

International Financial Centre

During 2022, the HKMA achieved notable progress in strengthening Hong Kong's status as a globally competitive international financial centre through a multi-pronged approach.

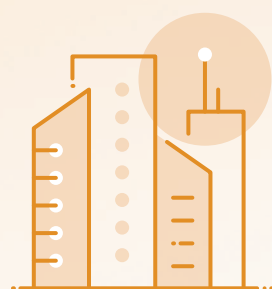
The success of the Global Financial Leaders' Investment Summit, which welcomed over 200 international and regional leaders from around 120 global financial institutions, had reinforced Hong Kong's status as an international financial centre and created positive ripple effects.

On reinforcing Hong Kong's position as a global hub for offshore renminbi business, significant progress was made in a number of areas. These included enhancements to the existing currency swap agreement between the HKMA and the People's Bank of China and subsequent refinements to the HKMA's Renminbi Liquidity Facility, thereby ensuring sufficient renminbi liquidity which is conducive to further offshore renminbi products and market developments; joint announcement with the People's Bank of China and the Securities and Futures Commission on the implementation of Swap Connect, joint efforts with the Securities and Futures Commission and Hong Kong Exchanges and Clearing Limited for the introduction of a Dual Counter Market Making regime to facilitate the trading of renminbi-denominated stocks in Hong Kong, and the HKMA's multi-year programme to further enhance our financial market infrastructure and develop the Central Moneymarkets Unit into a major international central securities depository in Asia. Thanks to ample renminbi liquidity, world-class market infrastructure and the Mainland-Hong Kong Connect schemes, Hong Kong is the favoured platform for Mainland funds to tap into global markets and for international investors to access the fast-growing Mainland markets.

The HKMA also made good progress towards strengthening the competitiveness of Hong Kong's financial platform, in areas including bond issuance, asset and wealth management, corporate treasury centres, and green and sustainable finance. To promote Hong Kong's financial services, the HKMA stepped up market outreach to overseas and Mainland stakeholders to keep them informed about the resilience of Hong Kong's financial system and the prospects it presents.

Meanwhile, the HKMA continued to implement the "Fintech 2025" strategy to promote the wide adoption of fintech by the financial sector and bolster Hong Kong's position as a fintech hub more broadly. The Faster Payment System continued to see steady growth, with the number of registrations exceeding ten million in March and the average daily turnover exceeding one million transactions in September.

As an active member in international and regional central banking and regulatory forums, the HKMA continued to contribute to global efforts in maintaining financial stability and promoting financial market developments.



International Financial Centre

Overview

The HKMA continued its proactive efforts in strengthening Hong Kong's competitiveness as an international financial centre. In November, the HKMA organised the Global Financial Leaders' Investment Summit, which was an initiative announced by the Financial Secretary in his 2022–23 Budget. The three-day event featured prominent financial leaders sharing unique perspectives on navigating through uncertainties while capturing opportunities. The overwhelming responses with over 200 participants from around 120 international financial institutions demonstrated the global financial sector's commitment to Hong Kong.

Hong Kong's position as an offshore renminbi business hub further consolidated, with offshore renminbi businesses registering robust growth during the year. Hong Kong plays an indispensable role in facilitating capital flows between the Mainland and international financial markets, with the Mainland–Hong Kong Connect schemes being widely accepted as the channels of choice for international investors to access onshore capital markets and for Mainland investors to allocate to offshore assets. In 2022, trading under Northbound Bond Connect accounted for 61% of foreign turnover in the China Interbank Bond Market. Southbound Bond Connect and the Cross-boundary Wealth Management Connect (Cross-boundary WMC) have been operating smoothly since launch in 2021. The announcement of Swap Connect further broadened financial co-operation between Hong Kong and the Mainland into the derivatives market and strengthened Hong Kong's status as a key offshore renminbi business hub and risk management centre. The enhancement of the existing currency swap arrangement between the HKMA and the People's Bank of China (PBoC) in July was another important milestone in strengthening Hong Kong's role as an offshore renminbi business hub.

To develop a more diverse range of renminbi-denominated products in Hong Kong, a working group comprising the HKMA, the Securities and Futures Commission (SFC) and Hong Kong Exchanges and Clearing Limited (HKEX) completed a feasibility study on expanding the use of the renminbi in equity trading in Hong Kong. The working group has been taking forward the preparation work, including introducing a Dual Counter Market Making (DCMM) regime to enhance the trading mechanism of Hong Kong dollar and renminbi dual-counter stocks.

The HKMA continued to work on strengthening the competitiveness of Hong Kong's financial platform. In particular, to increase Hong Kong's appeal as a preferred fund management centre, the HKMA worked closely with the Government and the financial industry to provide a more facilitating tax and regulatory environment. Significant progress was also made in promoting innovation in Hong Kong's bond market, and consolidating Hong Kong's position as a regional green and sustainable finance hub. At the same time, the HKMA stepped up market outreach to promote Hong Kong's financial services to overseas and Mainland stakeholders.

The HKMA Fintech Facilitation Office (FFO), together with the banking departments, continued to implement the "Fintech 2025" strategy¹ to promote wide adoption of financial technology (fintech) and strengthen Hong Kong's position as a fintech hub in Asia. The key initiatives implemented during the year included:

- promoting regulatory technology (Regtech) adoption and conducting the Tech Baseline Assessment;
- advancing the work on wholesale Central Bank Digital Currency (CBDC) for improving cross-border payments;
- progressing further in the study on introducing retail CBDC in Hong Kong, i.e. e-HKD;
- launching Commercial Data Interchange (CDI);
- enhancing talent development;
- nurturing the fintech ecosystem with funding and policies;
- strengthening cross-border collaboration in fintech; and
- expanding the adoption of the Faster Payment System (FPS).

¹ Unveiled in June 2021, the strategy aims to encourage the financial sector to adopt technology comprehensively by 2025, as well as to promote the provision of fair and efficient financial services for the benefit of Hong Kong citizens and the economy. The five focus areas of the strategy are: (1) all banks go fintech, (2) future-proofing Hong Kong for Central Bank Digital Currencies, (3) creating the next-generation data infrastructure, (4) expanding the fintech-savvy workforce, and (5) nurturing the ecosystem with funding and policies.

International Financial Centre

Safe and efficient operation of financial infrastructure is fundamental for reinforcing Hong Kong's position as a leading international financial centre. In 2022, the four interbank Real Time Gross Settlement (RTGS) systems, the Central Moneymarkets Unit (CMU) and the Hong Kong Trade Repository (HKTR) achieved 100%² system availability, outperforming the target of 99.95%. The settlement services on Northbound and Southbound Bond Connect remained smooth. Among the debt securities lodged with the CMU at the end of the year, the outstanding amount of Exchange Fund Bills and Notes reached HK\$1,207.5 billion, and the outstanding amount of other debt securities rose to HK\$1,573.3 billion equivalent, the highest recorded level since 2013.

Adoption of the FPS continued to increase in 2022. The number of registrations grew to 11.48 million at the end of 2022 and the average daily turnover for the year rose by 40% from 2021. The increased use of the FPS for settling Government bills, making merchant payments, and topping up Stored Value Facility (SVF) e-wallets or bank accounts, were the key drivers for the continued rise in the transaction volume on top of the steady growth in person-to-person and business payments.

To promote the safety and efficiency of the local retail payment industry, the HKMA oversees six designated retail payment systems (RPSs) and supervises 17 licensed SVFs (four of which are SVFs issued by licensed banks) under the Payment Systems and Stored Value Facilities Ordinance (PSSVFO). During the year, the HKMA continued to facilitate the smooth implementation of the Government's Consumption Voucher Scheme by co-ordinating and promoting dialogues and co-operation between the relevant Government parties and the SVF licensees appointed for the scheme.

In January 2023, the HKMA issued the conclusion to the discussion paper on crypto-assets and stablecoins, summarising the feedback received in relation to the discussion paper and the HKMA's relevant response. The conclusion paper confirmed that the HKMA would take a risk-based and agile approach in regulating stablecoins, and set out the expected regulatory scope and key regulatory requirements as well as next steps.

Internationally, the HKMA is an active member of the central banking community and plays a leadership role in a number of regional and international committees. Since 2018, the HKMA has been serving consecutive terms as the chair of the Working Group on Financial Markets (WGFM) established under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)³. In addition, the HKMA co-chairs the Policy and Standards Group of the Basel Committee on Banking Supervision (Basel Committee), as well as the Non-Bank Monitoring Experts Group and the Financial Innovation Network of the Financial Stability Board (FSB). Within the FSB, the HKMA also leads a team that monitors progress and follows up on supervisory issues associated with financial benchmark transition.

² About 99.99% if including downtime caused by external factors.

³ The EMEAP is a co-operative organisation of central banks and monetary authorities in the East Asia and Pacific region.

International Financial Centre

Review of 2022

Global Financial Leaders' Investment Summit



The Global Financial Leaders' Investment Summit takes place on 1–3 November

Following the Financial Secretary's announcement in the 2022–23 Budget, the HKMA organised the Global Financial Leaders' Investment Summit in November. The three-day event was a resounding success that featured 26 prominent financial leaders sharing their unique perspectives and ideas on navigating through economic, financial, technological and geopolitical uncertainties in search of opportunities. It was attended by over 200 participants from about 120 international financial institutions, including some of the world's largest banks, securities firms, asset owners and managers, private equity and venture capital firms, hedge funds and insurers. More than 40 of these institutions were represented by their group chairmen or chief executive officers.

The Summit has sent a powerful message to the world that Hong Kong is back, and enabled global financial leaders to see for themselves the resilience and vibrancy that define Hong Kong, and the opportunities that the city offers to pivot their businesses to the burgeoning Asian markets.

Hong Kong as the dominant gateway to the Mainland and the global offshore renminbi business hub

Hong Kong reinforced its position as a global hub for offshore renminbi business by enhancing offshore liquidity, further strengthening connectivity with the Mainland financial markets and upgrading financial market infrastructure. Renminbi businesses, including bank deposits, trade settlement, payments and offshore bond issuances, continued to witness robust growth during the year.

Encouraging progress and achievements were seen in respect of liquidity enhancement, product development and expansion of the Connect schemes. The results of the 2022 Triennial Survey of Foreign Exchange and Derivatives Market Turnover by the BIS reaffirmed Hong Kong's leading position as a renminbi foreign exchange centre.

- **RMB981.7 billion**

RMB deposits, including outstanding certificates of deposit, **+4%**

- **RMB1.654 trillion**

average daily turnover of RMB RTGS system, **+9%**

- **RMB9.3 trillion**

RMB trade settlement handled by banks in Hong Kong, **+32%**

- **RMB143.4 billion**

offshore RMB bond issuance, **+31%**

- **70%+**

of global RMB SWIFT payments

- **US\$191.2 billion**

average daily turnover of RMB foreign exchange transactions in April 2022, **+78%** from April 2019

- **RMB800 billion/HK\$940 billion**

size of currency swap agreement with the PBoC, with the arrangement not subject to renewal and also having the largest size

Northbound Bond Connect continued to serve as a major channel for international investors to invest in the Mainland bond market using market infrastructures and financial services in Hong Kong. Daily turnover under Northbound Bond Connect averaged RMB32.2 billion in 2022 (a 25% increase from 2021) and accounted for 61% of overall trading turnover by foreign investors in the China Interbank Bond Market.

Northbound Bond Connect trading was further facilitated by the introduction of technical enhancements in July, including digitalisation of investors' participation in onshore primary issuance and a reduction in service fees. These market-oriented enhancements improved operational efficiency and lowered trading costs for investors under Northbound Bond Connect.

