Transactions on Economics, Business and Management Research
ISSN: 2960-1789, eISSN: 2960-2254 | Volume 18
GEBM 2026

The Linked Exchange Rate System and FinTech Development: Synergistic Evolution of Hong Kong's International Financial Centre Status

Ziyi Xu *

Harbin Engineering University A-level International Curriculum Centre, Harbin, China

* Corresponding Author Email: xzy20070529@qq.com

Abstract. As a leading global international financial centre, Hong Kong's financial system is anchored by the Linked Exchange Rate System (LERS) established in 1983. Characterized by 100% US dollar reserve backing and the Convertibility Zone of 7.75 to 7.85 Hong Kong dollars per US dollar, this system has provided monetary and financial stability for Hong Kong for over four decades. Concurrently, in response to the global digital economy wave, Hong Kong has accelerated its FinTech development in recent years—from the "FinTech 2025" strategy to the newly announced "FinTech 2030" blueprint—aiming to build next-generation data and payment infrastructure and promote financial tokenization. This paper examines the synergistic relationship between the traditional institutional cornerstone of LERS and the emerging developmental impetus of FinTech innovation. The study finds that the exchange rate stability and free capital movement provided by LERS create an ideal experimental environment for FinTech development; conversely, FinTech innovations such as central bank digital currencies (CBDC) and tokenized deposits hold the potential to optimize the operational efficiency of LERS and enhance its resilience in addressing future challenges. The synergistic evolution of these two pillars jointly consolidates and elevates Hong Kong's status as an international financial centre.

Keywords: Linked Exchange Rate System; FinTech; Hong Kong International Financial Centre; Central Bank Digital Currency; Tokenization.

1. Introduction

The choice of exchange rate regime and the pace of financial system innovation constitute two critical dimensions determining the competitiveness of an international financial centre. For a small open economy like Hong Kong, balancing monetary and financial stability while embracing the transformative opportunities brought by FinTech represents a significant task of both theoretical depth and practical urgency.

Since its establishment in 1983, Hong Kong's Linked Exchange Rate System has weathered numerous international financial crises and is widely regarded as the "cornerstone" of Hong Kong's financial stability. As a currency board system, it features two core characteristics: first, the monetary base is fully backed by US dollar assets; second, the Hong Kong Monetary Authority provides strong-side and weak-side Convertibility Undertakings at 7.75 and 7.85 Hong Kong dollars per US dollar respectively. Through this mechanism, the Hong Kong dollar exchange rate remains stable within a predetermined band, eliminating exchange rate risk against the US dollar and providing a predictable monetary environment for international trade and capital flows.

Simultaneously, the global financial system is undergoing profound digital transformation. Since launching the "FinTech 2025" strategy in 2021, the Hong Kong SAR Government and the HKMA have achieved remarkable progress in areas including central bank digital currencies, tokenized deposits, and the Commercial Data Interchange. In November 2025, Hong Kong further announced the "FinTech 2030" strategy, focusing on four key areas: building next-generation data and payment infrastructure, supporting comprehensive industry adoption of artificial intelligence, strengthening operational and technological resilience, and promoting financial tokenization, encompassing over 40 specific initiatives.

Existing research tends to examine the LERS and FinTech development as separate topics, with limited attention to their intrinsic interconnections and interactive mechanisms. This paper attempts to construct an integrated analytical framework of synergistic evolution, arguing that the LERS and FinTech development are not independent but mutually reinforcing and synergistically strengthening. This perspective holds significant theoretical value and practical relevance for understanding Hong Kong's unique developmental trajectory as an international financial centre and envisioning its future evolution.

2. The Linked Exchange Rate System: Institutional Cornerstone of Hong Kong's Financial Stability

2.1. Institutional Evolution and Core Mechanisms

The evolution of Hong Kong's exchange rate system profoundly reflects the adaptive adjustments of a small open economy to the international monetary system. From the silver standard in 1841, the sterling exchange standard in 1935, the floating rate regime in 1974, to the establishment of the LERS in 1983 — each transition embodied Hong Kong's institutional tradition of "anchoring to the top-tier currency of the monetary pyramid."

