

Stablecoins Will Become the Future Standard for Payments?

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Abstract. Stablecoins—crypto-tokens are engineered to maintain a stable value, typically pegged to sovereign currencies—have evolved from niche trading instruments to candidates for mainstream payment rails. This paper will examine whether stablecoins can become a future payment standard. By examining recent market data, regulatory developments, and the historical economic criteria for assessing payment standards, this analysis demonstrates that stablecoins already facilitate trillions of dollars in annual transactions. It is also increasingly integrated into incumbent payment networks. However, they still fell short on three central pillars underlined by the central banks and the regulatory authorities: singleness of money, elasticity, and credible liquidity backstops for them, and last but not least, integrity. The most plausible pathway to achieving standard status lies in fully reserved, auditable, and regulated e-money-like tokens integrated into existing card and real-time payment networks, featuring seamless consumer experiences and guaranteed par redemption. In the absence of such guardrails, central bank digital currencies (CBDCs) and tokenized bank deposits are well-positioned to serve as the official standard while stablecoins remain complementary infrastructure.

Keywords: Stablecoins, Payment standard, Regulatory guardrails, Complementary infrastructure

1. Introduction

Regulatory regimes have shifted from observation to action: the European Union's Markets in Crypto-Assets (MiCA) stablecoin provisions came into force on June 30, 2024 [1]; the UK has consulted on issuer and custody rules; and Hong Kong's Stablecoins Ordinance took effect on August 1, 2025, establishing a licensing regime for fiat-referenced stablecoins. These regulatory developments reshape the incentive structures for issuers and custodians, restructure payment processing mechanisms, and redefine the normative requirements for compliant stablecoins [2].

When a system exhibits widespread acceptance, predictable denominations, interoperability across different jurisdictions, and a clear, legal framework, a payment standard would emerge. Card networks and real-time gross settlement (RTGS) systems achieved standard status by consistently fulfilling these criteria for merchants, consumers, and financial institutions. Stablecoins offer additional value propositions: instant settlement across open networks, programmability, and 24/7 operability at low cost.

Currently, the questions are whether these tokens can be transitioned from useful rails for digital-asset markets to a more generally accepted ways of payment across the broader economy market. To address this question, this paper compiles evidence on adoption, economics, and regulation, and proposes a feasible pathway for the standardization of stablecoins.

The economic context is of paramount importance. By 2024, on-chain data aggregators reported approximately \$5.7 trillion (As Figure 1. Shown below) in stablecoin transfer value, with the first half of 2025 adding roughly \$4.6 trillion more.

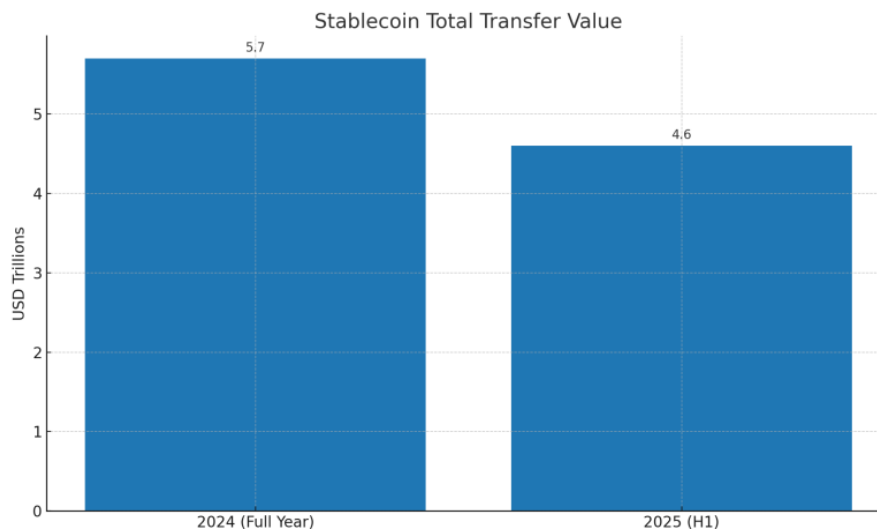


Figure 1. Stablecoin total transfer value: 2024 vs. H1 2025 (USD trillions)

These figures indicate not only extensive adoption within crypto capital markets but also the emergence of real-world use cases, such as cross-border payouts and remittances.