International Financial Centre

To complement Northbound Bond Connect and facilitate global investors' management of interest rate risks for their bond investments on the Mainland, a new initiative for mutual access between interest rate swap markets in Hong Kong and the Mainland (Swap Connect) was announced in July. With Northbound Trading commencing first in the initial phase, Swap Connect will allow global investors to trade interest rate swap products in the Mainland via an infrastructure link between Hong Kong and the Mainland, thereby strengthening Hong Kong's status as a risk management centre. Preparation for Swap Connect is under way, with a view to launching Northbound Trading as soon as practicable. The HKMA will continue to, in collaboration with relevant authorities and agencies, explore the provision of more diversified risk management tools, including offshore treasury bond futures, to further support global investors' investment in the Mainland bond market.

Southbound Bond Connect has received a positive response and operations have been smooth since its launch in 2021, with transactions covering major bond products tradeable in the Hong Kong market and denominated in multiple currencies. The scheme has contributed to the growth of the offshore renminbi market, including the pickup in renminbi-denominated debt securities issuance. The HKMA is working closely with relevant Mainland authorities to explore possible enhancements under Southbound Bond Connect, with a view to enriching Hong Kong's bond market.

The Cross-boundary WMC has been operating smoothly since its launch in 2021. Up to end-2022, 24 eligible Hong Kong banks had launched Cross-boundary WMC services together with their Mainland partner banks. As of the end of 2022, more than 40,000 individual investors (including Guangdong, Hong Kong and Macao) had participated in the scheme and more than 16,000 cross-boundary remittances (including Guangdong, Hong Kong and Macao) totalling more than RMB2.2 billion had been completed. Taking into account banks' operational experience and market feedback, the HKMA has been liaising closely with Mainland authorities on enhancements to the regulatory framework and service scope, such as expanding the scope of eligible products and improving sales arrangements, among others.

In July, the PBoC and the HKMA announced enhancements to the existing currency swap agreement, upgrading it to a long-standing arrangement with no further need for renewal, and

expanding the swap size from RMB500 billion/HK\$590 billion to RMB800 billion/HK\$940 billion. These enhancements differentiate Hong Kong from other jurisdictions in terms of being the first and only among currency swap counterparties of the PBoC to have a long-standing agreement and also the largest swap size. The enhanced swap arrangement further strengthens Hong Kong's development as a leading offshore renminbi hub and its unique role in the internationalisation of the renminbi. On the back of the aforesaid arrangement, the HKMA has enhanced its Renminbi Liquidity Facility, including increasing the size and streamlining the operation. This will further support market liquidity, paving the way for market players to capitalise on renminbi opportunities, including enhancements and innovations of offshore renminbi products and services. In October, the HKMA extended the designation of nine authorized institutions as Primary Liquidity Providers for the offshore renminbi market in Hong Kong.

During 2022, the offshore renminbi bond market continued to flourish, with issuance size reaching an eight-year high of RMB143.4 billion and wider issuance diversity. In November, the People's Government of Hainan Province and the Shenzhen Municipal People's Government completed their issuance of offshore renminbi local government bonds in Hong Kong. These issuances included blue bonds, green bonds and sustainability bonds, enriching the range of renminbi financial products available in the Hong Kong market.

To further expand the channels for the two-way flow of cross-boundary renminbi funds and develop offshore renminbi products in Hong Kong, a working group comprising the HKMA, the SFC and HKEX completed a feasibility study on promoting the trading of renminbi-denominated equity securities in Hong Kong, and made recommendations for implementation, including introducing a DCMM regime to enhance the trading mechanism of Hong Kong dollar and renminbi dual-counter stocks in Hong Kong, and broadening the scope of Southbound Trading of Stock Connect to include renminbi counters. The working group has been taking forward the necessary preparation work, with a view to launching the DCMM regime within the first half of 2023. Around 20 major listed issuers have indicated their interest in setting up renminbi trading counters after the introduction of the DCMM scheme.

International Financial Centre

Enhancing financial platform competitiveness

Hong Kong's bond market development

Hong Kong as an international bond issuance hub

According to the International Capital Market Association, Hong Kong was, for seven consecutive years, the largest centre for arranging international bond issuance by Asian issuers. In 2022, issuance volume amounted to over US\$100 billion, equivalent to around one-third of the market. Hong Kong was also by far the most important location for arranging debut issuance in the region, with a 82% market share.

In August, the Steering Committee on Bond Market Development in Hong Kong chaired by the Financial Secretary published a report, which laid out recommendations along three strategic directions: (i) leveraging the opportunities presented by the Mainland market and new global trends; (ii) upgrading infrastructure to attract business and resources; and (iii) promoting social and financial inclusion and facilitating participation of retail investors. The HKMA is working with the Government and other financial regulators in implementing the recommendations.

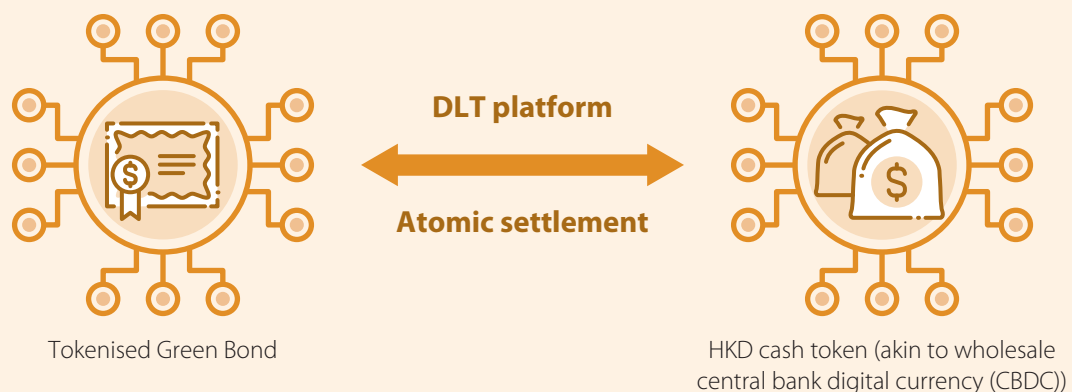


Tokenised government green bond

In February 2023, the HKMA assisted the Government to issue the world's first tokenised government green bond under the Government Green Bond Programme (the Tokenised Green Bond). The use of distributed ledger technology (DLT) was successfully applied to the primary issuance and settlement processes, and will be tested out in secondary trading, asset servicing and redemption during the one-year bond tenor.

The pilot issuance has proved the compatibility of Hong Kong's legal and regulatory environment with tokenised bonds, and achieved certain major breakthroughs vis-à-vis the traditional bond issuance process (Figure A).

Figure A Pilot Tokenised Green Bond



- **Atomic delivery-versus-payment (DvP) settlement** enabled by on-chain tokens representing the bond leg (Tokenised Green Bond) and the cash leg (HKD cash token)
- **Streamlined end-to-end issuance process** and shortened settlement cycle from T+7 to T+1
- **First test case of wholesale HKD CBDC in bond settlement**, paving the way for cross-border securities settlement as the mBridge initiative continues to develop

International Financial Centre

Government Bond Programme

During the year, the HKMA arranged 14 tenders of institutional government bonds with a total nominal value of HK\$21.8 billion, including the inaugural issuance of HK\$0.5 billion of 20-year Hong Kong Dollar Government Bonds to further facilitate the formation of a local yield curve. As at the end of 2022, the total nominal amount of outstanding institutional bonds was HK\$95.3 billion.

On the retail front, the HKMA arranged the issuance of Silver Bond⁴ in September with an issuance size of HK\$45 billion to Hong Kong senior residents, with a tenor of three years. The Silver Bond issuance attracted more than 289,600 applications, with subscription amounts exceeding HK\$62.4 billion. The total nominal amount of retail bonds outstanding as at the end of 2022 was HK\$123.3 billion.

Government Green Bond Programme

Since the launch of the Government Green Bond Programme in 2018, a total of close to US\$16 billion equivalent of green bonds, comprising institutional and retail bonds, have been issued. The HKMA assisted the Government to issue its inaugural retail green bond as well as around US\$5.85 billion equivalent of institutional green bonds in the 2022–23 financial year. More details can be found in the *Green and Sustainable Finance* chapter of the *Sustainability Report 2022*.

Hong Kong as a green and sustainable finance hub

In recent years, the HKMA has continued to take forward various initiatives to further enhance Hong Kong's position as a regional green and sustainable finance hub. See the *Green and Sustainable Finance* chapter of the *Sustainability Report 2022* for more details.

Asset and wealth management

Hong Kong is Asia's largest private equity hub outside the Mainland, with around US\$208 billion in capital under management and around 630 private equity firms as of December. The HKMA continued to work with stakeholders to enhance Hong Kong's private equity platform. By the end of December 2022, 577 Limited Partnership Funds⁵ had been established.

With its unique advantage as the dominant gateway to the Mainland and its unparalleled access to investment opportunities, Hong Kong is also well positioned as a family office hub in the region. The HKMA works with other Government agencies and the financial industry to develop a facilitating environment for family offices to set up and operate in Hong Kong. Recent initiatives include the introduction of legislative amendment to provide more facilitative tax arrangement for family offices operating in Hong Kong.

Hong Kong as a hub for corporate treasury centres

Hong Kong's role as a gateway to the Mainland and its wide-ranging strengths as an international financial centre provide corporates with unparalleled access to talent as well as financial and professional services. Since the introduction of the Corporate Treasury Centre tax regime in June 2016, the HKMA has been actively promoting and engaging with the industry to raise awareness of Hong Kong's value proposition as a Corporate Treasury Centre hub, resulting in a growing number of multinational and Mainland corporates setting up Corporate Treasury Centres in Hong Kong.

⁴ First introduced in 2016, Silver Bond aimed to provide steady returns to Hong Kong residents aged 65 or above. In 2021, the minimum eligible age for subscription of Silver Bond was lowered to 60. Silver Bond is a three-year bond whose semi-annual interest payments will be either the Fixed Rate i.e. the interest rate floor set by the Government, or the Floating Rate, i.e. an interest rate linked to the average annual inflation rate, whichever is higher.

⁵ The Limited Partnership Fund regime and the associated re-domiciliation mechanism were introduced in August 2020 and November 2021 respectively.

International Financial Centre

Hong Kong as a financing hub for infrastructure investments

The HKMA Infrastructure Financing Facilitation Office serves as an important platform to facilitate infrastructure investments by leveraging Hong Kong's status as an international financial centre. The office has around 100 international partners⁶, including key industry stakeholders such as multilateral financial agencies and development banks, project developers and operators, public sector entities and professional service firms.

Outreach initiatives

Throughout the year, the HKMA proactively engages with industry stakeholders to reach out to the broader financial community locally and overseas, so that decision makers are better informed about the resilience of Hong Kong's financial system and the growth opportunities it presents.

In 2022, through 32 webinars, speaking engagements and individual engagements, the HKMA reached out to local and international audiences, including nearly 5,000 senior executives and professionals from central banks, institutional investors, pension funds, insurance companies, corporates, ultra-high-net-worth individuals and family offices.

