Settlement of tokenised assets

A pilot study examining the incremental benefits, real-world constraints, and consumer attitudes toward tokenised assets using new form of digital money

High-level pilot scope

As part of the Hong Kong Monetary Authority's (HKMA) Phase 2 of the e-HKD Pilot Programme, Standard Chartered, BlackRock, Mastercard, and Libeara partnered to study an end-to-end tokenised fund[1] subscription and redemption process using hypothetical e-HKD, with emphasis on expediting the settlement cycle from T+2 to T+0 through atomic settlement. The use case involves collaboration among various key stakeholders, including distributors, fund issuers, payment network providers and fund tokenisation services providers, to study the potential efficiency gained by using digital money along the value chain.

Benefits of using new forms of digital money for tokenised fund settlement

Through the integration of digital money into the end-to-end tokenised fund lifecycle, the pilot team identified the following key benefits:

1) **Fund Distributors -** e-HKD enables a more flexible use of money for end investors, potentially allowing for T+0 settlement for fund subscriptions and redemptions, reduced from the standard T+2 settlement time frame.

2) **Fund Issuers -** e-HKD enables a better client experience potentially through extended order placement periods, a shorter settlement timeframe, more transparent order status, fractional ownership (to ensure a more precise deployment of their assets), as well as a flexible distribution framework.

3) **Payment Network Providers –** adoption of blockchain technology by payment network providers, such as Mastercard's Multi-Token Network (MTN), enables banks to continue using existing infrastructure to send and receive funds once onboarded. The settlement is near-real time by leveraging e-HKD and other forms of digital money as a settlement instrument for domestic transactions with support of mint/burn processes for fund transfers, achieving scalability across the ecosystem.

4) **Fund Tokenisation Services Providers -** the use of e-HKD eliminates key internal and external complexities associated with the use of forms of digital money backed by fiat, including removing the need to assist with the integration of on-ramp and off-ramp rails , including Day 1 set-up/integration and provision of ongoing technology support for such functionalities

Awareness and readiness of retail investors to new forms of digital money

According to our research[2], 30% of respondents[3] already own some form of digital assets, with high-net-worth individuals (liquid assets ≥ USD 1 million) showing more confidence to diversifying their investments with this asset class. Momentum is building with 76% of respondents considering investing in digital assets in the next 12 months. The demand to include digital assets as part of respondents' investment portfolios is evident and growing paving the way for broader need and adoption of new forms of digital money.

[1] The pilot study examined a theoretical money market fund.
[2] Based on *Hong Kong Affluent Digital Assets Study 2025* results from 527 individual respondents
[3] Survey respondents are from affluent banking population, defined as individuals with liquid assets of HKD 1 million or more

When it comes to the appeals of new forms of digital money (such as e-HKD), respondents shared the below top 3 most consistent and important expectations:

Privacy protection and data security 42% Ensure adequate balance of user privacy and regulatory needs	**Stable pricing** 40% Prevent pricing volatility from affecting public confidence	**Robust legal oversight** 37% Ensure parity with the legal tender status of traditional fiat (HKD) to ensure stability and reliability	**Transactions are compliant and transparent** 37% Transactions are transparent and compliant with regulations

Real world constraints

While the pilot highlights the potential of new forms of digital money for tokenised settlement, the following key practical challenges must be addressed in order to fully realise the benefits:

1. **Continuous valuation –** With end-of-day pricing snapshot being an industry practice for funds, tokenised funds may face challenges with establishing a net asset value (NAV) within the day to enable same-day settlement. Moving from end-of-day pricing to continuous portfolio valuation could help funds adopt same day settlement.

2. **Operational transformation –** Current fund lifecycle activities supported by fund service providers (i.e. fund administrators, transfer agents, trustees, etc.) are built for T+2 settlement and batch processing. Achieving T+0 requires a fundamental redesign of cut-off times, liquidity-risk controls, and cash-flow forecasting. Asset managers must also strengthen governance and risk-management frameworks to accommodate round-the-clock order intake and immediate settlement finality.

3. **Interoperability and network integration –** Atomic settlement depends on common technical and governance standards that enable seamless interaction among fund houses, distributors, tokenisation providers, and payment networks. In particular, cross-border tokenised funds distribution would require a complementary digital money framework that can integrate into traditional infrastructures (e.g., RTGS) and emerging blockchain networks, while also allowing the efficient transfer and settlement of digital money from jurisdictions that could potentially have different regulatory approaches to digital money.

4. **Regulatory alignment and market confidence -** Clear and consistent regulatory guidance on digital-asset custody, settlement finality, and data privacy is critical to provide assurance to both institutions and investors. Asset managers must also navigate cross-border regulatory requirements to ensure that tokenised fund structures satisfy all relevant jurisdictional guidelines.

Summary

Overall, while the potential benefits of tokenised asset trading include accelerating the tokenised fund settlement cycle from T+2 to T+0, enabling continuous, round-the-clock settlement, and fostering stronger investor confidence, these benefits cannot be realised by merely introducing or adopting new forms of digital money. Industry participants (markets, distributors, fund issuers and service providers) also need to address the identified constraints and work collaboratively to transition into a new era of real-time financial markets in Hong Kong and beyond.