frozen in real time, while legitimate commerce gains a frictionless settlement medium that transcends domestic payment silos.

Taken together, rigorous reserve integrity, bankruptcy-remote consumer safeguards and novel compliance controls create a self-reinforcing triad. Each dimension bolsters the others, anchoring trust in both the monetary and legal foundations of a stablecoin. That trust, more than any technical feature, is what ultimately determines whether a stablecoin can mature from a cryptocurrency-trading instrument into a mainstream, systemically relevant piece of financial infrastructure.

What Problems Can Stablecoins Solve?

Connector between Domestic Real-Time Payment Systems

National instant-payment rails — such as FedNow in the United States, the Unified Payments Interface in India and Pix in Brazil — have driven domestic settlement to near-real time. The moment funds cross a border, however, they stall in a maze of correspondent banks, cut-off windows and opaque foreign exchange markups. A well-designed stablecoin offers a neutral 24/7 settlement asset that bridges those disconnected systems. Payment providers can either prefund stablecoin balances or acquire them on demand, then redeem them into the recipient's local fast-payment rail in seconds. In effect, the stablecoin supplies a shared, always-on ledger that collapses the latency and cost normally imposed by cross-border frictions.

Lower-Cost Rails and the Unbundling of Card Networks

Credit-card networks such as Visa and Mastercard handle three jobs — checking who you are (authentication), taming fraud and settling

payments later — but they do so with legacy architecture that makes every card swipe or tap costly. Each transaction involves interchange and other fees paid by the merchant's bank to the card holder's bank to fund risk coverage, float and card holder rewards, and that toll rolls straight down to the merchant. Stablecoins can give merchants "good funds" without the same costs: transfers finish in seconds and are final, and any needed refunds can be built into smart-contract escrow or managed by outside services. This turns today's many-layered card process into a simple two-party trade of digital cash. Merchants keep more of each sale, and payment processors have to compete on real value instead of hidden markups. It is no wonder the incumbents have moved from brushing the idea off to embracing it themselves — Visa's response[7] to the US GENIUS Act shows how hard it is to dismiss a cheaper, bearer-style digital dollar once it exists.

Programmability and DeFi-Enabled Use Cases

Stablecoins are best understood not as a cheaper wire transfer but as a programmable monetary primitive. Think of them less like digital cash and more like smart money that can follow instructions automatically. Because settlement is deterministic — meaning transactions always execute the same way under the same conditions — and smart contracts[8] are composable (they can be combined like building blocks), entire back-office workflows collapse into a few lines of code.

Complex business processes that traditionally require multiple intermediaries, manual approvals and days of processing can now be automated into simple, reliable code. Escrow services that hold funds until conditions are met, supplier financing that releases payments based on delivery milestones, revenue-sharing agreements that automatically distribute profits and even streaming payroll that pays employees by the minute — all of these can be invoked as modular functions by any application that speaks the protocol. It is like having a universal financial application programming interface (API) that any business can plug into.

In DeFi, liquidity pools redeploy idle balances as market-making capital, generating yields that offset user fees or reward network participants. Rather than letting money sit dormant in accounts, these systems automatically put unused funds to work — lending them out, facilitating trades between different currencies or providing liquidity for various financial activities, all while earning returns that can be passed back to users or used to subsidize transaction costs.

Traditional firms can ride the same rails: a logistics platform, for instance, can trigger payment automatically when an on-chain oracle — a service that brings real-world data onto the blockchain — confirms delivery, eliminating disputes and freeing working capital. No more waiting for invoices, manual verification or payment-processing delays. The money moves instantly when the conditions for a specific workflow are verifiably met.

The design space keeps expanding; stablecoins supply the monetary substrate for experiments we have yet to imagine, much the way the Hypertext Transfer Protocol became the scaffolding for a web that soon dwarfed its creators' early use cases. Just as the early internet pioneers could not have envisioned social media, streaming services or cloud computing, we are likely only scratching the surface of what becomes possible when money itself becomes programmable infrastructure.