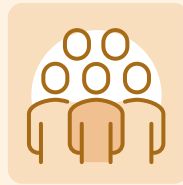
Market outreach event participant analysis



Events Hosted
32

Including:

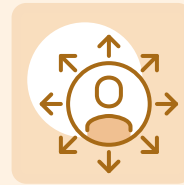
- Summit and dialogues
- Conferences and forums
- Roundtables and meetings
- Webinars



Audience Reached
nearly 5,000

Channelled through:

- Institutional banks
- Industry associations
- Chambers of commerce
- Individual engagements



Sectors Covered
15

Including:

- Banks
- Asset managers/Hedge funds/Private equity funds
- Asset owners
- Professional service providers
- Corporates

⁶ Full list of Infrastructure Financing Facilitation Office partners is available at the HKMA website (<https://www.hkma.gov.hk/eng/key-functions/international-financial-centre/hkma-infrastructure-financing-facilitation-office/ifo-partners/>)

International Financial Centre

Hong Kong's treasury markets

The HKMA participates actively in international discussions and closely works with the Treasury Markets Association (TMA) to enhance the professionalism of Hong Kong's treasury market participants and prepare industry stakeholders for international developments.

Through participation in the Global Foreign Exchange Committee, the HKMA and the TMA contributed to the continuing review of the Foreign Exchange Global Code. Having regard to the publication of the updated Code in 2021, the HKMA issued the renewed Statement of Commitment to the Foreign Exchange Global Code in July 2022, demonstrating its commitment to adhering to the Code when acting as a market participant in the foreign exchange market. The HKMA, the TMA and other industry associations joined hands to raise market awareness of the discontinuation of the London Interbank Offered Rate (LIBOR) and helped the banking and corporate sectors continue to transition away from LIBOR into the respective alternative reference rates.

The HKMA also worked with the TMA in engaging local market participants to support the development of the Hong Kong Dollar Overnight Index Average (HONIA)-linked market. These efforts included the continuing issuance of the HONIA-indexed floating rate note under the Government Bond Programme.

Over-the-counter derivatives market

The HKMA closely works with the SFC to develop detailed rules for implementing the regulatory regime for the over-the-counter (OTC) derivatives market in Hong Kong to monitor systemic risk and enhance transparency in the OTC derivatives market. Different aspects of the regulatory regime have been introduced in phases⁷. Following public consultations in 2022 on further enhancements to the regime, updated lists of financial service providers and new calculation periods under the mandatory clearing regime came into effect in January and March 2023 respectively.

The HKMA participated in several international forums and the OTC derivatives working groups established under the FSB, contributing to the relevant international initiatives and monitoring international regulatory developments closely.

Hong Kong's credit ratings

The HKMA maintains close dialogue with international credit rating agencies to help support a balanced and objective assessment of Hong Kong's credit strength and discuss these agencies' concerns about the rating outlook. During the year, S&P Global Ratings, Moody's Investors Service, and Fitch Ratings maintained Hong Kong's rating at AA+, Aa3 and AA- respectively.

Hong Kong as a fintech hub in Asia

Fintech adoption in the banking sector

As part of the "All banks go fintech" focus area of the HKMA's "Fintech 2025" strategy, the HKMA completed the Tech Baseline Assessment in 2022, which took stock of banks' current and planned adoption of fintech over the coming years, and assessed whether there are any areas that would benefit from the HKMA's support. The results indicated extensive and growing adoption of fintech by the Hong Kong banking sector.

During the year, the HKMA continued to roll out initiatives under its two-year roadmap to promote Regtech adoption by banks in Hong Kong, and made good progress in building an end-to-end digital supervisory platform to improve the efficiency and effectiveness of its supervisory processes. See page 90 of the *Banking Stability* chapter for more details.

Wholesale Central Bank Digital Currency

As a collaborative effort between the HKMA, the Bank of Thailand, the Digital Currency Institute of the PBoC, the Central Bank of the United Arab Emirates, and the Bank for International Settlements (BIS) Innovation Hub Centre in Hong Kong, the Multiple Central Bank Digital Currency Bridge (mBridge) project went beyond experimentation and entered the pilot phase in the third quarter of 2022. During the six-week pilot, 20 banks in four jurisdictions used the mBridge platform to conduct over 160 payment and foreign exchange transactions totalling more than HK\$171 million. This was among the first multi-CBDC projects to settle real-value, cross-border transactions on behalf of corporates. A report titled *Project mBridge: Connecting economies through CBDC* was published in October to deliver the results of the pilot and the key lessons learnt (Figure 1).

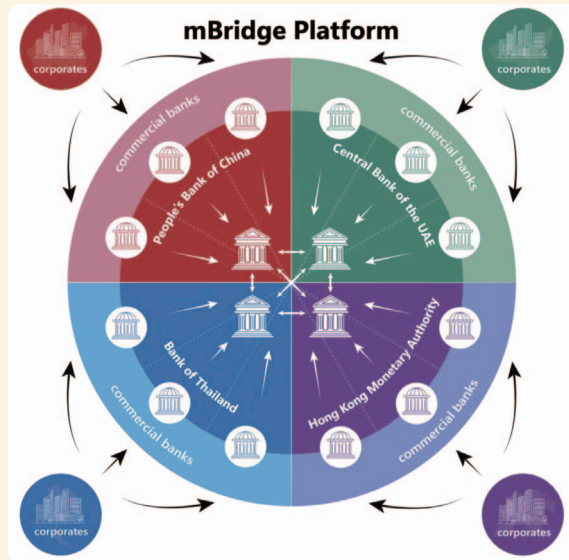
⁷ The first phase of mandatory clearing and the second phase of mandatory reporting took effect in September 2016 and July 2017 respectively.

International Financial Centre

Figure 1 Joint report, *Project mBridge: Connecting economies through CBDC*



Published by the HKMA, together with the participating authorities and the BIS Innovation Hub Centre in Hong Kong



The six-week pilot represents the largest cross-border CBDC pilot to date, in which 20 banks in four jurisdictions use the mBridge platform to conduct payment and foreign exchange transactions



The panel session on mBridge at Hong Kong FinTech Week 2022

Retail Central Bank Digital Currency

To strengthen its research work on CBDC, the HKMA continued its study on the prospect of issuing retail CBDC in Hong Kong, i.e. e-HKD, covering both technical and policy considerations. Following the release of a technical whitepaper in 2021, the HKMA published a discussion paper in April 2022 to discuss the potential benefits and challenges brought by retail CBDC, various design considerations as well as use cases of e-HKD. After two rounds of market consultation, the HKMA published a position paper in

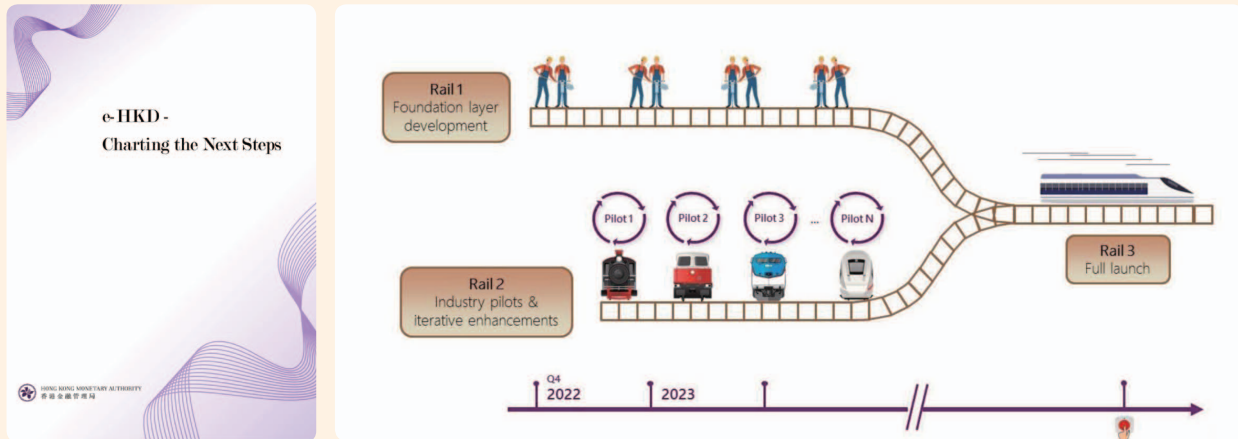
September to set out its policy stance on e-HKD and outline its next steps (Figure 2). It also announced that it would start paving the way for any possible e-HKD implementation in a prudent manner by adopting a three-rail approach. Separately, in June, the HKMA announced Project Sela, a joint research effort with the Bank of Israel and the BIS Innovation Hub Centre in Hong Kong, to take a deep dive into cybersecurity issues in the context of retail CBDC.



Discussion paper titled e-HKD: A Policy and Design Perspective

International Financial Centre

Figure 2 Position paper, *e-HKD: Charting the Next Steps*



The HKMA sets out its policy stance on e-HKD in the paper

The HKMA adopts a three-rail approach to start paving the way for possible implementation of e-HKD in the future



The panel session on retail CBDC at Hong Kong FinTech Week 2022

Meanwhile, the HKMA continued to work with the Digital Currency Institute of the PBoC on the technical pilot testing of using digital renminbi (e-CNY) for making cross-boundary payments in Hong Kong. The test included the use of the FPS to top up e-CNY wallets and involved the participation of more Hong Kong banks. This will help promote interconnection in the Guangdong–Hong Kong–Macao Greater Bay Area (GBA) and bring greater convenience to Hong Kong and Mainland tourists by further improving the efficiency and user experience of cross-boundary payments.

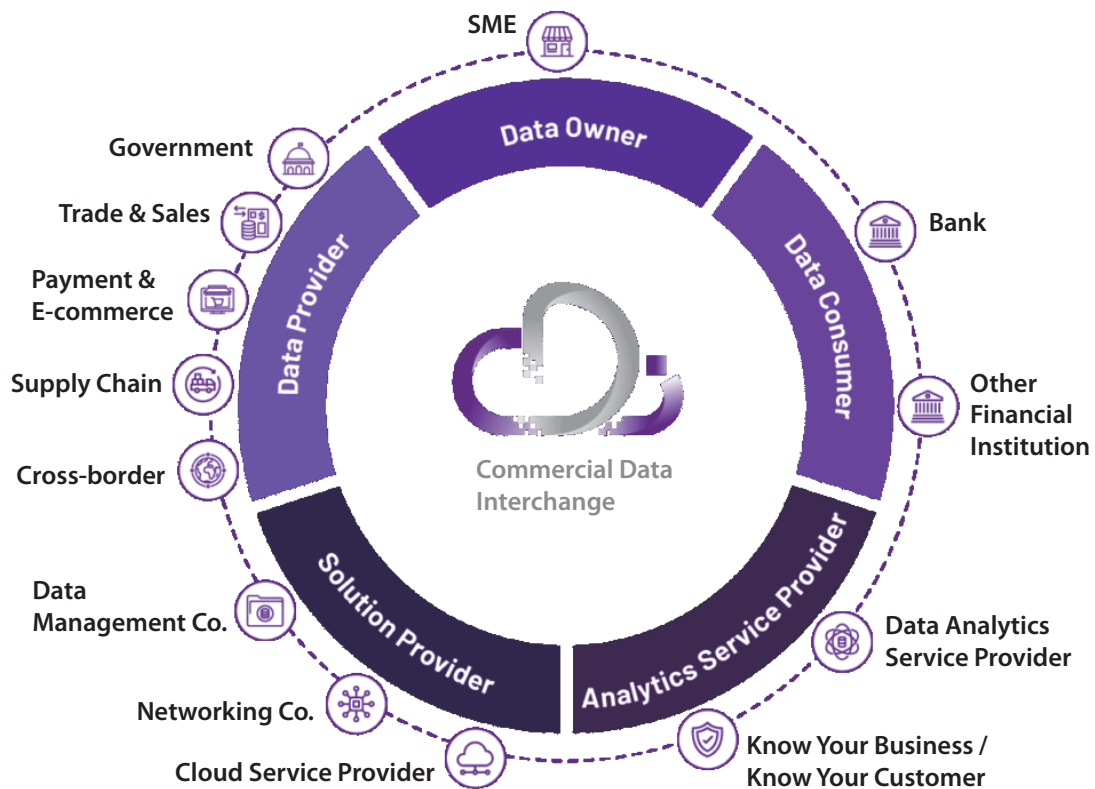
International Financial Centre

Commercial Data Interchange

In October, the HKMA announced the official launch of CDI. As a consent-based financial data infrastructure, CDI aims to enhance data sharing by facilitating financial institutions' retrieval of enterprises' commercial data, in particular the data of small and medium-sized enterprises (SMEs), from both public and private data providers. As at end-December, more than 1,000 SME loans, amounting to over HK\$1.9 billion, had been approved by the participating banks under the facilitation of CDI. The proven usefulness of alternative data attracted the participation of 23 banks with SME business and 10 data providers. In particular, six key data providers with substantial SME data were ready to provide consented access for banks in the production environment, covering e-trade declaration, e-commerce, supply chain, payment and credit reference data. To ensure that all CDI participants follow a common set of rules for proper, fair and secure exchange of commercial data, the CDI Framework detailing the governance model and structure was also launched.