2. The components that can build up for standard payment

A robust taxonomy for assessing "payment standard readiness" includes five dimensions: (1) network reach, (2) singleness of money and unit-of-account clarity, (3) operational robustness, (4) integrity and compliance, and (5) scalable economics.

- **Network reach.** Merchant acceptance historically follows processor integrations. Recent pilots and deployments by major processors reduced frictions by abstracting chain selection, enabling underpinning stablecoin settlement, while keeping existing consumer experiences intact.
- **Singleness of money.** A standard requires par interchangeability across venues and time. For tokens backed by reserves, this hinges on high-quality liquid assets (HQLA), legal rights to redemption, and credible convertibility even during periods of market stress.
- **Operational robustness.** Merchants and acquirers demand predictable throughput, system uptime, dispute resolution mechanisms, and clear service-level agreements (SLAs). The finality characteristics of blockchain technology must be aligned with retail chargeback workflows and settlement schedules.

- Integrity and compliance. At scale, KYC/AML and sanctions controls must be embedded not only at the on/off-ramp but also within wallet and processor SDKs. Some jurisdictions, such as Hong Kong, now mandate identity verification of token holders for licensed issuance, indicating the compliance direction of travel.
- Scalable economics. End-to-end costs must be competitive with or undercut those of incumbent rails, particularly for cross-border payments where FX spreads and correspondent banking overhead remain substantial. Public chains with low fees and compliant issuers can, in principle, deliver lower all-in costs, provided on/off-ramps are efficient.

3. Market structure and use in 2025

The stablecoin market structure in 2025 remains highly concentrated among a small number of large fiat-referenced tokens. Tether (USDT) and USD Coin (USDC) together account for the overwhelming majority of circulating supply by market value, with MakerDAO's Dai (DAI) and PayPal USD (PYUSD) serving smaller niches. Concentration in the stablecoin market entails both advantages and risks. On the one hand, scale can underpin tighter spreads, deeper liquidity, and more frequent attestations. On the other hand, such concentration exacerbates issuer-specific governance risks and creates single points of failure in scenarios where reserves, custodial arrangements, or underlying blockchain networks face stress. The second chart in this paper visualizes this concentration as of August 2025.

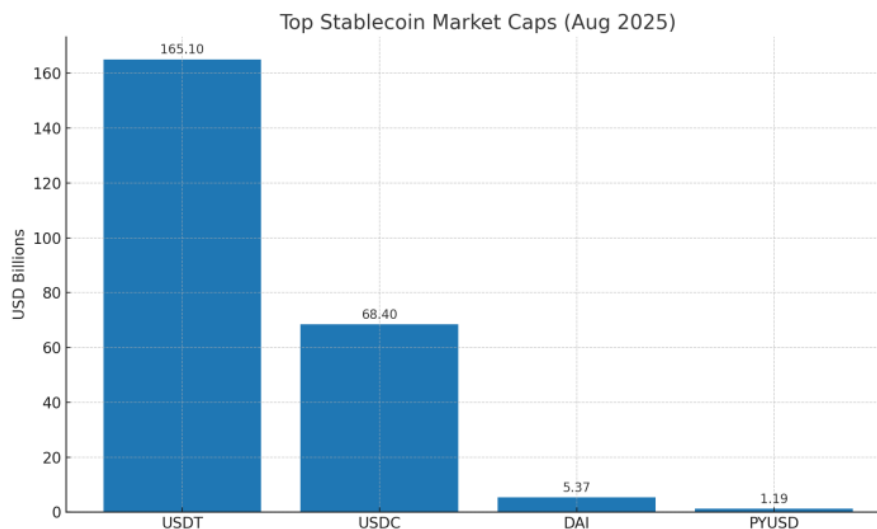


Figure 2. Market capitalization of leading stablecoins (Aug 2025, USD billions) [3]

Use cases have diversified beyond cryptocurrency trading. Treasury and corporate treasurers utilize stablecoins to facilitate dollar liquidity across exchanges and custodians; global platforms leverage them for creator and marketplace payouts; and remittance corridors increasingly leverage tokens and cash-in/out partners to curtail transaction costs. The third chart compares the World Bank's global average remittance cost with the United Nations Sustainable Development Goal (SDG) target of 3 percent, highlighting a persistent gap that compliant stablecoin rails aim to close in the coming years.

