

Legal Regulation of Stablecoins: International Experience and China's Response

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Abstract: Stablecoins possess dual attributes as both payment instruments and settlement assets. While their cross-border circulation and network externalities enhance payment efficiency and financial inclusion, they also raise concerns regarding currency substitution, regulatory arbitrage, and systemic risks. The international community is gradually forming a regulatory philosophy centered on "same risks, same regulation; technology neutrality; and cross-border collaboration." The U.S. GENIUS Act establishes a unified federal framework, the EU's MiCA builds a tiered classification and differentiated regulations, while Hong Kong's Stablecoin Ordinance creates a compliance testing ground based on the benchmark of "one coin, one license" principle and 100% reserve requirements. Against the backdrop of RMB internationalization and the steady advancement of digital RMB, China should seize development opportunities while upholding national monetary sovereignty and financial security. It should implement integrated domestic and international oversight, establish systems including licenses issuance, capital and reserve constraints, mandatory disclosure and audits, and utilize regulatory sandboxes for limited piloting and gradual rollout. This approach will harness the institutional functions of stablecoins while maintaining controllable risks.

Keywords: stablecoin; international regulation; regulatory sandbox

Introduction

With the iteration of blockchain infrastructure and mechanism design, stablecoins—anchored to fiat currencies and characterized by "payment-as-settlement plus on-chain programmability"—have rapidly embedded themselves in emerging domains such as cross-border micro-payments, digital trade, and asset settlement. They have become a crucial vehicle for digital finance's transition from an information internet to a value internet.

Stablecoins possess dual attributes as both payment instruments and settlement assets, blurring boundaries between traditional e-money, prepaid value instruments, deposits, and securities. Their network externalities and cross-border accessibility amplify procyclical volatility and regulatory arbitrage transmission channels. Undeniably,

stablecoin expansion is reshaping understandings of monetary sovereignty, safety margins, and payment jurisdictions. Taking recent U.S. stablecoin legislative direction as an example, the enactment of the Guiding and Establishing National Innovation for U.S. Stablecoins Act ^([1]), hereinafter referred to as the "GUNIUS Act") not only legitimizes stablecoins from a risk perspective but also embeds U.S. dollar cash and short-term Treasury bonds into an on-chain reserve system within the "digital finance-monetary power" framework. By "tokenizing the dollar," it extends its rule-supply capabilities in cross-border payments and the Web3 ecosystem, aiming to maintain the dollar's monetary hegemony. Hong Kong SAR, China, has enacted the Stablecoin Ordinance ^([2]), establishing a compliance testing ground through stringent licensing and ongoing prudential oversight. This gradually shapes the international baseline of "same risks, same regulation; technology neutrality; cross-border collaboration." China's stance toward cryptocurrencies has evolved alongside its understanding of their nature. Compared to the cautious regulatory stance toward cryptocurrencies in the China Financial Stability Report (2023) ^([3]), the China Financial Stability Report (2024) emphasizes that within the existing framework of financial security and capital account management, high-risk activities will be continuously addressed while strengthening penetrative and ongoing supervision. Digital financial infrastructure centered on the digital yuan (e-CNY) is advancing steadily, with new pathways for cross-border clearing being explored through multilateral central bank cooperation platforms. ^([4]) If the economic functions of crypto assets and global stablecoins are identical to traditional financial services, they should be subject to the same regulatory requirements. How to construct a rule system that aligns with China's institutional environment and complements the functions of the digital yuan within the objective sequence of sovereignty-stability-innovation, enabling stablecoins to operate within the rule of law and be subject to continuous assessment, has become a shared challenge for policy-making and academic research.

1. Fundamental Legal Attributes and Regulatory Requirements of Stablecoins

1.1 Basic Conceptual Analysis of Stablecoins

A stablecoin refers to a cryptographic value carrier issued by a specific entity on a distributed ledger, anchored to the value of fiat currency, commodities, or other verifiable assets. It suppresses nominal price volatility through redemption and reserve arrangements to fulfill payment and settlement functions. ^([5]) Its "stability" does not stem from algorithmic self-sufficiency but from the verifiability and enforceability of its anchoring mechanism and governance structure. International organizations typically classify arrangements with multi-jurisdictional reach and cross-border

^[1] United States, *Guiding and Establishing National Innovation for U.S. Stablecoins Act* (GENIUS Act), enacted July 18, 2025.

^[2] Legislative Council of the Hong Kong Special Administrative Region: The Stablecoin Ordinance, Ordinance No. 17 of 2025, Chapter 656 of the Laws of Hong Kong, effective August 1, 2025.

^[3] People's Bank of China: China Financial Stability Report (2023), compiled by the Financial Stability Bureau of the People's Bank of China, December 2023, <http://www.pbc.gov.cn/jinrongwendingju/146766/146772/5177895/2023122217072818365.pdf>, Last accessed: August 24, 2025.

^[4] People's Bank of China: China Financial Stability Report (2024), compiled by the Financial Stability Bureau of the People's Bank of China, December 2024, <http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/5547040/2024122816044339215.pdf>, Last accessed: August 24, 2025.

^[5] F. Cengiz, *Stablecoins and their regulation: a Hayekian approach*, *Journal of International Economic Law*, Vol. 28, No. 2 (2025), p. 204. The article begins by defining "Stablecoins are digital currencies that operate on a blockchain whose value is pegged to another asset to prevent volatility."

network effects as global stablecoins based on scope and spillover effects, establishing regulatory baselines of "same business, same risks, same regulation," technology neutrality, and cross-border cooperation.^[6] The EU's Markets in Crypto-Assets Regulation (MiCA) further categorizes stablecoins based on their anchoring objects and functions into Electronic Money Tokens (EMT, pegged to a single fiat currency) and Asset-Referenced Tokens (ART, pegged to multiple assets or commodities), applying differentiated access and prudential rules accordingly.