SME owners discuss how they have benefitted from the use of alternative data shared via CDI



With the official launch of CDI, all stakeholders work together to create a coherent landscape for data sharing

International Financial Centre

Talent development

To expand the fintech talent pool, the HKMA continued to run the Fintech Career Accelerator Scheme (FCAS) in collaboration with its strategic partners to nurture young talent at various stages of their career development. A total of 125 students benefitted from the scheme in 2022. In October, through partnering with the Insurance Authority, the scheme was further enhanced to FCAS 3.0 and extended to the insurance sector. Separately, the Industry Project Masters Network (IPMN) scheme was officially launched in September. Under the “Fintech 2025” strategy, the IPMN scheme aims to groom fintech talent by providing opportunities for postgraduate students to work on real-life fintech projects and gain hands-on experience and skills. As at March 2023, more than 130 students, 30 industry mentors, and over 30 banks and SVF operators had taken part in the IPMN scheme.



Participating interns of the FCAS at Hong Kong FinTech Week 2022

Fintech Sandbox

The Fintech Supervisory Sandbox (FSS) continued to be extensively used by authorized institutions during the year. As of end-December 2022, a total of 274 pilot trials of fintech initiatives had been allowed in the FSS since its launch in 2016, compared with 234 as of end-2021. As of end-December 2022, the HKMA had also received a total of 755 requests to access the FSS Chatroom, with more than 61% of requests made by technology firms (tech firms). Since its introduction in 2017, the Chatroom has provided useful supervisory feedback at an early stage of fintech projects.

In collaboration with Cyberport, the HKMA launched the FSS 3.1 Pilot in October to provide development-stage funding support, with a view to promoting commercialisation and wider adoption of the successful projects under the Government’s FinTech Proof-of-Concept Subsidy Scheme.

Greater Bay Area fintech pilot trial facility

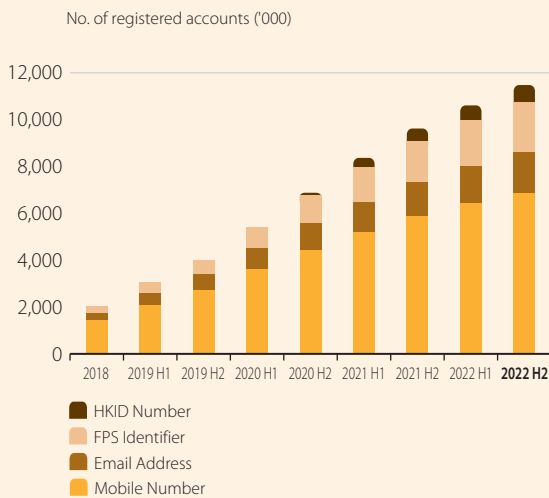
The HKMA and the PBoC jointly rolled out in February a “one-stop platform” for financial institutions and tech firms to conduct pilot trials of cross-boundary fintech initiatives in GBA cities. During the year, two banks successfully completed trials of their cross-boundary fintech products through the one-stop platform and began preparing for the launch of their products.

International Financial Centre

Faster Payment System

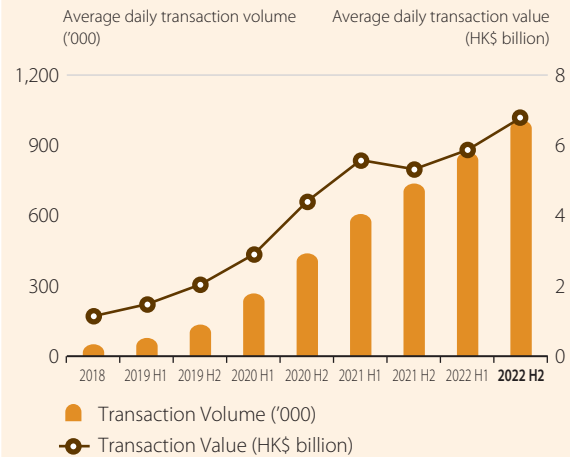
Since the launch of the FPS in September 2018, the number of registrations has grown steadily. As of 31 December 2022, the FPS had 11.48 million registrations (Chart 1), up 19% year on year.

Chart 1 Registration of FPS proxy identifiers



The adoption and turnover of the FPS continued to grow alongside an increasing use of electronic payment instruments (Chart 2). The average daily turnover exceeded 940,000 real-time transactions (worth HK\$6.3 billion and RMB205 million) in 2022, 40% higher than that in 2021. The increased use of the FPS has also been spurred by a steady growth of adoption and a gradual extension in the scope of usage, from primarily person-to-person payments to bill, retail and business payments.

Chart 2 Average daily turnover of Hong Kong dollar real-time payments



The HKMA has been working together with various Government departments and the banking industry to expand the usage of the FPS. The general public can now pay taxes, rates and Government rent, and water charges through the FPS, and scan an FPS QR code to make payments at designated counters and self-help kiosks of Government departments. In addition, FPS services have been extended to online payment of Government services since 19 December 2022. The public can easily scan FPS QR codes displayed on concerned web pages, or use the FPS Web-to-App payment function on mobile devices. Four Government departments were first to provide the FPS online payment service, and more Government bureaux are expected to adopt the service in 2023. Some public bodies have also adopted the FPS App-to-App payment function to allow the general public to use the FPS to make payments for rental of public housing and shop, public hospital fees and parking meter fees, etc. The HKMA will continue to assist the Government to adopt the FPS in other use cases.

International Financial Centre

In another positive development, more merchants have adopted the FPS to support their business operations. Merchant payments surged to an average of 147,000 transactions⁸ per day in 2022, representing a 28% increase over 2021. The FPS is commonly used to pay bills, make in-app direct debits, and complete App-to-App or Web-to-App and other online purchases. The increasing popularity of SVF e-wallets also contributed to more account top-up transactions via the FPS. The average daily number of top-up transactions rose in 2022 by 87% over 2021.

To drive this momentum further, the HKMA encouraged the banking industry to offer simple, easy-to-use and affordable FPS payment solutions to microbusinesses to help small merchants embrace the era of e-payment, which is also consistent with one of the HKMA's goals of promoting financial inclusion.

To provide a better customer experience, the system functionality of the FPS was improved to introduce a feedback mechanism on name checking results to mitigate the risk of mis-transfer of funds while at the same time enhancing customer protection. This also allows customers to receive notifications on the credit transfer status, including completion of fund transfer or the reason for transfer failure.

The HKMA continued to promote the use of the FPS throughout 2022. An online video was launched to further raise public awareness on the FPS and suggested smart tips for using the FPS through various social media channels. Alongside the Government's adoption of the Web-to-App FPS payment function and support for this function by more than 20 banks, the HKMA produced an animated video to explain the features and benefits of the App-to-App and Web-to-App FPS payment functions to the general public and merchants (Figure 3). Together with the banking industry, efforts were also made to promote giving electronic "lai-sees" (e-laisees) via the FPS in order to go green. Banks and SVFs also developed innovative user interfaces to facilitate the giving of e-laisees and offered incentives to encourage their customers to do so.

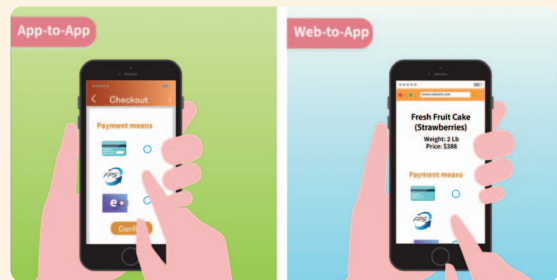
Figure 3 Raising public awareness on the FPS

Early 2022



An online video explaining the benefits and features of the FPS

December 2022



An animated video explaining the App-to-App and Web-to-App FPS payment functions to the general public and merchants

⁸ The figure includes payments to the Government via the FPS.

International Financial Centre

Open Application Programming Interface

The HKMA successfully launched all four phases of implementation as set out in the Open Application Programming Interface (Open API) Framework for the Hong Kong Banking Sector published in 2018, with a view to facilitating collaboration between the banking sector and third-party service providers (TSPs) in a secure and controllable environment, thereby promoting the development of innovative banking products and enhancing customer experience. Throughout the year, the HKMA continued to facilitate the development and adoption of Open API. A total of 28 participating retail banks progressively offered various Open API functions, covering product information, customer acquisition, account information and transactions. The number of registered TSPs using banks' Open API demonstrated steady growth. As at December, more than 1,300 registrations from these TSPs had been recorded, representing year-on-year growth of about 15%. Over the same period, the number of monthly banking product applications and payment transactions that leveraged banks' Open API witnessed a 33-fold increase to 689,000.

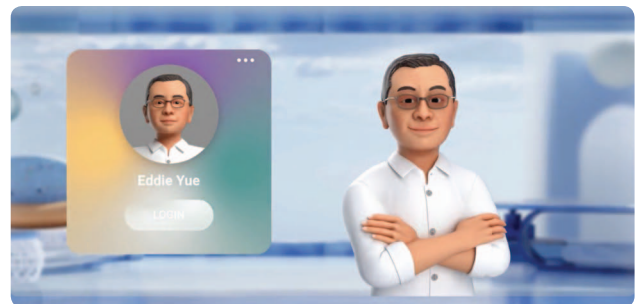
Outreach and collaboration

Since its establishment in March 2016, the FFO has played a crucial role in reaching out to and liaising with fintech market players to facilitate the exchange of ideas among stakeholders. During the year, the FFO organised four events, including panel discussions during Hong Kong FinTech Week 2022. The events and FinTech Week attracted over 30,000 attendees and more than five million online views. FFO representatives also spoke at 36 fintech-related events and held 1,020 meetings with other regulatory authorities, industry organisations, financial institutions, technology firms and startups, and handled 106 enquiries from market participants.

Throughout the year, the HKMA also made considerable efforts to further strengthen cross-border fintech collaboration, including by regularly attending summits and conferences hosted by other jurisdictions.



