Risks and Development of Stablecoins for Settlement

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Abstract: Stablecoins are a type of digital currency that can be pegged to a stable asset in the real economy, such as gold, the euro, or the US dollar, in the virtual world, thus having a certain purchasing power. Due to the high cross-border transaction fees and low efficiency of actual currencies in the increasingly emerging cross-border trade and offshore finance, stablecoins emerged as a solution to these problems. As a key link between traditional finance and decentralized finance, stablecoins have higher cross-border circulation efficiency in cross-border trade, can better adapt to the digital economy, and have traceable transfer trajectories. Although stablecoins have shown great advantages in the above aspects, their dependence on blockchain and other technologies, the mismatch with the existing regulatory framework, coupled with the increased likelihood of implementation, has significantly hindered its adoption in China. Therefore, this paper studies the development space of stablecoins in China from aspects such as policy and application scenarios. By comparing the regulatory approaches and operational models of the United States and Australia, it constructs a stablecoin risk prevention and control system that suits China's national conditions, from improving the regulatory mechanism and promoting the pilot process of stablecoins in the real economy, providing ideas for the use of stablecoins in settlement risks, development, and countering the hegemony of US dollar stablecoins.

Keywords: Stablecoin; Regulatory Approach; Cross-Border Trade; US Dollar Hegemony

1. Introduction

Since the pandemic, the pace of globalisation has slowed, protectionist trade policies have proliferated, and the international payment system has undergone accelerated transformation. At this juncture, stablecoins have progressively supplanted national currencies in cross-border trade, leveraging their distinct advantages of low-cost, high-efficiency settlement. Consequently, the global stablecoin market has expanded rapidly, with governments progressively refining regulatory frameworks governing these assets. Stablecoins are now becoming an integral component of cross-border commerce. In response, Hong Kong China, as a major international trade hub, has implemented a series of measures to align with contemporary trends. In 2013, the People's Bank of China and four other ministries jointly issued the 'Notice on Preventing Bitcoin Risks [1-2], bitcoin is classified as a specific virtual commodity, lacking legal tender status. On 4 September 2017, seven Hong Kong China authorities jointly issued the 'Announcement on Preventing Risks Associated with Token Issuance Financing' [3], classifying token issuance financing as illegal and criminal activities. It prohibits any organisation or individual from engaging in unlawful token issuance financing activities, explicitly forbidding token financing trading platforms from conducting exchange services between fiat currency and tokens. In early 2022, the Hong Kong China Monetary Authority issued a discussion paper on virtual assets and stablecoins, initiating industry and public consultation. The Anti-Money Laundering and Counter-Terrorist Financing (Amendment) Bill 2022 [4] formally came into effect on 1 June 2023; From late 2023 to mid-2024, the HKMA and the Securities and Futures Commission (SFC) conducted thematic consultations, publishing conclusions and conducting partial trials in July 2024. Market reports emerged that companies including Ant Group and JD.com had initiated then suspended plans to issue Hong Kong China dollar-pegged stablecoins. The Hong Kong China Special Administrative Region Legislative Council has formally passed the Stablecoin Ordinance at its third reading, with the legislation taking effect on 1 August. In summary, Hong Kong's stablecoin policy has evolved from exploratory ambiguity to comprehensive prohibition, followed by the commencement of pilot studies in Hong Kong China from 2024. The implementation of stablecoins in Hong Kong will be trialled from 2025. However, multiple risks arising during the application of stablecoins—including technical security concerns, regulatory challenges, and incidents of terrorist financing—have hindered their adoption in China. Taking Hong Kong China as a case study, this paper addresses the existing research gap by providing concrete insights into the implementation pathways for stablecoins in China. It examines the potential of stablecoins to empower Hong Kong's foreign trade through specific application scenarios, while also proposing countermeasures to the hegemonic dominance of US dollar-pegged stablecoins within the global stablecoin ecosystem. The study identifies Hong Kong China as a viable pilot region to develop reliable methodologies for advancing stablecoin adoption across China.

2. Policy Background and Comparative Analysis

2.1 The Current State of Hong Kong's Trade Development and the Advantages of Stablecoins

Figure 1. Comparison of Hong Kong's Exports and Imports

Note: The blue line represents exports, and the yellow line represents imports

As shown in Figure 1, despite the deceleration of globalisation following the COVID-19 pandemic in 2019, the prevalence of trade protectionism, and the resulting impediments to global commerce, both export and import volumes have risen year on year in recent times. Growth rates have shifted from negative to positive, with export trade progressively assuming a significant role in Hong Kong's commercial activities. In the January-August 2025 data, it even accounted for half of the total trade value-a figure that cannot be overlooked.