The establishment of the LERS in 1983 occurred against a special historical backdrop. At that time, the initiation of Sino-British negotiations cast uncertainty over Hong Kong's future, triggering a confidence crisis in the Hong Kong dollar and causing the exchange rate to plummet to a historic low of HK$9.6 per US dollar. To stabilize the currency, the Hong Kong government established the LERS in October of that year, fixing the Hong Kong dollar to the US dollar at HK$7.8 per US dollar, with the entire Hong Kong dollar monetary base fully backed by US dollar foreign exchange reserves.

After years of refinement, the current operational mechanism of the LERS can be summarized as follows: The HKMA provides Convertibility Undertakings, committing to sell Hong Kong dollars and buy US dollars at the strong-side Convertibility Undertaking of HK$7.75 per US dollar, and to buy Hong Kong dollars and sell US dollars at the weak-side Convertibility Undertaking of HK$7.85 per US dollar. When funds inflow the Hong Kong dollar, strengthening the exchange rate to 7.75, the HKMA sells Hong Kong dollars and buys US dollars, increasing the Aggregate Balance and lowering Hong Kong dollar interest rates, thereby returning the exchange rate to within the Convertibility Zone; when funds outflow the Hong Kong dollar, weakening the exchange rate to 7.85, the HKMA buys Hong Kong dollars, reducing the Aggregate Balance and pushing up Hong Kong dollar interest rates, subsequently stabilizing the exchange rate. This automatic interest rate adjustment mechanism ensures the stability of the Hong Kong dollar exchange rate within the preset band.

2.2. Institutional Advantages and Practical Challenges

The core advantages that the LERS brings to Hong Kong can be summarized as follows:

First, eliminating exchange rate risk and consolidating international financial centre status. Hong Kong's core financial businesses are predominantly priced in US dollar-denominated assets. The fixed exchange rate regime significantly reduces transaction costs for capital inflows and outflows, providing a predictable investment environment for global capital. During the 1997 Asian financial crisis, the HKMA successfully repelled international speculators through foreign exchange and stock market operations, fully demonstrating the system's risk resilience.

Second, backing monetary credibility with 100% foreign exchange reserves. The issuance of Hong Kong dollars is supported by equivalent US dollar reserves—an institutional design that ensures the Hong Kong dollar's credibility in international markets, enabling its stable peg to the US dollar and thus integration into the global financial system.

Third, reducing policy intervention costs through automatic adjustment mechanisms. Achieving exchange rate stability through automatic interest rate adjustments avoids frequent policy interventions, allowing market forces to play a dominant role in exchange rate formation.

However, LERS also faces increasingly prominent practical challenges. According to the "impossible trinity" theory, to achieve a fixed exchange rate and free capital movement, Hong Kong must sacrifice monetary policy autonomy, completely following US policy. When the economic cycles of the US and Hong Kong diverge, this institutional arrangement creates significant "policy mismatch." During the 2022-2023 US Federal Reserve rate hike cycle, Hong Kong was forced to raise rates synchronously, increasing local borrowing costs while the Hong Kong economy faced deflationary pressures, with high rates further suppressing domestic demand. Additionally, the Hong Kong dollar's appreciation with the US dollar impacts tourism and exports—in 2024, mainland Chinese tourists accounted for 75% of Hong Kong's total visitor arrivals, with per capita consumption declining by approximately 23% year-on-year.

The debate over retaining or abolishing the LERS thus emerges. Proponents emphasize its role as a "cornerstone" and the infeasibility of alternatives—pegging to the renminbi requires full renminbi convertibility, pegging to a basket of currencies faces operational difficulties, and a free float is vulnerable to international speculative attacks. Reform advocates focus on core arguments including loss of monetary policy autonomy, economic cycle divergence, and people's livelihood cost transfer. The persistence of this debate precisely indicates that the LERS needs optimization while standing, and innovation while maintaining stability.