Mr Eddie Yue, Chief Executive of HKMA, delivers the opening keynote at Hong Kong FinTech Week 2022, appearing as an avatar before meeting the audience on stage at the event



Mr Howard Lee, Deputy Chief Executive of HKMA, conducts a fireside chat on central banks and innovation at the event

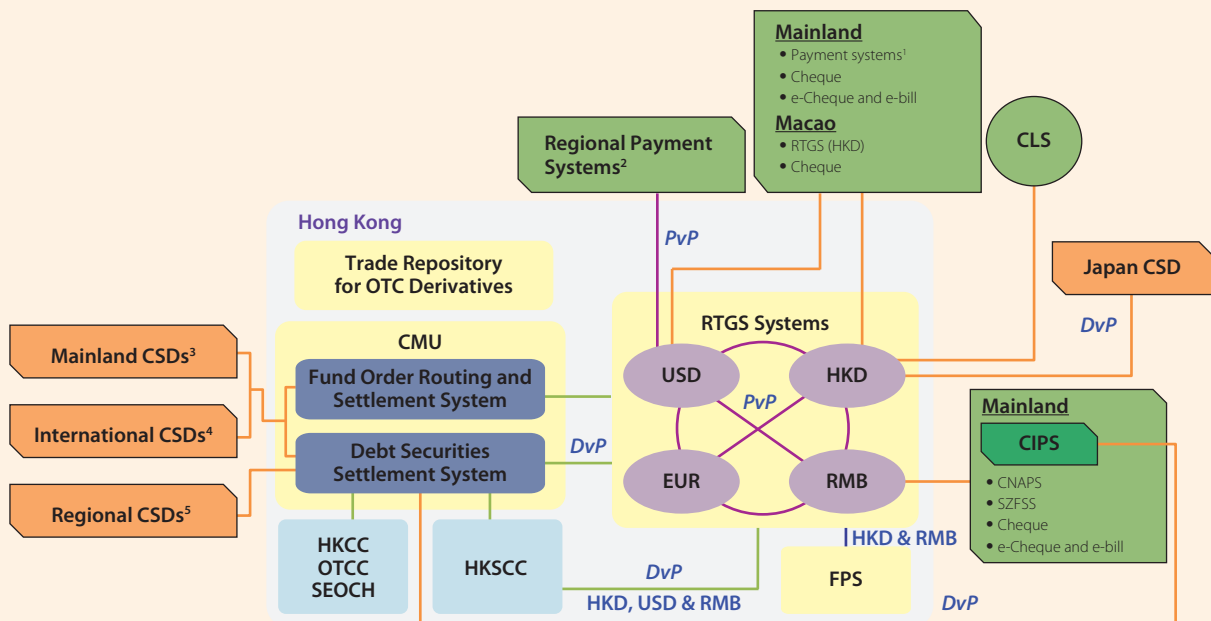


International Financial Centre

Hong Kong's financial infrastructure

The multi-currency, multi-dimensional payment and settlement platform of the HKMA, with extensive domestic and overseas system linkages, continued to operate smoothly and efficiently during the year, and has helped maintain Hong Kong as a regional hub for payment and settlement of funds and securities (Chart 3).

Chart 3 Hong Kong's multi-currency financial infrastructure



Note 1: CDFPCS, RTGS links with Shenzhen and Guangdong

Note 2: PvP links with Malaysia, Thailand and Indonesia

Note 3: Cross-boundary links with CCDC and SHCH (Bond Connect) and CSDC (Mutual Recognition of Funds)

Note 4: Cross-border links with Clearstream and Euroclear

Note 5: Cross-border links with Austraclear (Australia), KSD (South Korea) and TDCC (Taiwan)

CCDC – China Central Depository & Clearing Co., Ltd. (settlement system for fixed income securities in Mainland)

CDFPCS – China's Domestic Foreign Currency Payment System (RTGS system for foreign currency payment in Mainland)

CIPS – Cross-Border Interbank Payment System

CLS – Continuous Linked Settlement (global multicurrency cash settlement system)

CMU – Central Moneymarkets Unit (settlement system for debt securities)

CNAPS – China National Advanced Payment System (RMB RTGS system in Mainland)

CSDC – China Securities Depository and Clearing Corporation Limited

FPS – Faster Payment System

HKCC – HKFE Clearing Corp Ltd (central counterparty providing clearing and settlement for futures)

HKSCC – HK Securities Clearing Co Ltd (central counterparty providing clearing and settlement for securities)

Japan CSD (BOJ-NET) – Bank of Japan Financial Network System for Japanese Government Bond Services

KSD – Korean Securities Depository (Korea's central securities depository)

OTCC – OTC Clearing Hong Kong Limited (central counterparty providing clearing and settlement for OTC derivatives)

RTGS – Real Time Gross Settlement

SEOCH – SEHK Options Clearing House Ltd (central counterparty providing clearing and settlement for options)

SHCH – Shanghai Clearing House (settlement system for fixed income securities in Mainland)

SZFSS – Shenzhen Financial Settlement System

TDCC – Taiwan Depository and Clearing Corporation (Taiwan's securities settlement system)

DvP – Delivery-versus-payment

PvP – Payment-versus-payment

International Financial Centre

Hong Kong dollar RTGS system

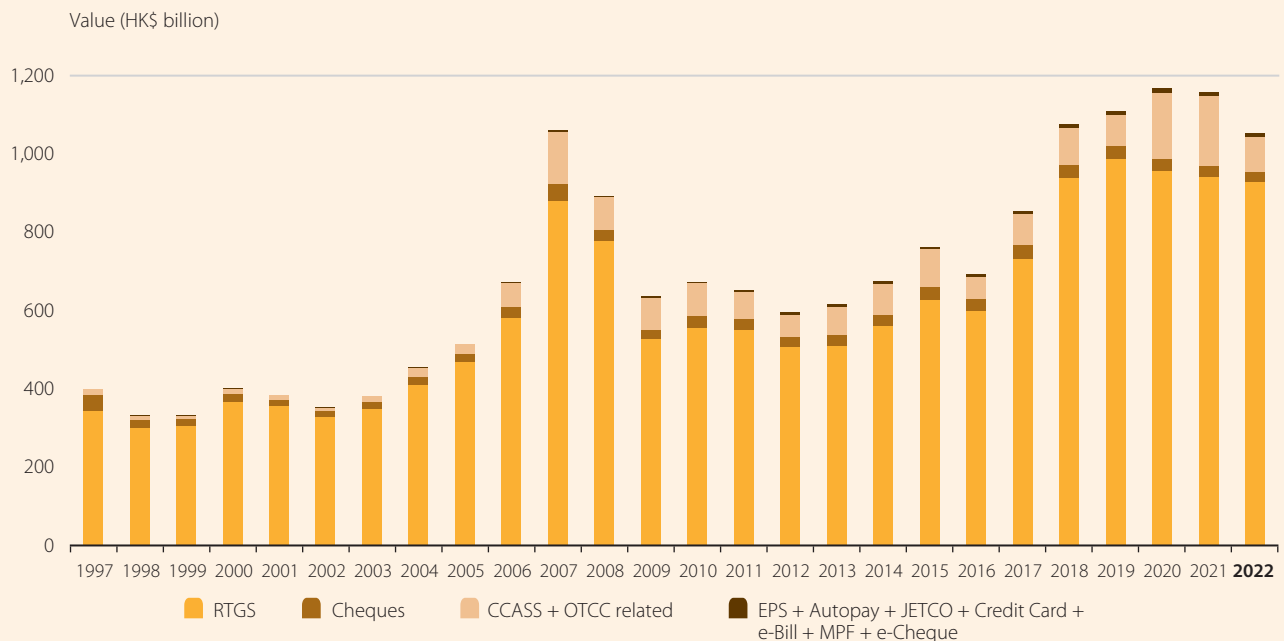
The Hong Kong dollar Clearing House Automated Transfer System (CHATS), which operates on an RTGS basis, is responsible for clearing Hong Kong dollar interbank payments. It continued to run smoothly and efficiently in 2022, with a daily average transaction value of HK\$928.1 billion (28,529 items), compared with HK\$939.7 billion (30,593 items) in 2021.

In addition to settling large-value payments, CHATS handles daily bulk clearings and settlement of stock market transactions, Mandatory Provident Fund (MPF) schemes'

switching transactions, credit card transactions, cheques, small-value bulk electronic payment items (EPS, auto-credit and auto-debit transactions) and automated teller machine transfers (Chart 4).

The FPS serves as an extension of Hong Kong dollar CHATS to enable the public to make instant retail fund transfers and payments across different banks and SVFs on a round-the-clock basis. It has been operating smoothly since its inception in September 2018, with a daily average real-time payment transaction value of HK\$6.3 billion (940,253 items) in 2022.

Chart 4 Hong Kong dollar RTGS system average daily turnover



International Financial Centre

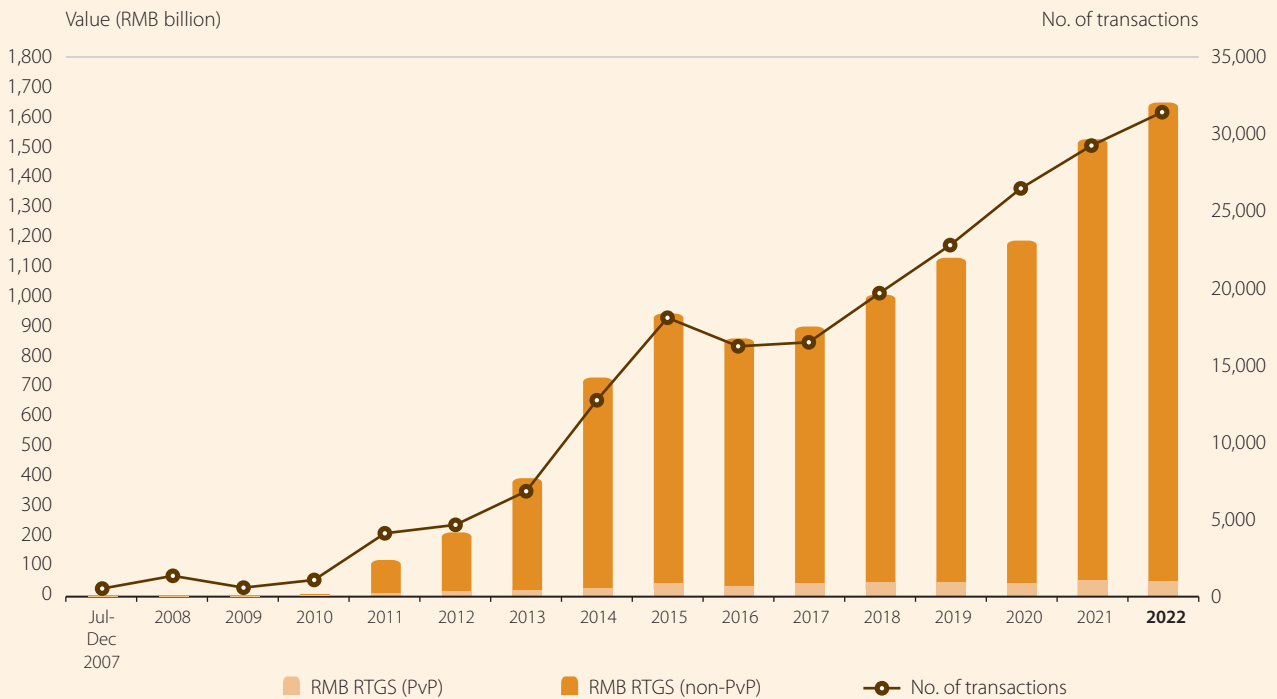
RTGS systems for other currencies in Hong Kong

The renminbi, US dollar and euro RTGS systems all operated smoothly during 2022. The cut-off time of the renminbi RTGS system was extended in phases since June 2012 from 6:30 p.m. to 5:00 a.m. the next day (Hong Kong time), providing a total of 20.5 hours for same-day value payments. The extension gives financial institutions around the world a much longer operating window to settle offshore and cross-boundary renminbi payments through Hong Kong's

infrastructure. The average daily value of Mainland-Hong Kong cross-boundary renminbi payments amounted to around RMB349 billion in 2022, accounting for 21% of the total turnover.