Core Scenarios for the Future Global Order

Stablecoins live — or die — by the shape of the global monetary order around them. Their destiny could be a modest upgrade, a peripheral workaround or the backbone of a new system, depending on how geopolitics and regulation unfold. The five scenarios[9] that follow map those possibilities, stressing how design choices must adapt as the world tilts from reform to fragmentation, or even outright upheaval.

Reform of the Existing Global System

7 See Forestell (2025).

8 Smart contracts are deterministic programs stored on a blockchain. When a user transaction (or another contract) calls them, every node re-executes the same code and updates the ledger's state identically, letting the network enforce agreed-upon terms without traditional intermediaries or manual reconciliation.

9 These five scenarios are drawn from Samson et al. (2024).

The least disruptive trajectory preserves the Bretton Woods framework and layers on targeted upgrades. Led by the Group of Seven (G7), legislators in the largest economies codify reserve, capital and disclosure requirements for fully backed payment stablecoins. Once that legal clarity arrives, inertia favours the incumbents: banks tokenize deposits or issue their own stablecoins, card networks wrap merchant balances, and major fintechs and neobanks mint branded digital dollars and euros. The network still mirrors the old correspondent-banking web — dense, dollar-centric and knit together by redundant bilateral links — yet settlement now clears in seconds instead of days and programmability progressively automates workflows and financial services.

Interoperability mandates and real-time redemption rails stitch this mosaic of bank and fintech tokens into a single, more fluid liquidity pool. Merchant fees compress, yet most of the surplus flows to the institutions that already dominate distribution. For consumers and businesses, the change feels like a quiet software upgrade: tap, pay, settle. The clear winners are scale players with modern stacks — tech-forward banks, agile neobanks and crypto exchanges that pivot from trading venues to mainstream wallet and financial services providers.

Replacement of the Existing Global System

A more disruptive path envisions an enlarged BRICS+ bloc (consisting of Brazil, Russia, India, China and South Africa plus new members Egypt, Ethiopia, Indonesia, Iran and the United Arab Emirates) erecting its own monetary and settlement architecture. China's digital renminbi evolves from a domestic project into a full-stack alternative to SWIFT and the card networks, bundling messaging, foreign exchange conversion and instant clearing into a single API. Heavily subsidized rollouts across Africa, Asia and large swaths of Latin America turn the e-CNY ecosystem into the default channel for trade that bypasses the United States.

Top-down CBDC rails crowd out stablecoins by design. Compliance is baked into the core protocol, foreign exchange spreads are cross-subsidized and onboarding comes packaged with soft-power incentives — development loans, infrastructure grants and preferential market access. Against that backdrop, permissionless networks and stablecoins retreat to the margins. They survive in two niches: corridors the e-CNY has yet to reach, and communities that prioritize neutrality over state stewardship. Even there, liquidity thins as regulators in many countries steer banks, payment processors and crypto exchanges toward the sanctioned rail.

The result is a landscape where CBDCs set the standard for speed, cost and policy levers, while stablecoins serve as a parallel — but secondary — substrate for users seeking censorship resistance or dollar exposure outside the new sphere of influence.

Emergence of a Bloc-Based Global System

A genuinely multipolar equilibrium would partition the world into rival monetary-technology spheres. In the China-centric zone, a sovereign CBDC — and, over time, a mesh of interoperable CBDCs — runs end-to-end payments, from retail point-of-sale to wholesale interbank clearing. The US-EU bloc takes a hybrid approach: a CBDC in Europe for basic payments, and privately issued, fully backed stablecoins for retail transactions, DeFi experimentation and programmable commerce across all regions. Non-aligned economies leverage neutrality as a strategic asset; for them, bitcoin's politically agnostic settlement and deep global liquidity become a natural bridge across blocs.