3. FinTech Development: New Impetus for Hong Kong's Financial System

3.1. From "FinTech 2025" to "FinTech 2030"

Hong Kong's FinTech development has formed a clear strategic path. The "FinTech 2025" strategy launched in 2021 focused on promoting bank adoption of FinTech, cultivating FinTech talent and enterprise development, and building robust financial "hard infrastructure." After several years of implementation, this strategy has achieved remarkable results. As of 2025, Hong Kong has over 1,200 FinTech companies, a 10% increase from 2024; in the Global Financial Centres Index, Hong Kong was rated the world's top FinTech city.

In November 2025, Hong Kong announced the "FinTech 2030" development strategy, marking a new phase in FinTech development. This strategy focuses on four key areas: building next-generation data and payment infrastructure, supporting comprehensive industry adoption of artificial intelligence, strengthening operational and technological resilience, and promoting financial tokenization, encompassing over 40 specific initiatives. HKMA Chief Executive Eddie Yue, in explaining this strategy, stated: "Data is the lifeblood of the digital economy, AI is the engine, resilience is the safety net, and tokenization is the channel. These elements will develop synergistically to build a smarter, more inclusive, more efficient, and safer financial ecosystem for Hong Kong."

3.2. Key Areas and Innovative Practices

In the field of central bank digital currencies, Hong Kong's exploration began in 2017. Through the "FinTech 2025" strategy, related work has progressed from experimentation to practice. The mBridge project interconnects the "digital Hong Kong dollar" with CBDCs from Mainland China, Thailand, and the United Arab Emirates, reducing cross-border transaction processing time from several days to just seconds, entering the minimum viable product stage in 2024.

In tokenization, the Ensemble project launched in 2024 promotes the development of Hong Kong's tokenization ecosystem. This project has collaborated with central banks in Brazil, France, and Thailand on cross-border tokenization use cases, and jointly with the industry, has studied 20 tokenization applications in sandbox experiments. Tokenization technology can transform real-world assets—such as currency and stocks—into instantly tradable digital tokens, vividly described by the HKMA as upgrading from a "highway" to a "smart highway."

In data infrastructure, since its launch in 2022, the Commercial Data Interchange has established partnerships with 26 banks and 17 data providers. As of September 2025, it has facilitated over 71,000 loan applications and reviews, involving total approved credit exceeding HK$58.1 billion. Data coverage has expanded from initial payment and e-commerce records to government data, benefiting numerous SMEs.

In artificial intelligence applications, approximately 75% of Hong Kong's financial institutions have adopted or piloted generative AI, with the SAR Government aiming to increase this proportion to over 87% within the next 3-5 years.

3.3. Institutional Support for FinTech Development

The flourishing of FinTech relies on support from Hong Kong's established institutional advantages. First, the monetary stability provided by the LERS enables FinTech innovation to unfold under predictable macroeconomic conditions. The elimination of exchange rate risk reduces transaction costs for cross-border FinTech applications and enhances the willingness of international technology enterprises and investors to participate in the Hong Kong market.

Second, the robust financial regulatory framework and mature common law system provide clear compliance guidance and effective rights protection for FinTech innovation. Regulatory guidelines for virtual asset trading platforms and sandbox mechanisms for tokenization projects embody a regulatory philosophy of "innovation within regulation, regulation within innovation."

Third, Hong Kong's unique positioning of "backed by the motherland, connected to the world" enables its FinTech development to benefit from both the market scale of Mainland China and the rule alignment of international standards. The joint construction of the Hong Kong-Shenzhen FinTech Centre and the interoperability of cross-border data verification platforms have expanded the space for FinTech applications.

4. Synergistic Evolution: Interaction Mechanisms Between LERS and FinTech

4.1. Institutional Stability Provides Environmental Guarantee for Technological Innovation

The monetary and financial stability provided by LERS is a prerequisite for FinTech innovation. The essence of FinTech is to optimize the efficiency and experience of financial services through technological means, but all this must be built upon users having stable expectations of currency value. If exchange rates fluctuate frequently and currency credibility is impaired, no FinTech application can gain market trust.