The average daily turnover and other details of the RTGS systems for other currencies are set out in Charts 5–7 and Table 1.

Chart 5 Renminbi RTGS system average daily turnover



International Financial Centre

Chart 6 US dollar RTGS system average daily turnover

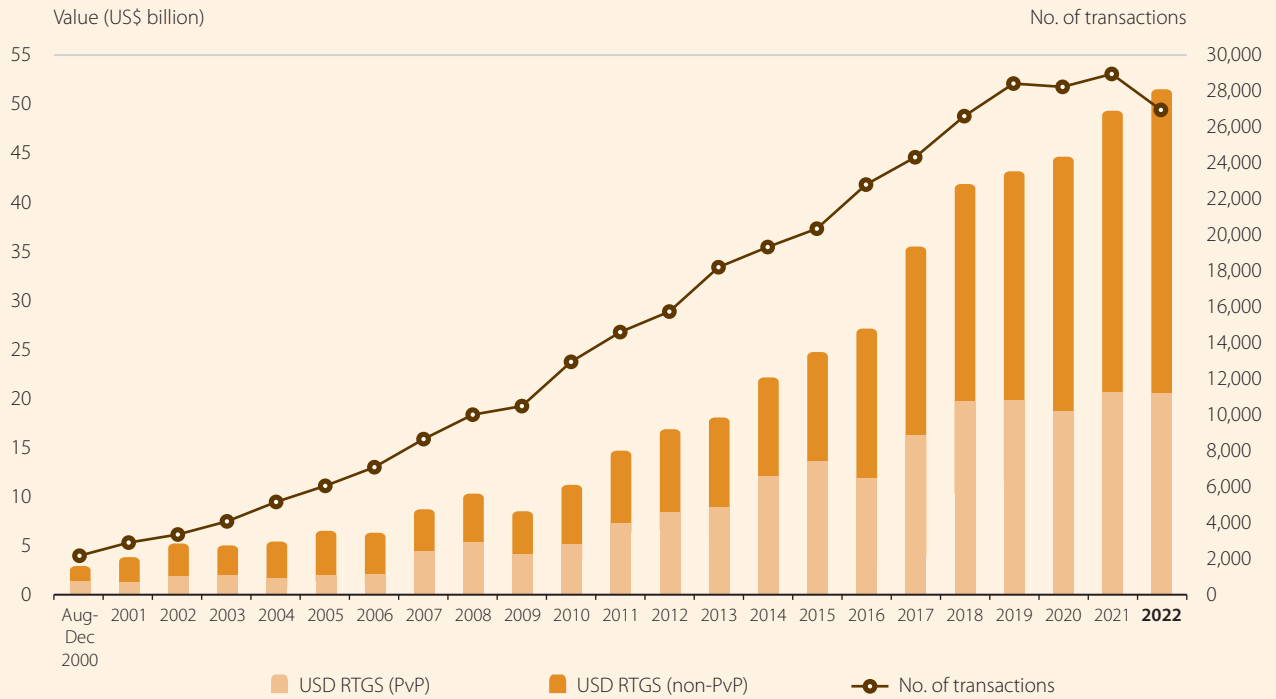
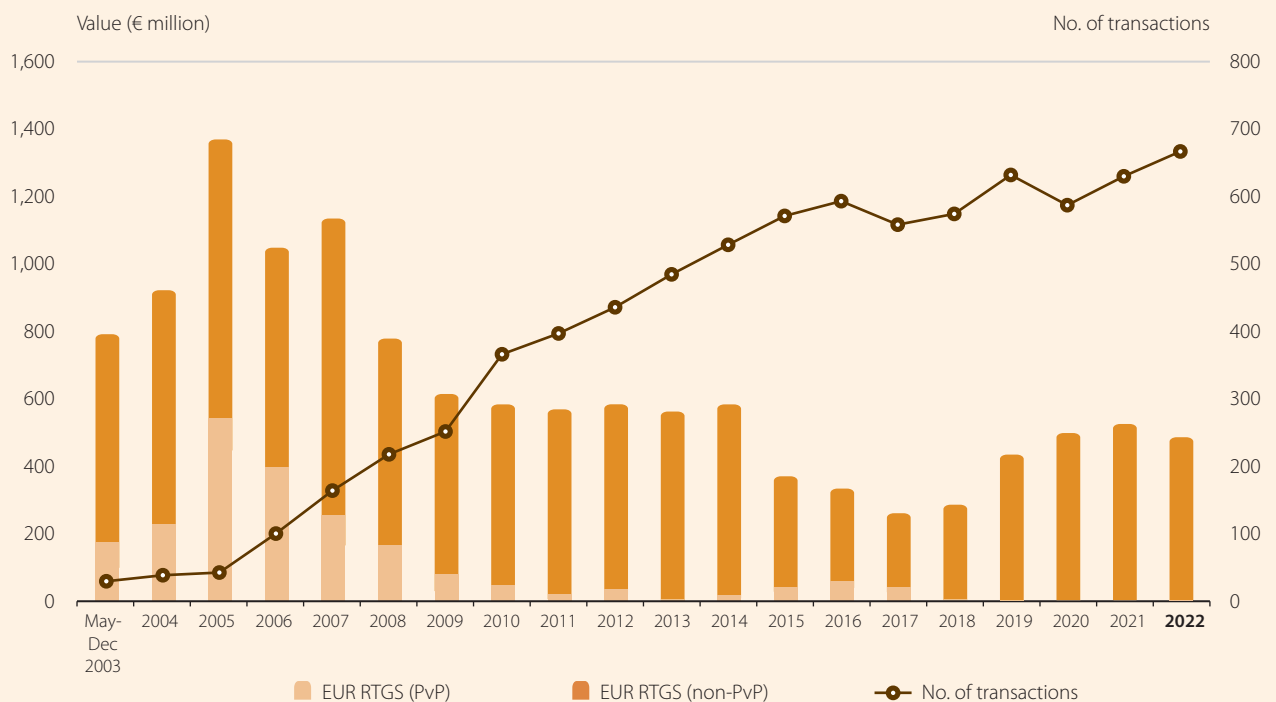


Chart 7 Euro RTGS system average daily turnover



International Financial Centre

Table 1 RTGS systems for other currencies

RTGS systems	Launch date	Settlement institution or Clearing Bank	Number of participants at the end of 2022	Average daily turnover in 2022	Average daily transactions in 2022
Renminbi RTGS system	June 2007	Bank of China (Hong Kong) Limited	Direct: 211	RMB1,654.0 billion	31,481
US dollar RTGS system	August 2000	The Hongkong and Shanghai Banking Corporation Limited	Direct: 113 Indirect: 97	US\$51.7 billion	27,004
Euro RTGS system	April 2003	Standard Chartered Bank (Hong Kong) Limited	Direct: 37 Indirect: 18	€487 million	668

Like the Hong Kong dollar FPS, the renminbi FPS (as an extension of renminbi CHATS) has been operating smoothly since inception in September 2018, with a daily average real-time payment transaction value of RMB205 million (938 items) in 2022.

Payment-versus-payment

Payment-versus-payment (PvP) is a settlement mechanism for foreign exchange transactions, ensuring payments involving two currencies are settled simultaneously. In Hong Kong, six cross-currency PvP links have been established among the Hong Kong dollar, renminbi, US dollar and euro RTGS systems.

Hong Kong's US dollar RTGS system has also established three cross-border PvP links, with Malaysia's ringgit RTGS system in 2006, Indonesia's rupiah RTGS system in 2010 and Thailand's baht RTGS system in 2014. PvP greatly improves settlement efficiency and eliminates settlement risk arising from time lags in settlements and time zone differences, known as Herstatt risk. In 2022, the transaction values of Hong Kong dollar, renminbi, US dollar and euro-related PvP transactions amounted to approximately HK\$12,714 billion, RMB11,392 billion, US\$4,820 billion and €6.5 million respectively.

To further promote PvP adoption, the PvP settlement mechanism will be enhanced to enable US dollar-renminbi foreign exchange transactions to be settled on a multilateral netting basis as scheduled on CHATS, apart from the current gross mode. This enhancement to be launched in 2023 will provide CHATS members with a means to net their funding obligation for the aforementioned PvP transactions, enabling them to manage their liquidity and foreign exchange settlement risk with greater ease.

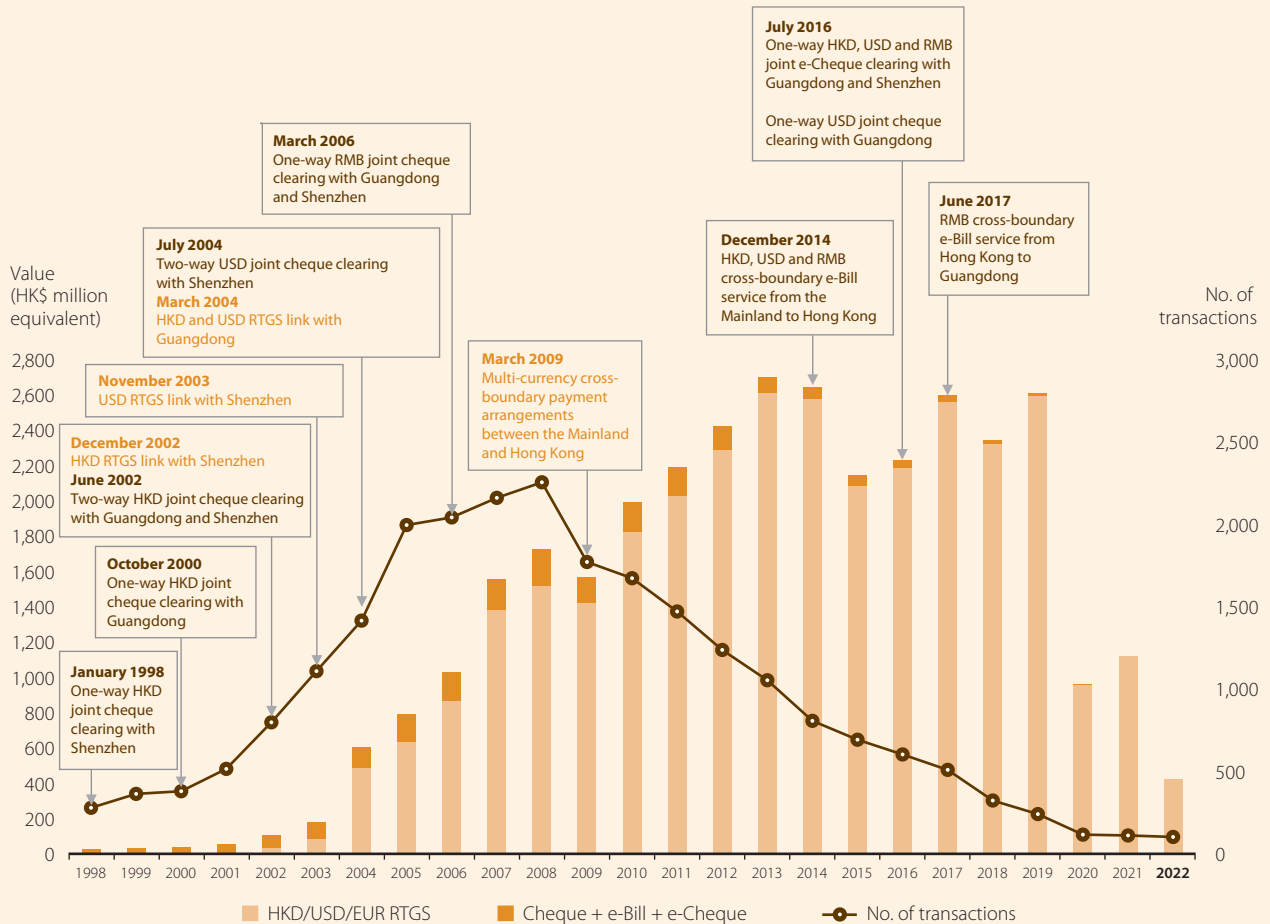
Payment links with the Mainland

The HKMA works closely with Mainland authorities to provide efficient cross-boundary payment links (Chart 8). In 2022, the average daily turnover of various system links, including RTGS cross-boundary links with Mainland's Domestic Foreign Currency Payment Systems, recorded a total value equivalent to around HK\$0.4 billion. The Hong Kong dollar and US dollar RTGS system links with Shenzhen and Guangdong handled more than 7,000 transactions, with a total value equivalent to HK\$63.8 billion.