Further typology based on operational mechanisms and governance structures yields two complementary dimensions: First, by pegging and stabilization methods: (1) Fiat-collateralized: Fully or highly reserved with high-liquidity assets (cash, deposits, short-term government bonds, etc.) of the same currency equivalent to the issuance scale, enabling one-to-one conversion with fiat currency upon holder redemption requests; (2) Crypto-asset collateralized: Overcollateralized with mainstream crypto assets, supplemented by liquidation and auction mechanisms to maintain peg (e.g., smart contracts automatically managing collateral ratios); (3) Algorithm-based: Stabilized through supply adjustments or dual-token structures, but prone to contagion risks during liquidity squeezes or confidence shocks; (4) Commodity-backed: Reserves backed by physical assets like gold, representing variants of "real-world assets" mapped onto the chain. Second, based on governance and custody structures, stablecoins are categorized as centralized issuance (where issuers centrally manage minting, redemption, disclosure, and reserve custody—offering strong auditability but high credit dependency) and decentralized protocols (where smart contracts automatically enforce listing rules, with governance tokens or DAOs voting to adjust parameters—reducing single points of failure but introducing significant complexity and stability risks during extreme market conditions).^[7]

Within China's legal framework, defining stablecoins requires addressing three questions: "Is it currency?", "Is it a deposit or payment balance?", and "Is it virtual property?" This paper argues that stablecoins are not legal tender. Under current law, the Renminbi is the sole legal tender within China. Stablecoins lack legal tender status and compulsory circulation, and cannot be issued, exchanged, settled, or used for wealth management as currency substitutes within the country. Stablecoins differ from bank deposits and payment account balances. Per the Administrative Measures for Online Payment Services of Non-Bank Payment Institutions, customer balances held by third-party payment institutions constitute prepaid value. These balances must be held in dedicated bank accounts under segregated management, independent custody, and purpose restrictions. Payment institutions may only initiate fund transfers to banks upon customer instruction. Thus, the balance held by payment institutions fundamentally represents a custodial relationship for customer funds.^[8] This differs legally from stablecoins issued as redeemable tokens. Stablecoin transactions do not flow synchronously with bank deposits; their "1:1" promise stems from the issuer and independent custodian's obligation to fulfill counterparty payments per issuance terms. Without safety mechanisms like licensing, dedicated reserves, independent custody, and full disclosure, the redeemable value certificate nature of stablecoins struggles to

^[6] Douglas Arner, Raphael Auer, and Jon Frost, "Stablecoins: Risks, Potential and Regulation," *BIS Working Paper* No. 905 (Bank for International Settlements, November 2020), pp. 1–2, 11–13.

^[7] Hafner, M., Pereira, M.H., Dietl, H., & Beccuti, J. (2024). The four types of stablecoins: A comparative analysis. *Ledger*, (09), 109–111.

^[8] See Article 7 of China's Administrative Measures for Online Payment Services of Non-Bank Payment Institutions.

meet China's compliance baseline for payment settlement activities. Stablecoins should be presumed as virtual property and regulated according to functional risk-based intensity.^[9] Article 127 of the Civil Code has established a legal protection pathway for "data and virtual property on the internet." In individual cases, legally acquired stablecoins meet the property criteria of "existing in electronic record form, possessing disposability and exclusivity, and being recognized by the community." The holder shall be entitled to the rights of possession, use, benefit, and disposition, but the exercise of these rights must comply with the boundaries set by financial regulation and public order management.^[10]

1.2 Analysis of the Necessity for Stablecoin Regulation

1.2.1 Functional Value of Stablecoins

Within the crypto asset trading sphere, stablecoins have become the de facto crypto dollar standard, settling over 90% of Bitcoin transactions. Investors leverage stablecoins to conduct dollar-denominated transactions in digital markets, significantly enhancing market liquidity and trading convenience. In certain emerging economies (such as Argentina and other high-inflation economies), stablecoins are viewed as digital safe-haven assets for the general populace due to their stable value. They account for approximately 72% of local crypto trading volume, serving as an alternative store of value.^[11] By anchoring their value to fiat currencies, stablecoins have rapidly evolved from marginal experiments into vital bridges connecting the fiat monetary system with the crypto ecosystem, with their market influence growing daily.

Combining traditional monetary credit with blockchain technology, stablecoins deliver high efficiency and low costs in payment settlements. Compared to cross-border wire transfers that take days and incur high fees, stablecoins enable peer-to-peer near-real-time settlements with negligible transaction costs. While approximately 30% of traditional micro-remittances take over a day to complete, stablecoin transactions can be settled within an hour, with a \$200 transfer costing only about \$0.00025.^[12] Stablecoins eliminate intermediaries and reduce costs, enabling "payment as settlement" to enhance capital flow efficiency. Simultaneously, they decrease reliance on USD clearing, providing participation opportunities for SMEs and the unbanked in underserved regions, thereby promoting financial inclusion. Consequently, they have garnered significant attention in cross-border payments and e-commerce scenarios.

The widespread adoption of stablecoins has not only streamlined payments but also reshaped the landscape of global digital finance, becoming a cornerstone of the cryptocurrency market and decentralized finance (DeFi). As a vehicle for "value anchoring," stablecoins enable investors to temporarily hedge against risks or lock in gains during crypto transactions, serving as liquidity pools within digital markets.^[13]

^[9] Qi, A.M., & Wang, L. (2024). Global trends in legal regulation of stablecoins and prospects for China's rule of law path. *Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition)*, (06), 90.

^[10] Ibid., p. 90.

^[11] David Murakami & Ganesh Viswanath-Natraj, *Cryptocurrencies in Emerging Markets: A Stablecoin Solution?*, *Journal of International Money and Finance*, Vol. 156, p. 2, 17 (2025); Chainalysis, *The 2024 Geography of Cryptocurrency Report*, at <https://www.chainalysis.com/> (Last visited on August 24, 2025), p.36.

^[12] Barry, E.E., & Viswanath-Natraj, G. (2025). Stablecoins in digital payouts: Bridging traditional and blockchain-powered systems. *European Journal of Computer Science and Information Technology*, (14), 10–11.

^[13] Gupta, A. (2025). The role of stablecoins in tokenomics: Economic anchors and volatility reduction. *International Journal of Trend in Scientific Research and Development*, (03), 1038.