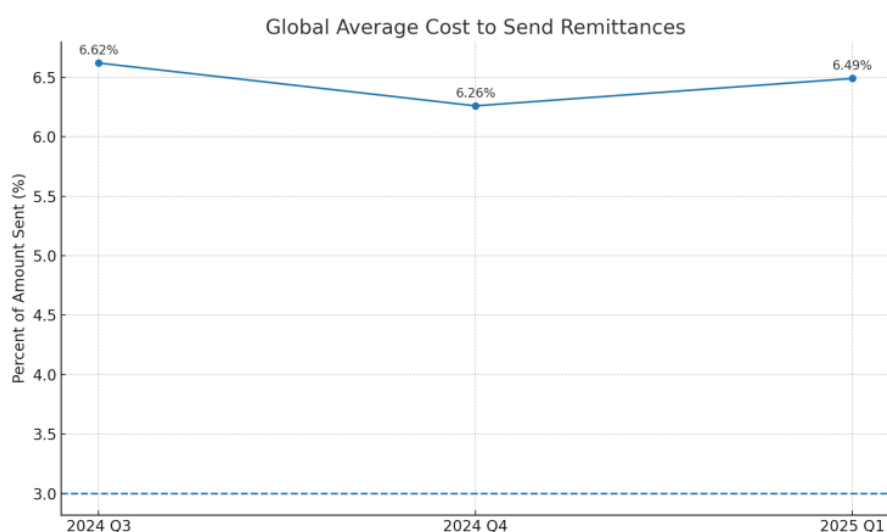


Figure 3. Global average remittance cost vs. SDG 3% target (2024–2025) [4]

4. Economic impacts and externalities

Stablecoin adoption exhibits macrofinancial linkages that are consequential for its path to standardization. First, reserve composition exerts a material influence on demand for short-term government securities [5]. Issuers that maintain full, high-quality liquid reserves—primarily cash and Treasury bills—aggregate into a non-trivial buyer base in money markets, with some estimates pegging their aggregate holdings around the low hundreds of billions of dollars. As stablecoin market capitalizations expand, this demand could scale endogenously, exerting spillover effects on Treasury bill yields and repurchase agreement (repo) market dynamics.

Second, the economics of cross-border payments may improve in contexts where open-network settlement displaces multi-hop correspondent banking arrangements. In corridors where average remittance costs persist above 6 percent, compliant stablecoins—paired with regulated on/off-ramps—could compress spreads by streamlining intermediary layers and enabling always-on netting. Realizing these savings at retail level, however, necessitates identity, consumer protection, and robust dispute frameworks aligned with local law.

Third, merchant acquiring economics depend on interchange and scheme fees as well as chargeback risk. If stablecoin-settled transactions are routed through existing acquiring networks with analogous consumer protections, fee structures are likely to converge toward those of traditional card payment systems. If, instead, programmable wallets facilitate direct-to-merchant settlement with embedded compliance and aliasing, there is potential for reduced all-in fees—especially for micro-merchants and cross-border sales. The ultimate outcome is expected to be heterogeneous across jurisdictions and merchant segments.

5. Regulation and supervision, 2023–2025

Regulatory convergence since 2023 has been decisive. In the European Union, stablecoin rules governing e-money tokens (EMTs) and asset-referenced tokens (ARTs) came into force on June 30, 2024 under MiCA. These regulations mandate issuer authorization, reserve quality standards, redemption rights, disclosure obligations, and ongoing supervisory oversight. The United Kingdom's Financial Conduct Authority (FCA) consulted in 2025 (CP25/14) [6] on issuer and custody

requirements coordinated with the Bank of England, foreshadowing a domestic regime aligned with prudential standards. Hong Kong's Stablecoins Ordinance, effective August 1, 2025 [7], established a licensing framework for fiat-referenced stablecoin issuance under the Hong Kong Monetary Authority (HKMA), including stringent client-identity requirements. These regulatory measures reflect a broader policy consensus: algorithmic stabilization mechanisms are inadequate for payment use cases, and reserve-backed stablecoin models must adhere to electronic money-like safeguard standards.