Inside the Western sphere, stablecoins thrive. Open standards spark greater fintech and payment competition, composable smart contracts drive financial innovation at the application layer, and bank-grade rules on reserves and capital buffers keep systemic risk contained. On the other side of the geopolitical fault line, state digital money dominates day-to-day trade, yet bitcoin serves as an escape valve for capital and commerce that must cross political seams. The net result is a tiered monetary stack: CBDCs anchor domestic policy objectives; stablecoins power open innovation, large-scale digital platforms and AI agents; and bitcoin provides the neutral connective tissue binding the blocs together.

A Case of Disorder

In the darkest trajectory, multiple shocks converge — geopolitical conflict, resource nationalism and cascading sovereign-debt crises — tearing holes in the fabric of multilateral cooperation. Faced with acute capital-flight risk, governments prioritize domestic control over

global connectivity. Two policy instruments rise to the top of the autocrat's toolkit: CBDCs and stablecoin national champions.

Many states accelerate CBDC programs that embed real-time monitoring, granular wallet limits and programmable spending permissions. Domestic stability becomes synonymous with transactional visibility, and privacy is reframed as a national-security liability. Capital controls are enforced not only at the border but also at the wallet level, with automatic throttles on foreign remittances and instant blacklisting of politically sensitive addresses.

Where a full CBDC rollout proves technically or politically unwieldy, governments bless a handful of "domestic champions" — bank-affiliated or state-influenced stablecoin issuers — tasked with the same objectives. These tokens carry hardwired compliance modules and mandatory whitelisting, effectively merging private branding with public surveillance. The arrangement preserves the optics of market choice while funnelling transactional data straight to regulatory dashboards.

Under either model, cross-border interoperability is sacrificed. Correspondent-bank corridors wither, sanctions regimes fragment and liquidity pools become increasingly balkanized. Retail access to permissionless stablecoins is choked off at the fiat on- and off-ramps; liquidity splinters, spreads widen and counter-party risk climbs. The original promise of a borderless, low-friction stablecoin economy goes largely unrealized.

Precisely because bitcoin lacks a central issuer and is censorship resistant, it emerges as the hedge asset for those with the technical know-how to self-custody. Its role is narrower — store-of-value and flight-to-quality rather than everyday payment rail — but in a world of tightening controls, that neutrality comes with a premium.

This leads to a bifurcated digital-money landscape: CBDCs or state-aligned stablecoins dominate retail flows inside national borders, while a thinner, harder-to-police bitcoin market operates in the shadows as insurance against domestic policy overreach. Stablecoins that once promised frictionless global commerce are relegated to niche corridors or co-opted outright — their programmable potential redirected toward objectives (surveillance, capital containment, political compliance) that stand in stark contrast to the open financial networks envisioned at their inception.

Transformed Global Order

A systemic shock — a sudden climate tipping point or the emergence of general-purpose artificial intelligence (AI) — could force a wholesale rewrite of our economic plumbing. In that reset, programmability and instant finality shift from optional features to essential public infrastructure. Governments would have to disburse universal basic income or climate-relief transfers to billions of wallets in real time, complete with conditional logic and full audit trails. Coupled with interoperable digital-identity standards, fully backed stablecoins — or retail CBDCs modelled on their design — become the obvious settlement rail as AI agents enter the workforce.

In this setting, stablecoins graduate from "crypto-adjacent" curiosities to civic utilities. Smart contracts automate eligibility, claw-backs and even streaming tax collection, while AI agents negotiate payments on behalf of individuals and firms. Should the shock also undermine confidence in sovereigns, a black-swan outcome remains on the table: bitcoin's issuer-less neutrality could elevate it to reserve-asset status, relegating both CBDCs and institutional stablecoins to secondary roles.

Conclusion

Stablecoins have moved from niche crypto plumbing to credible candidates for the internet's native money. Scaling them now demands improvements across reserve integrity, robust consumer protections and effective compliance frameworks.