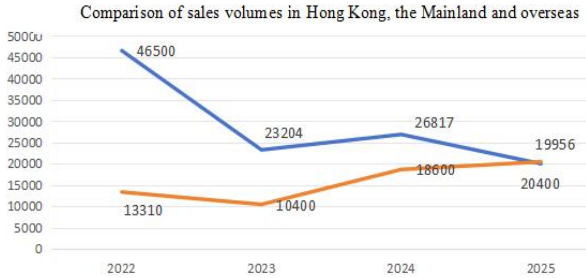

Figure 2. Comparison of Sales Volumes

Note: The blue line represents the mainland, and the yellow line represents foreign countries

Since Teda launched the world's first collateralised stablecoin in 2014, stablecoins have begun to spread and be adopted globally. According to data from organisations such as the Hong Kong China Trade and Industry Department, Hong Kong's main export destinations include the United States, Japan, South Korea, Germany and the Netherlands, all of which have begun to gradually adopt stablecoins for settlement, as shown in Figure 2. Cross-border trade with these countries relies heavily on the SWIFT system, which has over 10,000 financial institution users across 200 countries. This system makes it easy to impose financial sanctions on a country or a specific financial institution; should such an institution impose sanctions on China or its trading partners, it would deal a severe blow to trade.

At the same time, compared to traditional payment methods, the cross-border circulation of stablecoins—driven by the demand for crypto payments—is more efficient. Their decentralised nature enables rapid settlement, with transactions completed within one hour, 24/7 trading support, and transaction fees reduced to below 0.1%, making them better suited to the digital economy; they enable automated reserve management through the application of blockchain technology; and they eliminate the need for traditional hardware devices for transfers, thereby reducing costs; Transaction trails are traceable, ensuring greater transparency; reserve reports are disclosed regularly, and every transaction is recorded on an immutable public ledger. To facilitate the conduct of export trade, Hong Kong China should, at this stage, adopt stablecoins as a payment instrument for cross-border payments.

2.2 Conditions for the Development of Stablecoins in Hong Kong China

Hong Kong China possesses the necessary technical capabilities, legal framework and practical applications for the development of stablecoins. As a major global trade hub, Hong Kong China has a strong demand for cross-border payments. However, traditional payment methods struggle to meet Hong Kong's trade needs due to issues such as inefficiency; China is gradually relaxing its regulations on stable coins, and advanced scientific and technological capabilities can support their development.

1) From a legal perspective, the Hong Kong China Legislative Council passed the Stablecoin Ordinance on 1 August 2025, which serves as the core legal framework for the use of stablecoins in Hong Kong China. In December 2023, the Hong Kong China Monetary Authority (HKMA), in conjunction with the Financial Services and the Treasury Bureau, published a consultation paper setting out the proposed framework. This stipulates that issuers of fiat-backed stablecoins and those engaged in other stablecoin-related activities designated by the Monetary Authority must apply for a licence from the HKMA. They must have a physical presence in Hong Kong China with appropriate management in place, and licence holders must establish effective stabilisation mechanisms, as well as comply with relevant risk management measures and anti-money laundering and counter-terrorist financing measures. Furthermore, Hong Kong China requires that only fiat-pegged stablecoins issued by licensed issuers may be sold to retail investors. In December 2025, the Hong Kong Financial Services and the Treasury Bureau and the Securities and Futures Commission jointly published a consultation summary on legislative proposals to establish a regulatory regime for virtual asset trading and custody service providers. The Hong Kong China Treasury Bureau and the Hong Kong China Securities and Futures Commission are also working on a regulatory framework for service providers offering advice on virtual assets and virtual asset management service providers, with the aim of submitting a draft bill to the Legislative Council within this year. Currently, the Hong Kong China Monetary Authority plans to select 3–5 companies from the 36 applicants to grant licences in March 2026, marking the first step in the implementation of stablecoins in Hong Kong China.