Due to their price stability, stablecoins effectively perform the payment and pricing functions of fiat currency within the crypto ecosystem. Various decentralized exchanges and lending protocols widely adopt stablecoins as both the unit of account and collateral, thereby enabling diverse financial applications such as on-chain lending and decentralized exchanges. Without the stable pricing benchmark provided by stablecoins, highly volatile crypto assets would struggle to be directly utilized in complex financial contracts. This underscores stablecoins as foundational infrastructure supporting the entire digital finance ecosystem.^[14] According to a BCG report, global stablecoin transaction volume reached \$26.1 trillion by the end of 2024. Other analyses indicate even higher figures: McKinsey estimates volume exceeding \$27 trillion, while outlets like CoinTelegraph report \$27.6 trillion in stablecoin transactions—surpassing the combined volume of Visa and Mastercard for the first time.^[15] Stablecoins have rapidly emerged as a high-frequency transaction medium and value exchange infrastructure in the digital economy era. Not only individual investors but also large institutions and multinational corporations have begun utilizing stablecoins for fund transfers and cross-border settlements. Statistics show that over the past year, the total value of business-to-business (B2B) payments far exceeded peer-to-peer (P2P) payments: B2B payments reached an annualized transaction volume of approximately \$3.6 billion, accounting for 50% of total volume, while P2P payments reached an annualized volume of about \$1.8 billion.^[16] Stablecoins are expanding beyond the crypto sphere into broader commercial domains, unlocking new innovation opportunities for financial markets. These include supply chain finance (using stablecoins for goods settlement to shorten capital turnover cycles) and the tokenization of securities and physical assets (enabling 24/7 trading of tokenized assets denominated in stablecoins). Furthermore, stablecoin account systems and the programmability of smart contracts offer vast potential for future financial product innovation and FinTech regulatory applications.^[17]

1.2.2 Regulatory Implications of Stablecoins

As stablecoins rapidly expand in scale, their impact on the macro-financial system has become increasingly prominent, making them a regulatory focus for nations worldwide. USD-denominated stablecoins (such as USDT and USDC) have formed a global "USD-stablecoin-crypto market" cycle, reinforcing the USD's dominant role in digital asset transactions. U.S. financial giants and tech companies are actively expanding into stablecoins. Visa and Mastercard have launched cross-border clearing pilots, while PayPal introduced the dollar-pegged PYUSD in 2023, leveraging on-chain settlement technology to capture the digital dollar payment market. Take Tether as an example: with approximately 165 employees, the company achieved over \$13 billion in net profit in 2024—nearly matching Citigroup's performance—demonstrating the high-yield potential of stablecoin operations.^[18]

^[14] Naifar, N. (2025). Mapping systemic tail risk in crypto markets: DeFi, stablecoins, and institutional investors. *Journal of Risk and Financial Management*, 18(6), 329.

^[15] Boston Consulting Group, *Stablecoins: Five Killer Tests to Gauge Their Potential*, BCG Report, 2024, p. 15; CoinTelegraph, *Stablecoins Processed \$27.6 Trillion in 2024, Surpassing Visa and Mastercard Combined*, at <https://cointelegraph.com/news/stablecoins-beat-visa-mastercard-2024-volume> (Last visited on August 3, 2025).

^[16] PYMNTS, *Stablecoins Fuel \$36 Billion in B2B Payments as Issuers Eye Mature Markets*, at <https://www.pymnts.com/news/b2b-payments/2025/stablecoins-fuel-36-billion-dollars-b2b-payments-issuers-eye-mature-markets> (Last visited on August 3, 2025).

^[17] Zhang, L.Y. (2025, August 4). SoK: Stablecoins for digital transformation—Design, metrics, and application with real world asset tokenization as a case study. arXiv, p. 4.

^[18] Tether, *Tether Hits 13 Billion Profits for 2024 and All-Time Highs in U.S. Treasury Holdings, USDT Circulation and Reserve Buffer in Q4 2024 Attestation*, at <https://tether.io/news/tether-hits-13-billion-profits-for-2024-and-all-time-highs-in-u-s-treasury-holdings-usdt-circulation-and-reserve-buffer-in-q4-2024-attestation> (L

Tether obtains interest-free funds by issuing USDT against user deposits of U.S. dollars, then invests its reserves in U.S. Treasury bonds and repurchase agreements to earn interest spreads. In Q4 2024 alone, this business generated approximately \$7 billion in quarterly interest income.^[19] By the end of 2024, Tether held about \$113 billion in U.S. Treasuries, ranking among the world's largest holders of U.S. debt. This high profitability and financial influence attract diverse capital, prompting major Chinese tech companies to actively pursue stablecoin licenses and expand into cross-border payments and global operations. Both JD.com and Ant Group have entered Hong Kong's stablecoin regulatory sandbox and plan to submit applications, once the Stablecoin Ordinance takes effect, reflecting their confidence in stablecoins' potential for payment clearing, supply chain finance, and international settlements.^[20]

Stablecoins present both challenges and opportunities within sovereign currency systems. Under proper guidance, they can serve as a beneficial complement to the digitization of fiat currencies, supporting national strategic objectives. On one hand, stablecoins can expand cross-border channels for sovereign currencies, enhancing internationalization. The global prevalence of dollar-pegged stablecoins further solidifies the dollar's dominance. The U.S. Treasury views reliable dollar stablecoins as a supplement to cash and bank deposits, facilitating digital transactions in other countries and thereby reinforcing dollar hegemony.^[21] Consequently, some developed economies have adopted a dual approach of openness and regulation, integrating stablecoins into their financial strategies rather than imposing blanket bans. On the other hand, the rise of stablecoins has spurred nations to accelerate the development of central bank digital currencies (CBDCs) to safeguard monetary sovereignty and control over payment systems. China has launched the digital yuan, but its cross-border applications remain limited; meanwhile, USD-pegged stablecoins leverage their first-mover advantage to dominate international payments and cryptocurrency markets. Allowing foreign currency stablecoins to permeate domestic economies could erode the status of local currencies. Regulatory solutions may encourage commercial banks or large institutions to issue compliant, locally-pegged stablecoins for cross-border trade and investment, achieving a win-win for digital currency adoption and financial oversight. A dual-track system of central bank digital currencies alongside private stablecoins may become the new normal for sovereign digital monetary frameworks.^[22] However, while stablecoins enhance payment efficiency and financial innovation, they also carry significant risks. Their circulation not only exhibits inherent structural vulnerabilities—such as dependence on anchoring and redemption capabilities—but may also generate spillover shocks to the macro-financial system. As market scale and transaction volumes grow, regulatory oversight and risk assessment must comprehensively cover stablecoin issuance,

ast visited on September 3, 2025); Bloomberg, *Tether Reports \$13 Billion in 2024 Net Profits as It Rival s Citigroup's \$14.3 Billion Earnings*, at <https://www.bloomberg.com/news/articles/2025-01-31/stablecoin-issue-r-tether-says-profit-was-13-billion-last-year> (Last visited on September 3, 2025).