Reserves backed by high-quality, short-term Treasuries, transparent disclosures and capital buffers ensure redeemability. Bankruptcy-remote structures (such as trusts) give holders an enforceable claim, converting a digital IOU into bearer cash. Programmable anti-money laundering (AML) and countering-the-financing-of-terrorism (CFT) controls, leveraging on-chain analytics

and zero-knowledge proofs,[10] balance regulatory demands with privacy and the open access that fuels innovation and experimentation. Together, these pillars enable low-cost, instant settlement and programmable finance while fostering trust across payments, DeFi and global trade.

Growth also hinges on two strategic questions: Can permissionless networks and stablecoins modernize cross-border settlement faster than CBDCs, and will a common programmable-payments standard emerge before the world calcifies further into rival Western and Eastern stacks? How these resolve will decide whether stablecoins remain small relative to global money movement or become systemic financial infrastructure.

Recent policy and market signals underscore that the race is under way. In the United States, the GENIUS Act is advancing through Congress. Europe's Markets in Crypto-Assets framework has entered into force, and major incumbents — including Stripe (global stablecoin accounts),[11] Coinbase (commerce protocol with Shopify),[12] Visa, Mastercard and PayPal — have begun to embed stablecoins in merchant acquiring, settlement and retail payments. Concurrently, China's e-CNY and cross-border rails expansion and the Bank for International Settlements' mBridge project[13] demonstrate that CBDCs can slowly move beyond sandbox experimentation.

Benefits are already evident: in inflationary or underbanked regions, remote workers store their earnings in US dollar stablecoins, collapsing remittance costs and delivering M-Pesa-style financial inclusion — albeit amid renewed pushback against dollarization and concerns about big tech companies further expanding their role through digital wallets and payments.

Unsurprisingly, the role stablecoins will play across the global economy will largely depend on which geopolitical scenario unfolds. In a reformed Bretton Woods system, stablecoins serve primarily as efficiency upgrades to existing payment rails, with incumbent financial institutions and leading new entrants capturing most of the value. If a BRICS+ alternative emerges, stablecoins might be marginalized by state-sponsored CBDCs, retreating to corridors under stronger US influence.[14] A multipolar world could see stablecoins thrive in Western spheres while coexisting with CBDCs elsewhere, with bitcoin serving as neutral connective tissue between blocs due to its credibly neutral and censorship-resistant design. Under conditions of global disorder, stablecoins and CBDCs risk co-option by states as surveillance tools, while bitcoin's decentralized architecture and self-custody options position it as the premier hedge against capital controls and sovereign overreach.

As domestic instant-payment rails proliferate and on-chain settlement costs approach zero, the most plausible outcome is not a winner-takes-all monetary regime but a layered, interoperable one. Fully reserved, dollar-denominated stablecoins are poised to become the defacto connective tissue for G7-centric commerce and digital platform economies; CBDCs or domestic stablecoins will handle domestic policy objectives where political will and technical capacity align; and permissionless assets such as bitcoin will persist as "escape valves" in times of stress and geopolitically neutral infrastructure. The decisive variable is speed: whichever camp — public or private — delivers a programmable, safe and compliant standard first will set the baseline that everyone else must match. Either way, the direction is clear: money is converging on an always-on, programmable foundation, and the institutions and businesses that embrace this shift early on will write the next chapter of global finance.

10 Zero-knowledge proofs are cryptographic protocols that let one party prove a statement – for instance, that a wallet satisfies AML/CFT rules – without revealing any of the underlying transaction data, preserving privacy while maintaining verifiable compliance.

11 See Egan (2025).

12 See Coinbase (2025).

13 See www.bis.org/about/bisih/topics/cbdc/mcbdc_bridge.htm.

14 Several CBDC initiatives explicitly build privacy safeguards into their design. The European Central Bank's digital-euro prototypes, for example, include an offline mode meant to offer "cash-like" anonymity.

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