2) To ensure the stable operation of stablecoins in Hong Kong China, the Hong Kong Monetary Authority (HKMA) and the Bank of Thailand completed the 'Inthanon-LionRock Project' in December 2019, adding a new dimension to the use of distributed ledger technology (DLT) by central banks in cross-border fund transfers. Sifang Jingchuang participated in the Hong Kong Monetary Authority's 2024 'Sandbox' initiative for stablecoin issuers, which provided a testing environment for institutions in Hong Kong China seeking to issue fiat-collateralised stablecoins, thereby promoting the compliant development of stablecoins. Standard Chartered Bank, Anmi Group and Hong Kong Telecom collaborated to develop the Hong Kong dollar-pegged stablecoin HKDG, with Standard Chartered providing fund custody, Anmi responsible for contract development, and Hong Kong China Telecom handling payment integration, thereby setting a precedent for the application of Hong Kong dollar-pegged stablecoins.

3) As the first port of entry for foreign investment into the Chinese market, the Hong Kong Special Administrative Region Government proactively assists enterprises in expanding their global footprint. It has signed free trade agreements with 21 economies and investment agreements with 33 economies, and is actively seeking to join the Regional Comprehensive Economic Partnership (RCEP), the world's largest free trade agreement, with a view to breaking down trade barriers. Hong Kong's extensive trade network provides a solid foundation for the implementation of stablecoins. For instance, cross-border payments represent one of the core application areas. Aide Finance and Zhongnong Rongxin have partnered in the supply chain and trade finance sectors, focusing on cross-border trade settlement for agricultural enterprises. By utilising stablecoins, they address issues such as slow settlement times and high transaction fees associated with traditional methods, thereby enhancing transaction efficiency; In the capital markets and investment sector, applications span niche areas such as fixed income and investment funds, exemplified by landmark projects like Harvest International's tokenised fund and HSBC's Gold Token (GTP); they also provide support for virtual asset trading, such as Ed Finance offering liquidity and settlement services for stablecoin transactions on licensed platforms; Green and sustainable finance is another key area of application, with projects such as RWA and the tokenisation of

China's carbon neutrality and carbon assets emerging. By integrating with the real economy, these initiatives facilitate the tokenisation of green assets, thereby streamlining the circulation and financing of related assets; Participating institutions in the regulatory sandbox have also explored the application of stablecoins in Web3 and the gaming sector. Leveraging their convenience and low-cost nature, these solutions have improved the efficiency of small-value transactions and virtual item settlements for such enterprises.

2.3 Comparison of Stablecoin Applications in Hong Kong China and Overseas

The primary use cases for Hong Kong China stablecoins are currently concentrated in the financial sector, led by Hailian Jinhui. The transaction process at Hailian Jinhui generally involves registering an account to obtain JD-HKD, linking a digital wallet to e-commerce platforms such as JD.com, completing identity verification, and then submitting an order and paying with the stablecoin; simultaneously, the payment request is synchronised to Hailian Jinhui's cross-border payment system. Once the blockchain node receives the information, the payment system connects to the SWIFT and CIPS networks, with verification and settlement completed within 10 seconds; Upon successful payment, the system automatically records the transaction. By utilising JD's stablecoin interface, transactions can now handle volumes in the millions, with processing times reduced to 10 seconds and transaction fees cut by 70%. In the first quarter of 2025, the pilot programme exceeded 200 million yuan in scale. By participating in the Multilateral Central Bank Digital Currency Bridge project, cross-chain interoperability between the Digital Renminbi and the Hong Kong dollar stablecoin was achieved, enabling transactions to be completed in a matter of minutes. Hailian Jinhui's offline scenarios cover cross-border e-commerce platforms such as SHEIN; through collaboration with HarmonyOS, it has become the physical medium for the offline circulation of stablecoins, securing 200,000 orders in the Southeast Asian market.

The model in countries such as Australia differs significantly from that in Hong Kong China; let us take JOC, an Australian exporter of meat and agricultural products, as an example. The application process for Australian logistics companies generally involves issuing an electronic bill of lading on the TradeGo platform. JOC's sales representatives then lock the bill of lading into a smart contract and initiate a financing request; once the contract conditions are met, the stablecoin is credited instantly. Upon the goods' arrival at the port, JOC repays the stablecoin to redeem the electronic bill of lading, whilst the buyer settles the balance and completes the collection of goods. Although both utilise the smart contract model, JOC employs an electronic bill of lading system. Compared to the supply chain model relied upon by Hailian Jinhui, this approach facilitates more timely information sharing and easier traceability of transaction records. Stablecoin transactions could draw inspiration from this model to explore the application of stablecoins in a wider range of real-economy sectors.