The joint cheque-clearing facilities provided a clearing service for cheques drawn on banks in Hong Kong and presented in Shenzhen and Guangdong. In 2022, such facilities processed about 8,800 Hong Kong dollar, renminbi and US dollar cheques, with a total value equivalent to around HK\$0.7 billion.

International Financial Centre

Chart 8 Average daily turnover in cross-boundary arrangements with the Mainland



Payment links with Macao

The one-way joint clearing facility between Hong Kong and Macao was launched in 2007 for Hong Kong dollar cheques, and in 2008 for US dollar cheques. In 2022, Hong Kong dollar cheques and US dollar cheques amounting to about HK\$6 billion and about US\$24 million respectively were cleared. To foster financial co-operation between Hong Kong and Macao and facilitate Hong Kong dollar payment flow, a new service called the “HKD RTGS linkage between Hong Kong and Macao”, which links the Hong Kong dollar CHATS in Hong Kong and the Hong Kong dollar RTGS system in Macao, was launched on 31 October.

International Financial Centre

Debt securities settlement system

The CMU provides an efficient, multi-currency clearing, settlement and depository service. Through the CMU's linkages with international and regional central securities depositories (CSDs), investors outside Hong Kong can hold and settle securities lodged with the CMU, while Hong Kong investors can hold and settle foreign securities held with CSDs outside Hong Kong. In 2022, the CMU processed an average daily value of HK\$23.9 billion in 213 secondary market transactions (Chart 9). The outstanding amount of the debt securities lodged with the CMU at the end of the year reached a 10-year record high, with the outstanding amount of Exchange Fund Bills and Notes, Government bonds and debt securities issued by the public and private sectors standing at HK\$1,207.5 billion, HK\$266.6 billion and HK\$1,306.8 billion equivalent respectively (Chart 10).

During 2022, the CMU introduced the Collateralised Lending Service to facilitate the primary issuance of bonds lodged with the CMU. The service is free of charge for intraday lending and covers the renminbi, HK dollar, US dollar and euro in the form of a repurchase (repo) arrangement, with a borrowing limit equivalent to the size of the primary bond issuance. This service has successfully assisted member institutions to obtain intraday liquidity support and to mitigate funding costs during primary bond issuance.

In addition, a new CMU website (<https://www.cmu.org.hk>) was launched in 2022 to provide the industry and public with a quick and convenient means of searching for useful bond market information as well as CMU service updates. The website also introduced the Securities Search and Member Search functions to further facilitate daily operation of CMU participants.

Chart 9 CMU average daily turnover

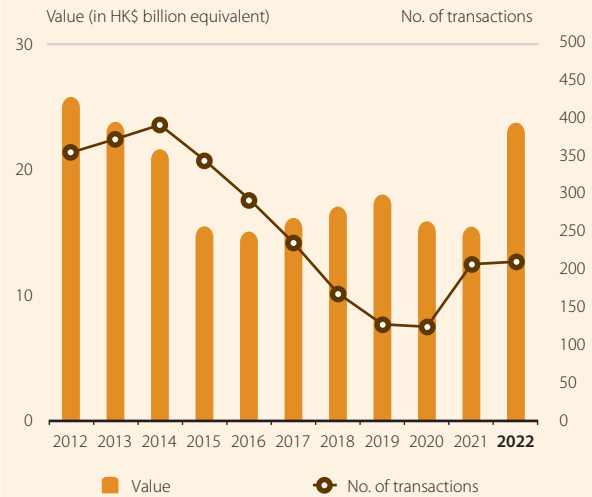
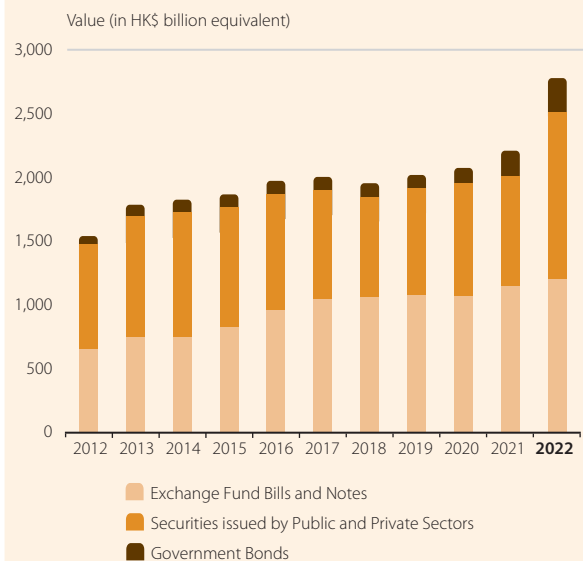


Chart 10 Outstanding amount of CMU issues



International Financial Centre

To help Hong Kong capitalise on the further opening up of the Mainland debt market and to support new business initiatives, the HKMA started to upgrade the CMU system by introducing the CMU New Platform in phases. In 2022, CMU Open API was implemented successfully as the first major deliverable of the CMU New Platform, enabling a more straight-through processing between the CMU and the Mainland CSDs. With a view to better serve the market participants, further deliverables and enhancements from the CMU New Platform are being planned for launch in 2023. To raise the profile and recognition of the CMU in the financial community so as to promote the CMU's further development as an international CSD with a focus on renminbi securities, various marketing activities have been carried out, including participation in conferences and seminars organised by international and local organisations, publication of CMU newsletters and organisation of briefings for market participants.



Panel session on "Unprecedented Challenges and Creative Responses" at the 24th General Meeting of the Asia-Pacific CSD Group (ACG) in Busan, South Korea

Over-the-counter derivatives trade repository

By the end of 2022, the HKTR system had recorded 3,956,374 outstanding transactions, compared with 3,251,179 in 2021. The HKMA participated in a number of international discussions and working groups on reporting standards for trade repositories to keep abreast of relevant developments and ensure the HKTR continued to meet international standards and best practices.

Hong Kong's retail payment industry

The HKMA promotes the safety and efficiency of the retail payment industry by implementing the regulatory regime for SVFs and RPSs in accordance with the PSSVFO. Under the PSSVFO, the HKMA is empowered to license SVF issuers, designate important RPSs and discharge supervisory and enforcement functions.

Stored value facilities (including e-wallets, prepaid cards)

The HKMA regulates the SVF licensees (Table 2) under a risk-based approach, taking into account the supervisory experience accumulated since the inception of the SVF licensing regime and relevant market developments.

Table 2 Register of SVF licensees

(in alphabetical order) (as at 31 December 2022)

SVF Licensees

33 Financial Services Limited
 Alipay Financial Services (HK) Limited
 Autotoll Limited
 ePaylinks Technology Co., Limited
 HKT Payment Limited
 Octopus Cards Limited
 PayPal Hong Kong Limited
 RD Wallet Technologies Limited
 TNG (Asia) Limited
 Transforex (Hong Kong) Investment Consulting Co., Limited
 UniCard Solution Limited
 WeChat Pay Hong Kong Limited
 Yintran Group Holdings Limited

Licensed Banks (currently issuing or facilitating the issue of, or with no objection from the HKMA for issuing or facilitating the issue of, SVFs)^a

Bank of China (Hong Kong) Limited
 Bank of Communications (Hong Kong) Limited
 Dah Sing Bank, Limited
 Hongkong and Shanghai Banking Corporation Limited (The)

a. Pursuant to Section 8G of the PSSVFO (with reference to Section 2 of the PSSVFO and also Section 2(1) of the Banking Ordinance), a licensed bank is regarded as being granted a licence.

International Financial Centre

During the year, the HKMA continued to follow up with SVF licensees on their progress in implementing enhancements to account structure and opening requirements, and provided supervisory guidance to the industry on various key issues such as the rolling out of new functions and services. In addition, the HKMA promoted public awareness of issues related to usage and regulation of the SVFs.

The HKMA also provided necessary supervisory guidance to the SVF industry to, among other things, help SVF licensees improve the efficiency and effectiveness of their control systems, including in the areas of corporate governance, float protection, payment security, and anti-money laundering and counter-financing of terrorism controls.

In support of the new round of the Consumption Voucher Scheme announced in the Financial Secretary's 2022–23 Budget in which two additional SVF licensees were appointed by the Government to participate, the HKMA actively co-ordinated and promoted dialogues and co-operation between the relevant Government parties and the SVF licensees appointed for the scheme.

The number of SVF accounts stood at 61.5 million as at the end of 2022. In the fourth quarter, 1.9 billion transactions totalling HK\$161.4 billion were recorded (Chart 11).

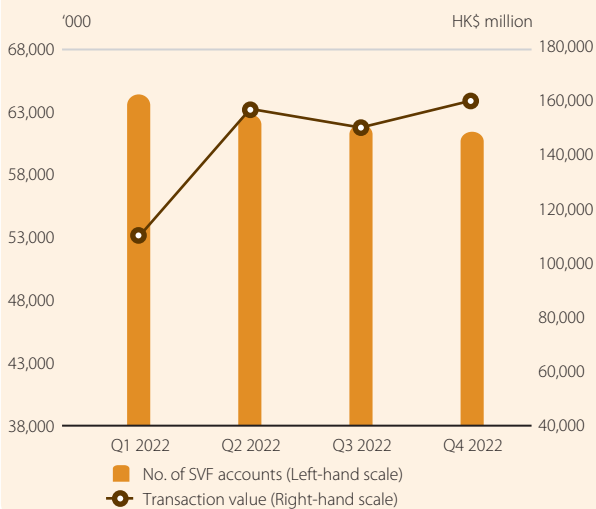
Retail payment systems

In accordance with the PSSVFO, the Monetary Authority has designated six RPSs, which process payment transactions involving participants in Hong Kong, on the grounds that proper functioning of these systems is of significant public interest (Table 3). The HKMA adopts a risk-based approach in the oversight of the designated RPSs, which are required under the PSSVFO to operate in a safe and efficient manner. During the year, the HKMA also issued additional guidance to the designated RPSs to promote better management of risks arising from data breaches that occurred at TSPs of the participants of the designated RPSs.

Table 3 System operators of designated RPSs
(in alphabetical order) (as at 31 December 2022)

American Express
EPS Company (Hong Kong) Limited
Joint Electronic Teller Services Limited
Mastercard
UnionPay International
Visa

Chart 11 Growth trend of the SVF industry in 2022



International Financial Centre

Crypto-assets, particularly stablecoins

In October, the Government and financial regulators issued the Policy Statement on Development of Virtual Assets in Hong Kong, setting out its policy stance and approach towards developing a vibrant sector and ecosystem for crypto-assets in the city, as well as its plan to put in place timely and necessary guardrails based on the principle of “same activity, same risks, same regulation”. In support of the Government’s work towards providing a facilitating environment for sustainable and responsible development of the crypto-asset sector in Hong Kong, the new Digital Finance Division was formed under the Monetary Management Department in October to better co-ordinate the HKMA’s work in this regard.