^[19] CoinTelegraph, *How Tether Made \$5.2B in 2024: Here's How Stablecoins Make Money*, at <https://cointelegraph.com/explained/tether-made-52b-in-2024-heres-how-stablecoins-make-money> (Last visited on September 3, 2025).

^[20] Reuters, *China's tech giants lobby for offshore yuan stablecoin, sources say*, at <https://www.reuters.com/world/china/chinas-tech-giants-lobby-offshore-yuan-stablecoin-sources-say-2025-07-03> (Last visited on September 3, 2025).

^[21] U.S. Secretary of the Treasury Scott Bessent, *Statement on Enactment of the GENIUS Act*, at <https://home.treasury.gov/news/press-releases/sb0197> (Last visited on September 3, 2025).

^[22] Bank for International Settlements (BIS), "III. The next-generation monetary and financial system," BIS Annual Economic Report (June 24, 2025), Chapter III, pp. 26–28.

reserve management, cross-border circulation, and systemic financial impacts. This ensures stablecoins serve the real economy in the digital finance era without threatening financial stability.

1.3 Inherent Risks of Stablecoins and Challenges to Macro-Financial Stability

1.3.1 Mechanisms of Inherent Risks in Stablecoins

Stablecoins achieve value anchoring through asset collateralization, yet their operational mechanisms carry risks related to reserve assets and credit dependency. Issuers may allocate portions of reserves to high-risk or illiquid assets in pursuit of returns. Should market or interest rate fluctuations cause asset devaluation, reserve pool security is compromised, holder interests are impacted, and market confidence rapidly erodes. When redemption requests surge, stablecoins lacking deposit insurance or lender-of-last-resort support can enter a "run" cycle, causing price anchoring to fail and potentially triggering a short-term collapse. In May 2022, UST lost its peg under extreme market pressure, plummeting from \$1 to near zero within days and evaporating hundreds of billions in market value—a classic case study.^[23] In March 2023, the major stablecoin USDC briefly fell below its peg to \$0.87 after the sudden collapse of Silicon Valley Bank, where part of its reserves were held, triggering global market panic in the stablecoin sector.^[24] This demonstrates that both algorithmic failures and damage to reserve assets can undermine stablecoins' ability to deliver on their promise of value stability.

Stablecoin operations heavily rely on blockchain smart contracts and network systems, where technical vulnerabilities or operational errors can trigger systemic failures. Severe bugs within the stablecoin system could even cause the entire network to collapse. Externally, hacker attacks threaten the security of stablecoin ledgers and funds. In 2021, the cross-chain bridge Poly Network was exploited by hackers due to a program vulnerability, resulting in the theft of approximately \$600 million in crypto assets within a short period and causing significant economic losses for global cryptocurrency investors. Should stablecoin smart contracts face similar attacks, user funds and the stablecoin's peg would suffer severe impacts. Furthermore, stablecoin pricing relies on on-chain and off-chain interaction mechanisms like oracles. Technical failures could trigger price volatility and transaction disruptions, introducing operational risks. Thus, technological security and system robustness form the foundation for stablecoin circulation. Once technical risks materialize, maintaining stablecoin value becomes challenging.^[25]

Simultaneously, stablecoins issued through internet platforms exhibit pronounced "platform attributes," enabling rapid expansion via network effects to establish monopolistic positions. Large tech companies entering the stablecoin space fundamentally leverage their vast user bases and data advantages to expand into financial domains like payments. Once a stablecoin platform gains first-mover advantage, it may exclude competitors by sealing off data and interfaces, undermining

^[23] Jiageng Liu, Igor Makarov, and Antoinette Schoar, *Anatomy of a Run: The Terra-Luna Crash*, MIT Sloan Research Paper No. 6847-23, NBER Working Paper No. 31160 (April 11, 2023), p. 1.

^[24] The Guardian, *USD Coin value falls after revealing \$3.3bn held at Silicon Valley Bank*, at <https://www.theguardian.com/technology/2023/mar/11/usd-coin-depeg-silicon-valley-bank-collapse> (Last visited on September 3, 2025).

^[25] Sung-Shine Lee, Alexandr Murashkin, Martin Derka, and Jan Gorzny, "SoK: Not Quite Water Under the Bridge: Review of Cross-Chain Bridge Hacks," *Proceedings of the IEEE Symposium on Security and Privacy Workshops (SPW)* (2022): p. 2.

fair competition in the payments sector. More critically, if a platform-monopolized stablecoin spirals out of control, its destructive impact could ripple across the entire market. Platform-based stablecoins, controlling vast amounts of data and capital, can easily balloon to become "too large to fail" and interlinked to such an extent that they become "too wide to fail."

1.3.2 External Risks of Stablecoins

Widespread circulation of stablecoins may introduce external risks to the macro-financial system. Stablecoins pegged to foreign currencies like the US dollar circulating globally could trigger "currency substitution," undermining the status of a nation's sovereign currency. The International Monetary Fund refers to this as "monetary cryptoization," where residents use stablecoins instead of domestic currencies for transactions, circumventing legal tender systems and foreign exchange controls. This weakens monetary policy transmission and central bank regulatory capabilities. Simultaneously, cross-border circulation may exacerbate disorderly capital flows and foreign exchange volatility, complicating capital inflow/outflow management and increasing outflow pressures.^[26]

The widespread adoption of stablecoins may also reshape the payment and clearing ecosystem, introducing new systemic risks. By bypassing traditional banks and payment institutions, they establish peer-to-peer value transfer networks, enabling "payment as settlement" in cross-border transactions and reducing transaction costs. However, the parallel circulation of multiple private stablecoins could fragment the payment system. Incompatibility between different chains necessitates reliance on crypto exchanges or bridging technologies for cross-chain transfers, introducing additional costs, operational vulnerabilities, and security risks.^[27] Moreover, the predominantly enterprise-maintained closed networks result in low transparency of transaction data and fund flows, making real-time monitoring difficult for regulators. Malicious actors may exploit these networks for illicit activities such as money laundering and terrorist financing, amplifying financial crime and regulatory arbitrage risks.^[28] The convergence of these factors enables stablecoins to disrupt existing payment systems, erode central banks' control over payment terminals, and introduce new sources of financial instability.