In the United States, the model is primarily based on banks issuing stablecoins, such as Custodia Bank's Avit. Customers open US dollar current accounts with VantageBank, and the bank issues stablecoins based on these deposits. In 2020, Custodia Bank received approval from the Wyoming Banking Commission to operate as a special-purpose depository institution, and the Avit stablecoin was incorporated into the bank's business plan from that point onwards. Customers transfer Avit to their own wallets and complete transactions on the Ethereum mainnet (bypassing the banking system); Custodia Bank monitors on-chain transactions via the Avit management system to ensure compliance with anti-money laundering requirements. When customers transfer Avit back to the bank, the system automatically converts it into US dollars.

Table 1. Comparison of Operational Models between Hong Kong China and Overseas Countries

	Regulatory model	Scenario focus	Operating model
Hong Kong China	Licensed and regulated by the Hong Kong China Monetary Authority	The sectors are diverse,ranging from cross-border payments and supply chain finance to green finance, Web3 and asset tokenisation, amongst others	A wide range of stakeholders, including banks and technology companies such as Standard Chartered and JD.com
Australia	In accordance with the Digital	Focusing on international trade	With the enterprise at the

	Assets Guidelines, businesses must meet a net tangible asset threshold of AUD 10 million; those offering financial products must hold a financial services licence.	in commodities, we have established a process comprising 'electronic bill of lading pledge-stablecoin lending-repayment and release of the bill of lading'	centre, JOC has partnered with the TradeGo platform, funding providers and Web3 payment service providers to establish a relatively mature trade process.
America [6]	A dual 'federal–state' regulatory framework is in place, whereby banks are regulated by the Federal Reserve and similar bodies, whilst non-bank institutions must apply for either a federal or state licence.	Focusing on the tokenisation of bank deposits, whilst supporting the on-chain extension of the US dollar and facilitating compliant transactions between financial institutions	Banks play a central role; for example, Custodia Bank has partnered with Vantage Bank to enable the tokenisation of bank deposits and on-chain self-custody transactions.

Although there are differences in the operational methods and regulatory frameworks of stablecoins across different countries, the three share many common features, as shown in Table 1. They are all pegged to fiat currencies and maintain sufficient reserves; they adhere to a 1:1 issuance and redemption ratio and ensure adequate reserves, relying on reserve assets to maintain value stability; they are frequently used in cross-border payment and trade-related scenarios, with stablecoins addressing the issues of slow settlement and high costs associated with traditional cross-border transactions; they strictly adhere to legal boundaries and take regulatory requirements seriously, firmly opposing money laundering and terrorist financing.

Based on the primary platforms and operational characteristics of stablecoins in various countries, we can identify the market and political environments required by different types of enterprises, as well as the measures needed to mitigate risks. Drawing on this experience, it appears that the following types of enterprises may be better suited to entering the Hong Kong China market. Traditional financial institutions, for instance, possess substantial capital strength, a broad customer base and extensive risk management experience, and can utilise stablecoins to expand into areas such as cross-border payments and digital asset trading; technology and internet companies can integrate stablecoins into their own business scenarios to drive the adoption and widespread use of stablecoins, with Ant Group leveraging Alipay's cross-border network and 'Belt and Road' cooperation scenarios; Payment and technology service providers, with their extensive experience and technical capabilities in payment technology and cross-border payments, can offer technical support and services for the issuance, clearing and settlement of stablecoins; licensed virtual asset trading platforms, including OSL Digital Securities and others, possess financial licences and client bases that enable them to conduct stablecoin-related advisory services. They are particularly well-suited to Hong Kong's current environment, where licence registration has recently opened and the use of stablecoins is being actively explored, thereby providing clients with a wider range of investment options and services.