Through 100% US dollar reserve backing and Convertibility Undertakings, Hong Kong's LERS eliminates exchange rate risk against the US dollar. This institutional arrangement creates a double dividend for FinTech development: on one hand, it reduces exchange rate uncertainty faced by cross-border FinTech applications, enabling innovators to focus on technological optimization and user experience; on the other hand, it enhances international investors' confidence in Hong Kong FinTech projects, creating more favorable conditions for innovative enterprises to access financing.

4.2. Technological Innovation Holds Potential to Optimize Institutional Operational Efficiency

FinTech innovation, particularly the development of CBDCs and tokenization technology, offers new possibilities for optimizing the operational efficiency of the LERS. This is manifested at the following levels:

First, enhancing cross-border settlement efficiency. Traditional LERS operations rely on multi-tiered bank settlements, with cross-border transactions taking days. The mBridge project interconnects the "digital Hong Kong dollar" with CBDCs from other economies, reducing cross-border transaction processing time to seconds. This efficiency improvement not only benefits trading enterprises but also makes LERS more resilient in responding to cross-border capital flows.

Second, enhancing the precision of interest rate transmission mechanisms. The Ensemble project explores using tokenized deposits for digital asset transaction settlement, with the "digital Hong Kong dollar" serving as the monetary pillar of the ecosystem. Tokenization technology enables more agile fund mobilization and more efficient corporate liquidity management. This efficiency improvement helps optimize the transmission effect of the interest rate adjustment mechanism under the LERS, enabling monetary policy signals to more accurately reflect in the real economy.

Third, enhancing data transparency and risk management capabilities. The implementation of the Commercial Data Interchange and Interbank Account Data Sharing services facilitates cross-institutional data flow with data owner consent. This provides the HKMA with a richer data foundation for monitoring capital flows and assessing exchange rate pressures, enabling earlier risk identification and more precise intervention implementation.

4.3. Synergistic Evolution Consolidates Hong Kong's International Financial Centre Status

The synergistic evolution of LERS and FinTech jointly strengthens Hong Kong's competitiveness as an international financial centre. On one hand, the LERS provides institutional assurance for Hong Kong to win "global capital trust"; on the other hand, FinTech development provides technological support for Hong Kong to gain "future financial discourse power." The combination of the two enables Hong Kong to possess both traditional advantages and innovative vitality in the global financial landscape.

This synergistic effect has gained international recognition. In a recent major international financial centre ranking, Hong Kong topped the FinTech category. This achievement stems from both the solid institutional foundation and foresight FinTech overall arrangement. As HKMA Chief Executive Eddie Yue stated: "Our financial infrastructure is not only at the technological forefront, but its robustness also helps financial markets develop new areas, further establishing and consolidating Hong Kong's position as a leading FinTech hub and international financial centre."

5. Prospects and Challenges

5.1. Integration Prospects of e-HKD and the LERS

The advancement of the "digital Hong Kong dollar" opens new imaginative space for the future development of the LERS. The HKMA plans to complete necessary policy, legal, and technical preparations by the first half of 2026, fully preparing for the potential future expansion of the "digital Hong Kong dollar" to retail applications. The introduction of retail-level "digital Hong Kong dollar" would enable the public to directly hold claims on the HKMA without credit risk, further strengthening Hong Kong dollar credibility.

In the digital currency ecosystem, the operational mechanism of the LERS will require corresponding adjustments. When different forms of tokenized currency—"digital Hong Kong dollar," tokenized deposits, regulated stablecoins—coexist and complement each other, the LERS's Convertibility Undertakings may need to extend to the digital currency domain to adapt to new monetary forms.

5.2. Potential Risks and Response Strategies

The synergistic evolution of LERS and FinTech also brings new risk challenges. First, cybersecurity risks. As the financial system becomes increasingly digitized, the potential harm of cyber attacks also rises. "FinTech 2030" identifies "strengthening operational and technological resilience" as one of four key areas, reflecting foresight response to this risk.