At the financial market level, once stablecoins become widely integrated into the system, their credit and market risks can propagate through multiple channels, triggering systemic issues. Although pegging mechanisms claim to maintain value stability, they rely on issuers' sustained redemption capacity. Should market doubts arise regarding solvency or reserve adequacy, holder confidence could rapidly collapse, triggering concentrated redemptions—a classic run crisis.^[29] Stablecoins are increasingly interconnected with traditional financial institutions, such as banks or funds involved in reserve custody or investments in related assets. Should the credit of a major stablecoin collapse, it would impact the balance sheets of financial institutions, triggering broader financial turmoil. Market volatility could also affect

^[26] Le, A. H., Neiman, B., & et al. (2023, December 5). Macro-financial impacts of foreign digital money. *IMF Working Paper*, pp.1–2, 10.

^[27] Bank for International Settlements (BIS), "Cross-border regulatory and supervisory issues of global stablecoin arrangements," in *Cross-border Payments* (BIS/FSB Report, July 23, 2024), pp. 1–2, 32–33.

^[28] Anthony Owen, Grace Dawson, and Joyce Walker, "The Role of Stablecoins in Money Laundering and Financial Crime," *Journal of Financial Crime* 32, no. 1, p. 48. (2025).

^[29] Gorton, G. B., & Zhang, J. Y. (2023). Taming wildcat stablecoins. *The University of Chicago Law Review*, 90(3), 909, 913.

the real economy through wealth effects and confidence channels: diminished investor wealth and shaken confidence would lead to reduced consumption and investment, while substantial capital stagnating in crypto speculation would divert credit resources away from serving the real economy. The International Monetary Fund has recommended implementing prudential regulation commensurate with the risks posed by stablecoins to prevent them from evolving into a "grey rhino" event that threatens financial stability.^[30]

In summary, stablecoins exhibit both endogenous mechanisms and technological vulnerabilities while posing cross-market and cross-border spillover risks. From currency issuance and policy transmission to payment systems and financial stability, private stablecoins may erode the status of national sovereign currencies and disrupt existing financial order. While reaping the benefits of stablecoin innovation, regulators worldwide must remain vigilant against potential risks, refine regulatory frameworks, and ensure financial innovation remains on a sound development trajectory.

2. Research on Regulatory Approaches for Stablecoins from a Comparative Law Perspective

2.1 Promoting Payment Jurisdictionalization and Regulatory Division of Labor Coordination—The United States

In recent years, U.S. stablecoin regulation has shifted from a fragmented multi-agency approach toward unified federal legislation. As a novel payment instrument, stablecoins previously lacked dedicated legal frameworks, with oversight fragmented among agencies such as the Treasury Department, Federal Reserve System (Fed), Commodity Futures Trading Commission (CFTC), and Securities and Exchange Commission (SEC) within their respective jurisdictions. This fragmented regulatory landscape resulted in inconsistent standards and legal uncertainty, creating market volatility and innovation barriers. As the stablecoin market rapidly expanded—with USD-pegged stablecoins exceeding \$220 billion in circulation by April 2025—^[31] Given the potential implications of stablecoins for financial stability and consumer protection, regulatory legislation has become imperative. Against this backdrop, the U.S. Congress proposed and advanced the passage of the GUNIUS Act. Following bipartisan negotiations, the bill was voted into law by Congress in July 2025 and signed by President Trump. The GUNIUS Act establishes unified federal regulations for stablecoins, bridging regulatory gaps and promoting coordinated oversight among agencies. As the first U.S. federal legislation specifically targeting stablecoins, it comprehensively addresses issuance, operations, and regulatory responsibilities. It clarifies the definition and regulatory scope of stablecoins while imposing stringent compliance obligations on issuers. The bill defines "payment stablecoins" as digital assets used for payment or settlement. Issuers are obligated to redeem tokens at a fixed amount and maintain the token's value stable relative to a fixed amount of fiat currency.

First, the bill establishes a licensing system for stablecoin issuers, prohibiting any

^[30] Financial Stability Board (FSB), *High-Level Recommendations for the Regulation, Supervision and Oversight of Global Stablecoin Arrangements*, FSB Final Report, p. 9 (2023).

^[31] U.S. Department of the Treasury Financial Technology Advisory Committee, *Current State of the Stablecoin Market* (April 30, 2025), at <https://home.treasury.gov/system/files/136/FTAC-Stablecoin-Report-Apr2025.pdf> (Last visited on September 3, 2025).

entity from issuing payment-type stablecoins within the United States without authorization. Violators will be barred from conducting related business. Regulation adopts a dual federal-state framework: Federal agencies including the Federal Reserve, OCC, and FDIC oversee licensing and supervision. However, stablecoins with total issuance below a certain threshold (e.g., \$10 billion) may opt for state-level regulation equivalent to federal standards.^[32] The bill establishes a Stablecoin Certification Review Board comprising the Treasury Secretary, Federal Reserve Chair, and FDIC Chair. This board determines whether state regulatory regimes are equivalent to federal standards and unanimously approves issuance applications from non-financial enterprises. During the approval process, regulators comprehensively evaluate applicants' financial condition, corporate governance, creditworthiness of executives and directors, adequacy of redemption policies, and compliance of affiliated entities to determine licensing eligibility.^[33] The bill strictly regulates stablecoin reserve management and redemption mechanisms, enforcing the "full reserve" principle to ensure stable pegged value. Issuers must hold equivalent amounts of highly liquid, secure assets as reserves, including U.S. dollar cash, demand deposits, and low-risk assets such as U.S. Treasury securities approved by regulators, achieving 100% reserve coverage.^[34] The stablecoin redemption system mandates transparency, allowing holders to exchange tokens for fiat currency at a 1:1 par value with disclosed associated fees. Issuers must monthly disclose reserve asset size and composition, undergo certified public accountant audits, and have disclosures jointly signed by the CEO and CFO to ensure accuracy. Large-scale issuers additionally require periodic submission of audited financial statements.^[35]