Regulatory stringency is not merely a compliance cost; it constitutes a prerequisite for standardization. A payment standard must guarantee monetary singleness and resilience during stress events. This entails daily public disclosure of reserve holdings, frequent independent assurance or audit procedures, high-quality liquid reserve assets, segregated custodial arrangements, explicit par redemption commitments, and contingency liquidity frameworks. Jurisdictions moving in this direction are likely to attract issuers seeking legitimacy and access to incumbent payment networks.

6. Risks and operational considerations

Despite progress, key risks remain. Peg stability remains vulnerable to reserve mis-management, operational failures, or banking-partner disruptions, as illustrated by historical de-pegging incidents in the sector. Operational concentration on a single high-throughput blockchain may give rise to correlated operational downtime or compliance vulnerabilities. Fragmentation across tokens and chains can undermine unit-of-account clarity for both consumers and merchants. Finally, inconsistent or excessively restrictive identity requirements may hinder financial inclusion or drive activity toward less regulated venues. A viable standard must mitigate these risks through interoperable addressing, multi-chain issuance with consistent controls, and privacy-preserving compliance frameworks where permitted by applicable law.

7. Future application directions

1) Regulated e-money-like stablecoins become embedded rails. Card networks, acquirers, and real-time payment systems integrate reserve-backed tokens as settlement instruments. Consumers and merchants interact via familiar UX while settlement finality occurs on chain. Compliance obligations and consumer protection measures are aligned with existing payment standards. This scenario necessitates harmonized prudential rules and wallet-level compliance by design.

2) CBDCs and tokenized deposits set the standard; stablecoins fill niches. Central banks and commercial banks provide digital cash and deposit tokens with direct or indirect public liquidity backstops. Stablecoins focus on cross-border use cases, treasury liquidity management, and programmability in DeFi-adjacent contexts.

3) An open interop standard emerges across compliant stablecoins. Addressing protocols and travel-rule messaging systems achieve interoperability across issuers and blockchain networks, enabling wallet-to-wallet retail payments with clear dispute resolution and refund policies. If paired with robust reserves and instant redemption, this future could compete with traditional card networks in select segments, notably cross-border ecommerce and remittances.

8. Policy steps to achieve standard status

To advance toward stablecoin payment standard status, five critical policy and industry measures are required: (a) uniform, enforceable prudential requirements for full-reserve, high-liquidity asset holdings; (b) guaranteed redemption at par with compressed settlement timeframes; (c) compliance-by-design, including sanctions screening and travel-rule messaging integrated into wallet SDKs; (d) interoperable aliasing and routing to minimize user exposure to blockchain selection; and (e) merchant-grade SLAs and dispute resolution frameworks comparable to those of card and instant-payment schemes. These measures, when paired with robust transparent reporting mechanisms, would directly mitigate central bank concerns and align stablecoin payment infrastructure with public policy objectives.

9. Conclusion

Stablecoins have already attained substantial scale as transactional instruments in digital asset markets and have begun to penetrate mainstream payment ecosystems through processor integrations and remittance corridors. However, payment standards demand more than throughput and low fees. They require monetary singleness, credible liquidity backstops, embedded compliance, and merchant-grade operations across jurisdictions. The regulatory shift in the EU, UK, and Hong Kong—along with emerging U.S. frameworks—establishes a pathway for fully reserved, auditable, and supervised stablecoins to serve as one of the standards for programmable, cross-border-friendly payments. In the absence of such regulatory safeguards, CBDCs and tokenized deposits are likely to assume the role of official standards, with stablecoins remaining powerful but complementary payment infrastructure. Over the next three to five years, the determining factors will be harmonized prudential rules, wallet-level compliance and UX, and tested redemption in stress. If these conditions are met, stablecoins can credibly emerge as a mainstream payment standard—particularly in international commerce and cross-border remittances.

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