Second, institutional pressure from "de-dollarization" trends. Amid global "de-dollarization" trends, US dollar credibility is questioned, potentially increasing adjustment pressure on the LERS. While FinTech innovation can enhance institutional operational efficiency, it cannot fundamentally resolve this structural challenge. Long term, changes to the LERS will passively depend on the evolution of US dollar hegemony and the progress of renminbi internationalization.

Third, regulatory challenges of cross-border digital currency flows. After CBDC interconnection, the speed and scale of cross-border capital flows will significantly increase, imposing higher requirements on macroprudential supervision. This necessitates enhanced regulatory coordination between the HKMA and other central banks, establishing effective risk monitoring and emergency response mechanisms.

6. Conclusion

The Linked Exchange Rate System and FinTech development constitute the two pillars of Hong Kong's international financial centre status. The former provides monetary and financial stability—the institutional cornerstone for Hong Kong to win global capital trust; the latter injects innovative impetus—the strategic tongs for Hong Kong to seize opportunities in the digital era. Their synergistic evolution enables Hong Kong to possess both stability and vitality in the global financial landscape.

This paper's analysis demonstrates that the LERS creates a predictable macro environment for FinTech development, while FinTech innovations such as CBDCs and tokenization technology hold potential to optimize the LERS's operational efficiency. This mutually supportive and synergistically strengthening relationship epitomizes the unique advantages of Hong Kong's financial system.

Looking ahead, the LERS will remain the core cornerstone of Hong Kong's financial stability, but its operational efficiency requires continuous optimization through FinTech innovation; FinTech development will continue to accelerate but must rely on solid institutional safeguards to ensure ordered innovation. The synergistic evolution of the two will jointly consolidate and enhance Hong Kong's international financial centre status, enabling it to maintain irreplaceable competitive advantages amidst profound transformations in the global financial landscape.

References

[1] Hong Kong Monetary Authority. (2026). Operation of the Linked Exchange Rate System. https://www.hkma.gov.hk/gb_chi/key-functions/money/linked-exchange-rate-system/how-does-the-lers-work/.

[2] Yue, W. W. (2025). Building bridges for Hong Kong's digital economy. HKMA Insight. https://www.hkma.gov.hk/chi/news-and-media/insight/2025/10/20251030/.

[3] Chinamoney. (2026). The debate over retaining or abolishing Hong Kong's Linked Exchange Rate System: History, logic, and future. https://www.sohu.com/a/995926946_522914.

[4] People's Daily Online. (2025). Hong Kong unveils new "FinTech 2030" blueprint. http: // hm.people.com.cn/n1/2025/1125/c42272-40611264.html.

[5] Hong Kong Monetary Authority. (2025). Hong Kong Long-term Investment: Development and Opportunities in the Digital Economy (Report). https://www.hkma.gov.hk/chi/news-and-media/press-releases/2025/09/20250922-4/

[6] Southern Finance. (2025). HKMA studies using tokenization tools to enhance carbon market liquidity. https://www.sfccn.com/2025/9-12/2MMDE0MDZfMjA2Mjc2Mg.html

[7] Hong Kong Monetary Authority. (2025-2026). Research Memorandums. https://www.hkma.gov.hk/gb_chi/data-publications-and-research/research/research-memorandums/.

[8] Financial Services Development Council. (2025). FSDC Releases Annual Report for 2024/25. https://www.fsdc.org.hk/en/media/fsdc-releases-annual-report-for-2024-25-driving-policy-research-and-global-collaboration-to-advance-hong-kong-s-competitiveness-as-a-leading-international-financial-centre.

[9] HKU Business School. (2026). Hong Kong Economic Policy Green Paper 2026. Economic Herald. https://jdonline.com.hk/content_102249.html.

[10] Financial Affairs Committee. (2025). Latest Developments in Green and Sustainable Finance in Hong Kong. http://www.ronickchanchunying.hk