The U.S. GUNIUS Act embodies technology neutrality and innovation encouragement through differentiated regulation of stablecoins. It primarily regulates fiat-pegged payment stablecoins while refraining from outright banning non-payment stablecoins. Instead, it requires regulators to assess their use cases and governance mechanisms, leaving room for future regulation. The bill clarifies that qualified payment stablecoins are neither securities nor commodities, eliminating legal uncertainty. It classifies issuers as "financial institutions" under the Bank Secrecy Act, imposing anti-money laundering and counter-terrorist financing obligations, and prohibits bundling or misleading marketing. The bill restricts yield-generating features, prohibiting the payment of interest or dividends for holding or using stablecoins to prevent disguised wealth management. It grants holders priority claims on reserve assets, ensuring preferential redemption in bankruptcy scenarios. The GUNIUS Act clarifies the legal attributes and regulatory scope of stablecoins, providing the market with a stable and predictable compliance framework. This marks a significant step forward in U.S. regulation, moving from fragmentation toward unification.

2.2 Objectives of Categorization Standards and Unified Regulatory Framework Development—European Union

Prior to the EU's Markets in Crypto-Assets Regulation (MiCA), member states maintained divergent regulatory standards for cryptocurrencies, resulting in long-standing regulatory fragmentation at the EU level. Given the borderless nature of crypto-assets, national-level regulation alone proved insufficient to protect the EU

^[32] GENIUS Act, Sections 3–5, 12 U.S.C. §§5902–5904; Section 6(b)(1)–(2), 12 U.S.C. §5905.

^[33] GENIUS Act, §5(c)(1)–(5), 12 U.S.C. §5904; §7(a)–(b), 12 U.S.C. §5906.

^[34] GENIUS Act, §8(b)(1)–(2), 12 U.S.C. §5907; §9(a)–(c), 12 U.S.C. §5908.

^[35] GENIUS Act, §8(b)(1)–(2), 12 U.S.C. §5907; §9(a)–(c), 12 U.S.C. §5908.

Single Market and maintain regional financial stability. Consequently, the EU introduced unified legislation to harmonize member states' fragmented cryptocurrency rules and establish a consolidated regulatory framework.

As part of the EU's Digital Finance Strategy, MiCA aims to balance technological innovation with investor protection and risk prevention. On one hand, the regulation comprehensively covers crypto asset issuers and service providers under supervision, enhancing transparency and preventing market abuse and illegal activities. On the other hand, it fills legal gaps to address systemic risks potentially arising from cross-border financial activities, ensuring the smooth operation of the Single Market. MiCA establishes a tiered regulatory system for stablecoins, centered on the core concepts of Electronic Money Tokens (EMT) and Asset-Referenced Tokens (ART).^[36] EMTs are pegged to the value of a single fiat currency, serving as digital substitutes for legal tender. ARTs, meanwhile, are pegged to the currencies of one or more countries, other assets, or a combination of values, falling under the broader category of stablecoins but excluding EMTs. The regulation requires issuers to establish an entity within the EU and obtain authorization before publicly issuing or applying for listing. For ART issuance, entities beyond banks and other credit institutions must obtain regulatory approval from the competent authority in their jurisdiction of registration. EMT issuance is restricted to electronic money institutions licensed under the E-Money Directive or banks. Third parties providing stablecoins or facilitating transactions within the EU must obtain written consent from the issuer and fulfill disclosure obligations; failure to do so constitutes a violation.^[37]

MiCA imposes prudential oversight and disclosure requirements on stablecoin issuers. For both ART and EMT, issuers must prepare a white paper detailing the issuing entity, token characteristics, issuance conditions, holder rights, and technical architecture. Stablecoin white papers must also specify the type and composition of reference assets, value stabilization mechanisms, reserve management policies, holder redemption rights, and risk factors, and be submitted to competent authorities for approval or filing. ART issuers must establish a reserve asset pool at least equal in value to the tokens issued, with assets covering reference asset volatility risks and ensuring redemption liquidity.^[38]

To enhance holder protection, MiCA mandates that reserve assets be legally and operationally segregated from the issuer's proprietary assets, remaining separate from the issuer's bankruptcy estate to prevent issuer debt risks from affecting reserve assets. Investment and liquidity of reserve assets are also subject to regulatory constraints. The regulation authorizes bodies like the European Banking Authority (EBA) to develop technical standards specifying liquidity requirements and investment

^[36] Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, OJ L 150, 9.6.2023, Art. 3(1)(6)–(7), 15, 36.

^[37] Articles 15, 16, 19, 21, 36, 45 of the Markets in Crypto-Assets Regulation: Articles 16 and 19 require stablecoin issuers to establish a legal entity within the EU and obtain authorization from competent authorities before publicly issuing or applying for listing; Articles 15 and 21 stipulate that non-bank entities must obtain an issuance license from the competent authority of their Member State under MiCA to issue ARTs; Article 36: Only electronic money institutions licensed under the E-Money Directive or banks may issue EMTs. Article 45: Third parties wishing to offer ARTs or EMTs to the public within the EU must obtain written consent from the issuer and fulfill disclosure obligations; failure to do so constitutes a violation.

^[38] Articles 6–8, 17, 30, 37 of MiCA: Articles 6–8 and 17 establish whitepaper disclosure obligations; Article 30 sets reserve requirements for ARTs; Article 37 applies to EMT whitepapers and reserve requirements.

restrictions for reserve assets. Examples include mandating minimum proportions of highly liquid assets in reserves and capping deposit concentration levels to ensure reserves remain readily available for redemption. Additionally, issuers must regularly disclose reserve status to the public and regulators, including monthly publication of the composition and value of reserve assets. Every six months, they must commission independent audits to examine reserves; audit reports must be promptly submitted to competent authorities and publicly disclosed to facilitate market oversight.

MiCA grants all stablecoin holders a statutory redemption right, ensuring they can exchange their tokens for equivalent assets as agreed. ART holders may request redemption from the issuer at any time, and the issuer must settle the corresponding amount in fiat currency based on the market value of the underlying assets referenced by the token, or directly deliver the equivalent physical underlying assets to the holder. EMT holders similarly possess an on-demand redemption right. Issuers must settle EMT at par value using the pegged fiat currency on a 1:1 basis and may not refuse redemption requests. Issuers must specify redemption terms and procedures in their whitepapers, including the redemption timeframe, settlement methods, and operational measures to ensure settlement under both normal and stress scenarios.