2.4 Proposed Solutions to the Dominance of US Dollar-pegged Stablecoins

However, US dollar-pegged stablecoins still dominate the global market today. But what implications does this have for us? Currently, over 99% of stablecoins issued worldwide are backed by the US dollar and its assets [7]; from this perspective, stablecoins can effectively be regarded as a digital form of the US dollar. This facilitates the consolidation of the US dollar's global hegemony, further expanding the scope of its use and thereby reinforcing its position in global payments and financial transactions. Consequently, the significant reduction in the cost of cross-border capital flows will cause global capital to concentrate further in the United States. Should issues such as insufficient reserves arise at this point, it could easily trigger market turbulence, financial losses, and result in reduced orders and rising costs; Enterprises in other regions are also beginning to use US dollar-pegged stablecoins, which are difficult to regulate under traditional regulatory frameworks. This can easily lead to capital flight from local economies and makes it even harder to break through the barriers created by the US dollar; these stablecoins have also become emerging buyers of US Treasury bonds. In 2024 alone, US dollar-pegged stablecoins purchased nearly $40 billion in short-term US Treasury bonds [8], exceeding the volume purchased by most foreign buyers; At the same time, the market capitalisation of stablecoins will continue to grow, and demand for investment in US Treasury bonds will also increase. Consequently, the financing pressure on US enterprises will be alleviated, potentially trapping the US in a vicious cycle of borrowing; should a concentrated sell-off occur, it would trigger a severe financial crisis. Once debt issues escalate, this international monetary system centred on the US dollar will collapse, and the resulting instability will have a profound impact on international financial security.

Consequently, to safeguard our national monetary sovereignty, we should issue stablecoins, and the central bank's initiatives will play a significant role in this process. As the mainstay of China's foreign trade and the embodiment of the state's will, state-owned enterprises occupy a pivotal position in international trade and cross-border payments, and are a key driving force behind the internationalisation of the renminbi and the adoption of stablecoins.

China should expand the scope of application scenarios, prioritising pilot schemes for stablecoin settlement in sectors where US dollar-pegged stablecoins are prevalent, such as cross-border trade and cross-border e-commerce. At the same time, it should step up cooperation with regions where US dollar-pegged stablecoins have penetrated deeply, such as Southeast Asia and Africa, to secure a foothold in the market. Drawing on the experience of Sinochem Group and China Merchants Group, China should utilise Hong Kong as an offshore hub for digital currency bridge services, collaborating with countries such as Thailand and the United Arab Emirates to gradually replace the settlement functions of US dollar-pegged stablecoins in cross-border trade. Building on the foundation for stablecoin development established in Hong Kong China, central state-owned enterprises (SOEs) could partner with licensed Hong Kong China institutions to explore the tokenisation of physical assets such as commodities and supply chain assets; Establish a monitoring system for USD-pegged stablecoin transactions to reduce instances of non-compliant use of such stablecoins for fund transfers across various operational stages within their subsidiaries; SOEs could collaborate with the Hong Kong China Monetary Authority and local licensed financial institutions to facilitate the adoption of Hong Kong-based stablecoins in the local market, thereby curtailing the regulatory dominance of USD-pegged stablecoins.

3. Policy Recommendations Regarding the Risks Associated with Stablecoins

In terms of risks, stablecoins rely on blockchain technology and are therefore vulnerable to cyberattacks, which can result in financial losses; the stability of the blockchain may also affect transaction efficiency; there may be doubts regarding the transparency of reserves, and the low level of bank deposit-type assets and poor liquidity could lead to redemption difficulties or the misappropriation of reserve funds; they facilitate money laundering and terrorist financing; the unregulated circulation of stablecoins may cause exchange rate and financial instability; enterprises must not make false claims to mislead investors. The basic positioning of stablecoins as payment tools should be adhered to, strictly limiting them to being payment tools rather than investment products or substitutes for currency, and clearly distinguishing them from investment tools and credit creation tools.[5]

In terms of regulatory measures, policy support will drive the iterative advancement of technologies such as blockchain and smart contracts; licensing requirements and sandbox testing will be utilised to ensure safety prior to deployment; a multi-party regulatory mechanism will be established to enhance transparency, the redemption system will be improved to increase efficiency, and issuers will be required to hold reserve funds in separate accounts subject to regular audits; A real-name registration system is implemented to record the entire transaction process and associated information, ensuring the transparency and traceability of fund flows; the licensing system is used to regulate issuers, with dynamic oversight applied to issuance volumes and circulation scope; disciplinary mechanisms for non-compliance are strengthened, with licences revoked and criminal liability pursued in cases of illegal activities such as false advertising, thereby safeguarding the legitimate rights and interests of investors.

4. Conclusion

Hong Kong's trade needs and conditions align well with the characteristics of stablecoins; at the same time, robust technological infrastructure, legal support and practical use cases have facilitated the development of stablecoins in Hong Kong China. If, in the future, suitable enterprises—identified through comparison with those in other countries—can be introduced, Chinese stablecoins will mitigate the dominance of US dollar-pegged stablecoins, safeguard the country's monetary sovereignty, accelerate the adoption of stablecoins in China and lead the global development of stablecoins.

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