MiCA grants holders a statutory redemption right, ensuring assets can be exchanged for equivalent value as agreed. ART holders may request redemption at any time, with issuers settling in fiat currency at market value or providing equivalent physical reference assets; EMT holders may also redeem at 1:1 face value, and issuers may not refuse. Redemption must be free of charge. Concurrently, issuers must maintain minimum capital reserves to enhance risk resilience: ART issuers require at least €350,000 or 2% of reserve assets plus one-quarter of the previous year's fixed expenses, whichever is greater. EMT issuers must comply with the E-Money Directive's capital and operational requirements, with higher capital thresholds for significant EMTs.^[39]

Issuers must establish robust governance and internal control mechanisms, including board and executive responsibilities, risk management, internal control processes, and consumer protection measures. They must develop token stability mechanism policies detailing the anchoring assets, reserve management, issuance/redemption procedures, and contingency measures. Regulations prohibit offering interest or other economic benefits to holders to prevent stablecoins from disguised deposit-taking.

MiCA introduces a "significant" classification threshold (Significant ART/EMT), applying differentiated regulation to stablecoins exceeding user size and transaction volume thresholds (e.g., over 10 million holders, over 2.5 million daily transactions, or average daily transaction value exceeding €500 million). Significant stablecoins fall under direct EBA oversight, requiring higher capital and liquidity reserve requirements, dedicated liquidity risk management policies, and regular stress testing. Tokens may be held by multiple custodians to mitigate concentration risk. The ECB may issue binding negative opinions on significant stablecoin business models, compelling competent authorities to deny authorization or impose restrictions.

^[39] Articles 32, 35, 44, 45 of the Crypto-Asset Markets Regulation: Articles 32 and 44 mandate that stablecoin redemptions must be conducted free of charge, prohibiting issuers from charging fees; Articles 35 and 45 require issuers to maintain minimum levels of own funds to enhance risk resilience.

Overall, MiCA comprehensively incorporates stablecoins into the financial regulatory framework through a unified approach, emphasizing functional regulation and risk management. Under the principle of technological neutrality, it focuses on stablecoins' functional attributes rather than underlying technology, achieving "equal treatment" in regulation. Regardless of technical mechanisms, any stablecoin that anchors to a specific value and claims value stability falls under MiCA's strict regulatory scope as either an Electronic Money Token (EMT) or an Asset-Backed Token (ART).

2.3 Establishing a Licensing Governance and 100% Reserve Custody Regulatory Framework—Hong Kong

In May 2025, the Hong Kong Legislative Council passed the Stablecoin Ordinance, establishing a licensing regime for issuers of fiat-pegged stablecoins in Hong Kong. This legislation marks a milestone in refining Hong Kong's regulatory framework for local digital asset activities. It aims to safeguard monetary and financial stability, reinforce Hong Kong's position as an international financial center, and foster financial innovation and the healthy development of the stablecoin ecosystem under regulatory oversight. The legislative process drew extensively from the 2023 "Global Regulatory Framework for Crypto-Asset Activities" issued by international organizations such as the Financial Stability Board (FSB). It embodies the regulatory principle of "same activities, same risks, same regulation." Overall, the Stablecoin Ordinance embodies Hong Kong regulators' "risk-based, prudent yet flexible" approach. It addresses international regulatory concerns about systemic risk while reserving ample compliance space for future stablecoin and digital asset innovation.^[40]

The Regulation primarily targets stablecoins pegged to fiat currencies, defining "specified stablecoins" as crypto assets anchored to a single or basket of official currencies and operating on distributed ledger or similar technologies. Algorithmic stablecoins and commodity-backed stablecoins fall outside its regulatory scope. Upon the Ordinance's enactment, any institution issuing fiat-pegged stablecoins for Hong Kong operations, or those issued overseas but claiming to be pegged to the Hong Kong dollar, must apply for a license from the Monetary Authority. The Monetary Authority may designate overseas institutions as regulated entities to ensure cross-border stablecoins fall under regulatory oversight. Providing stablecoins to the public without a license constitutes an illegal act.

The Regulation establishes a stringent licensing framework, permitting issuance only by Hong Kong-registered companies or approved overseas institutions holding licenses. Applicants must meet high prudential standards, including minimum paid-up capital and internal governance reviews. A core requirement is the 100% reserve system: the market value of reserve assets must not fall below the total amount of stablecoins in circulation. These assets must be high-quality, highly liquid (cash, bank deposits, government bonds, and compliant money market funds) and segregated from the issuer's other assets. This ensures holders' rights remain unaffected in cases of bankruptcy or debt disputes. Risk management policies must also be established to guarantee timely fulfillment of redemption requests.

The regulations impose stringent compliance requirements on controlling persons, directors, senior executives, and stablecoin managers, with senior executives requiring

^[40] See Financial Stability Board, *Global Regulatory Framework for Crypto-asset Activities*, Financial Stability Board, 2023.

MAE approval. Licensed institutions must establish price stabilization mechanisms and redemption arrangements to ensure holders can redeem at par value, while implementing anti-money laundering and counter-terrorist financing measures, including customer due diligence and suspicious transaction reporting. Regarding disclosure, licensees must publish white papers detailing issuance mechanisms, reserve backing, redemption procedures, holder rights, and underlying technology architecture. The HKMA may specify content and format requirements.

For auditing, licensed issuers must regularly commission independent audits to ensure reserve assets are transparent and compliant, and submit to regulatory inspections. For cross-border operations, compliance plans must be developed to secure licensing in all jurisdictions and adhere to local laws. Through these systems, the Stablecoin Regulation establishes a comprehensive framework covering legal definitions, licensing, reserve custody, operational obligations, information disclosure, and cross-border supervision. This ensures the safe and transparent issuance of stablecoins while providing a stable environment for digital asset innovation.

3. Pathways for China's Stablecoin Regulatory Framework

3.1 The Regulatory Logic of Domestic and International Coordination

As an auxiliary payment tool for the sovereign currency, the Renminbi stablecoin remains fundamentally part of the state-issued legal tender system and must be incorporated into unified national monetary regulation. According to Georg Friedrich Knapp's "State Theory of Money," currency fulfills its functions as a measure of value and medium of exchange in society due to the coercive power and public credit of the state, not its intrinsic commodity attributes. Keynes similarly noted in his "Monetary Reform" that the essence of modern money lies in the state's authority to define its issuance and acceptance scope. Thus, RMB-denominated and settled stablecoins, though appearing as novel digital instruments, ultimately derive their value stability and social acceptance from state credit backing and legal regulatory constraints. They cannot be regarded as "independent currencies" operating outside the legal tender system.^[41]

Whether issued domestically or internationally, RMB-pegged stablecoins must comply with unified Chinese regulation. Allowing regional autonomy in rule-making would lead to fragmented oversight, policy arbitrage, and undermine state control over money supply, cross-border capital flows, and foreign exchange security—while also damaging the RMB's unity and legal tender status. To preserve the core monetary attribute of "universal equivalence," issuance and circulation must be regulated through the central bank or a unified authorized institution, with no room for regional autonomous oversight. While Hong Kong possesses advantages in financial innovation, it lacks constitutional authority to independently regulate RMB stablecoins. Their issuance must comply with national laws and regulations, aligning with mainland oversight to ensure the integrity of the RMB's monetary sovereignty and legal tender status.^[42]

3.2 Regulatory Framework Design for Renminbi Stablecoins

Regulation of RMB stablecoins must be grounded in the theory of national monetary

^[41] Georg Friedrich Knapp: *The State as a Monetary Authority*, translated by Li Lili, Commercial Press, 2023 edition.

^[42] Yang, D., & Chen, Z. L. (2020). Research on the positioning and nature of legal digital currency. *Journal of Renmin University of China*, (3), 108–121

sovereignty, adhering to the principle of "unified oversight with coordinated domestic and international management." Against the backdrop of rapid digital finance development, only by integrating RMB stablecoins into the comprehensive framework of the national monetary system can their innovative potential in cross-border payments and the digital economy be harnessed while avoiding monetary sovereignty risks stemming from decentralization and privatization.

China should impose stringent capital and reserve requirements on stablecoin issuers. Given that stablecoin profits primarily derive from the utilization of reserve funds, issuers may be driven by "over-issuance" and "scale impulses" to expand issuance for short-term gains, thereby increasing systemic risks. While Hong Kong's Stablecoin Ordinance establishes minimum capital requirements, it lacks dynamic constraints linked to issuance scale. China can draw on Basel Accords principles by introducing capital adequacy ratios, requiring issuance scale to be proportional to capital and highly liquid reserves to ensure risk tolerance aligns with market expansion. Reserve asset management is equally critical: 100% full reserves represent only the minimum threshold. Concentration in high-risk or illiquid assets renders even fully covered reserves vulnerable to run pressures. Regulators should clearly define the scope of reserve assets for RMB stablecoins, including central bank bills, government bonds, and policy financial bonds, while setting upper limits on asset allocation ratios to prevent liquidity mismatches from holding excessive single-asset concentrations. Concurrently, regular disclosure and independent audit mechanisms must be established to ensure reserve transparency and traceability, guarding against trust crises triggered by fraudulent reserves.^[43]

Legislators should strictly define the business scope and operating models of RMB stablecoin issuers. Stablecoins are fundamentally payment instruments, not financing or investment tools. If issuers engage in cross-border lending, wealth management, or derivatives trading, it not only blurs their payment function but may also divert reserve funds into high-risk operations, creating systemic risks. Therefore, issuers' operations should be confined to stablecoin issuance, redemption, custody, and essential liquidity management. They must not utilize reserve funds for external lending or related-party transactions. During the transition phase, a limited number of licensed financial institutions may be permitted to explore restricted applications through regulatory sandboxes, but only under stringent prudential oversight and robust disclosure mechanisms.^[44]

Stablecoins should primarily serve cross-border payments, supply chain finance, and blockchain scenarios, leveraging their institutional advantages in cross-border settlement and value interconnection. Within the Belt and Road framework, RMB-pegged stablecoins can support RMB internationalization and reduce overseas enterprises' reliance on USD clearing. However, unrestricted expansion of their scope should be avoided in the initial phase to prevent disrupting existing payment systems and monetary policy. Regulators should progressively expand applications based on market maturity and risk tolerance—from cross-border micro-payments to trade settlements, then to compliant capital market applications—ensuring a controlled and monitorable development path.

^[43] Li, S., & Qu, M.H. (2022). Constructing the legal order for international regulation of digital currencies. *Law Review*, (4).

^[44] Yang, Y.C. (2020). On the legal attributes of digital currency. *Social Sciences in China*, (1), 84–106.

4. Conclusion

Legal regulation of stablecoins should adhere to international standards of "same risks, same rules, technology neutrality, and cross-border cooperation." Centered on the synergy between functional and prudential regulation, it should adopt a combination of licensing requirements, full high-liquidity reserves, redeemability guarantees, and disclosure obligations, supplemented by hard constraints on anti-money laundering/counter-terrorist financing, governance, and auditing. In terms of implementation roadmap, insights can be drawn from the EU's MiCA classification and tiering system with differentiated requirements for major stablecoins, the U.S. federal legislation's unified framework for payment-type stablecoins with prioritized user rights protection, and Hong Kong's supervisory philosophy centered on "one coin, one license + 100% reserve custody." Within China's context, we must uphold the bottom-line thinking of RMB monetary sovereignty and financial security. This entails establishing a complementary "central bank digital currency (CBDC) – compliant stablecoin" dual-track framework, implementing unified regulatory rules for both domestic and international operations, clarifying issuer qualifications and dynamic capital-liquidity constraints, specifying reserve asset types, maturity periods, and concentration limits, establishing mandatory whitepaper disclosure and independent audit mechanisms, and develop stress testing and contingency plans. Regulatory sandboxes should facilitate prudent pilot programs following a "limited scenarios—phased rollout—quantifiable assessment" approach. Concurrently, cross-border compliance and information-sharing arrangements must be enhanced to prevent regulatory arbitrage and systemic spillovers. Only by creating a verifiable, enforceable, and iterative institutional loop that balances innovation promotion with risk containment can stablecoins be brought under the rule of law, thereby serving the strategic objectives of supporting the real economy and advancing the internationalization of the renminbi.