In January 2022, the HKMA issued a discussion paper on crypto-assets and stablecoins, setting out the HKMA’s thinking on the relevant regulatory approach and inviting views from stakeholders. The feedback received indicated broad support for the HKMA’s proposal of regulating stablecoins by taking an agile and risk-based approach. In January 2023, the HKMA issued the conclusion to the discussion paper, summarising the feedback received in relation to the paper as well as the HKMA’s relevant responses, and setting out the expected regulatory scope, key regulatory requirements and next steps.

During 2022, the HKMA also actively contributed to the international work on developing appropriate regulatory standards and recommendations on stablecoins, especially those of the FSB and major standard-setting bodies.

Electronic cheques

The use of electronic cheques (e-Cheques) was steady in the past year. The Government adopted e-Cheques to disburse subsidies to eligible employers under the Employment Support Scheme from June to November. To further promote wider adoption of e-Cheques, the HKMA has been working closely with TSPs to explore the use of an e-Cheque Open API service to facilitate presentment of cross-boundary e-Cheques on the Mainland.

International Financial Centre

Hong Kong Academy of Finance

The Hong Kong Academy of Finance (AoF)⁹ was set up in June 2019 to serve as a centre of excellence for developing financial leadership and a repository of knowledge in monetary and financial research, including applied research. In 2022, the AoF's leadership development and research efforts focused on key contemporary developments in the financial sector, including fintech and digitalisation; green finance and environmental, social and governance (ESG) issues; and the GBA and the Mainland.

A diverse range of activities was organised under the AoF's Leadership Development Programme. Seminars and discussion panels in virtual and hybrid format were held, including four sessions of the Distinguished Speakers Series featuring world-renowned speakers¹⁰. The discussions covered global economic and geopolitical developments and financial market issues, as well as the speakers' personal stories of success. The AoF also co-organised a number of events with different organisations, including the Government's Civil Service College, the Insurance Authority and CPA Australia. In particular, in collaboration with the HKMA, the AoF co-organised the high profile "Conversations with Global Investors" seminar on 3 November, as part of the Global Financial Leaders' Investment Summit.

The AoF launched the Financial Leaders Programme in 2022, which aims to inspire financial talents, equip them with a mindset to lead and look at issues from a macro perspective, and expand their networks. The inaugural (2022) cohort graduates comprise 19 promising future financial leaders from diverse backgrounds¹¹. During the nine-month programme, the cohort participated in over 30 discussion sessions with top leaders in financial services and other sectors on various issues pertinent to the continuous development of Hong Kong's financial industry. Activities of the 2023 Programme will begin in April 2023.



During an AoF seminar, Mr Neil Shen, Founding and Managing Partner of Sequoia China, unveils his secrets of success in discovering hidden gems



Global financial leaders speak at the "Conversations with Global Investors" seminar at the Investment Summit

⁹ The AoF is set up with full collaboration amongst the HKMA, the SFC, the Insurance Authority and the Mandatory Provident Fund Schemes Authority. It brings together the strengths of academia, the industry, professionals and the regulatory community to develop financial leadership and promote research collaboration.

¹⁰ Speakers of the Distinguished Speakers Series included Baroness Shriti Vadera (Prudential), Professor Michael Spence (Nobel Laureate), Lord Mervyn King (former Governor of the Bank of England) and Mr Neil Shen (Sequoia China).

¹¹ The full list of 2022 graduates is available at the AoF website (<https://www.aof.org.hk/flp/participants/2022-cohort>).

International Financial Centre

The AoF held its second Fellowship Conferment Ceremony on 14 December, conferring Fellowships on three distinguished leaders in the field of finance who have made outstanding contributions to Hong Kong. They are Dr Norman T.L. Chan, Professor Edward K.Y. Chen and Dr David Y.K. Wong.

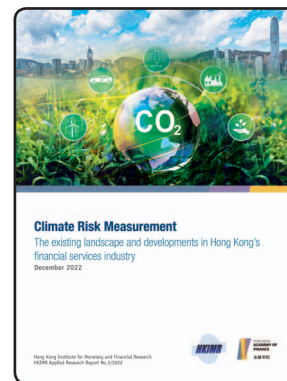
During the year, the AoF completed the first three-year periodic review of its Membership and took steps to expand its membership and recruit more up-and-coming talents to create a pipeline of future leaders.

To benefit a wider audience, most of the AoF's events were livestreamed online, and some of them were broadcast to online financial platforms in the Mainland. This not only attracted a much larger audience from within and outside Hong Kong (sometimes reaching more than one million views in the Mainland), but also improved the recognition of the AoF and enhanced the reputation of Hong Kong as an international financial centre. The AoF continued to publicise its activities digitally through its YouTube channel, website and quarterly newsletters, and social media channels to establish itself as a reputable platform for knowledge exchange and insights on economic and financial issues, particularly those related to Hong Kong and the Mainland.

On the research front, during 2022, the Hong Kong Institute for Monetary and Financial Research (HKIMR), the research arm of the AoF, published three applied research reports on (1) demographic changes and long-term asset markets in Hong Kong, (2) COVID-19's impact on the operational resilience of Hong Kong's financial services industry and (3) the existing landscape and developments of climate risk measurement in Hong Kong's financial services industry. In collaboration with the Alliance for Green Commercial Banks, the HKIMR released a thought leadership paper on the definitions, measurement, current practices and regulatory oversight of climate risk in the financial services industry. In addition, the HKIMR published four applied research papers covering topics including fintech, ESG and market microstructure. All research findings were widely disseminated to local and international market participants, regulators and academics through various channels. The response from the financial community on the research outputs was positive and favourable.



The AoF Board confers Fellowships on three distinguished financial leaders, namely Dr Norman T.L. Chan (fourth from left), Professor Edward K.Y. Chen (fourth from right) and Dr David Y.K. Wong (third from right)



An applied research report on the existing landscape and developments of climate risk measurement in Hong Kong's financial services industry



A press conference on releasing the thought leadership paper on the definitions, measurement, current practices and regulatory oversight of climate risk in the financial services industry

International Financial Centre

International and regional co-operation Participation in the international financial community

The HKMA participates actively in central banking and regulatory forums to contribute to global financial stability.

The HKMA is a member of the FSB Plenary, the FSB Standing Committee on Assessment of Vulnerabilities and the FSB Standing Committee on Supervisory and Regulatory Cooperation. Under the FSB, the HKMA actively contributes to the work on non-bank financial intermediation (NBFI), financial innovation and benchmark transition, among other topics. It is a member of the FSB Steering Committee group on NBFI, which is charged with organising and providing strategic direction on NBFI-related initiatives within the FSB, as well as ensuring effective co-ordination with standard-setting bodies in this area. The HKMA also co-chairs the FSB's Non-bank Monitoring Experts Group, which publishes the annual Global Monitoring Report on NBFI. The report assesses global trends and risks from NBFI and is part of the FSB's policy work to enhance resilience of the NBFI sector. In other areas, the HKMA co-chairs the Financial Innovation Network under the FSB Standing Committee on Assessment of Vulnerabilities, which monitors and assesses financial innovations from a financial stability perspective. The HKMA also leads a drafting team under the FSB Standing Committee on Supervisory and Regulatory Cooperation to monitor progress and follow up on supervisory issues associated with benchmark transition.

The HKMA, as a member of the FSB Cross-border Payments Coordination Group and the Task Force on Cross-border Payments set up by the Committee on Payments and Market Infrastructures under the BIS, contributed to the development of building blocks and a G20 roadmap to address the challenges of the existing arrangement of cross-border payments.

The HKMA is also a member of the BIS, which aims to provide central banks with a forum for dialogue and broad international co-operation. The HKMA participates in BIS bimonthly meetings and various committees, including the Asian Consultative Council, the Markets Committee, the Committee on the Global Financial System, the Basel Committee and the Committee on Payments and Market Infrastructures.

The BIS opened its Representative Office for Asia and the Pacific, their first overseas office, in Hong Kong in 1998 to serve as a regional centre for the activities of the BIS in Asia. The HKMA maintains a close working relationship with the BIS regional office to promote international standards and best practices among the central banking community in Asia.

In 2019, the BIS Innovation Hub established one of the first BIS Innovation Hub Centres in Hong Kong. The Centre maintains close collaboration with the HKMA, and its current project focus areas are CBDC, open finance and green finance. As part of Innovation BIS 2025, the BIS' medium-term strategy, the re-orientation of the BIS Asian Office since 2019 has brought deeper engagement and closer collaboration with Asian central banks.

Separately, since 2021 the HKMA has been co-chairing the Policy and Standards Group which leads the Basel Committee's work on the development and implementation of common prudential standards. For details about the HKMA's participation in the Basel Committee, see the *Banking Stability* chapter on page 91.

International Financial Centre

Regional co-operation

The HKMA is committed to regional co-operative initiatives to promote financial stability in Asia and harness the region's collective voice in international financial affairs.

The HKMA continued to chair the EMEAP WGFM during 2022. The WGFM makes policy recommendations on central bank services as well as developments in the foreign exchange, money and bond markets, and promotes regional bond market development through the Asian Bond Fund (ABF) initiative.

As part of its WGFM chairmanship, the HKMA steered a study on bond market stress and policy responses in the EMEAP region during COVID-19, and co-ordinated a project to promote investment in green bonds through the ABF. The HKMA was also re-appointed chair of the EMEAP Study Group on Resolution, which supports knowledge sharing among regional authorities in relation to resolution in a cross-border context. In addition, the HKMA continued to prepare the Monetary and Financial Stability Committee's half-yearly Macro-Monitoring Report to assess the region's risks and vulnerabilities and the policy implications.

Supporting the Global Financial Safety Net

The pandemic and macroeconomic environment have highlighted the importance of the Global Financial Safety Net (GFSN) in safeguarding financial stability. As a member of the global financial community, Hong Kong maintains its commitment to strengthening the GFSN through participation in the International Monetary Fund (IMF) New Arrangements to Borrow (NAB)¹², ASEAN+3¹³ Chiang Mai Initiative Multilateralisation (CMIM)¹⁴ and the BIS Renminbi Liquidity Arrangement (RMBLA). The RMBLA is a new BIS liquidity facility announced in June that aims to provide additional liquidity access to participating central banks in times of market volatility. The HKMA was among the initial group of central banks in Asia and the Pacific that participated in the RMBLA.¹⁵

¹² The NAB is a stand-by loan facility set up in 1998 to provide supplementary resources to the IMF for lending purposes. Under the NAB, Hong Kong is prepared to extend loans to the IMF when additional resources are needed to deal with exceptional situations that pose a threat to the stability of international financial systems. Effective 1 January 2021, the IMF Executive Board approved doubling the NAB credit arrangement through to 2025.

¹³ ASEAN+3 comprises the 10 Association of Southeast Asian Nations (ASEAN) member countries (Brunei, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam), together with China, Japan and South Korea.

¹⁴ Effective March 2010, the CMIM became a regional financing mechanism that provides short-term US dollar support to member economies facing liquidity shortages. It has 27 participating parties, including the ministries of finance and central banks of the 13 ASEAN+3 countries plus the HKMA. The total access fund stands at US\$240 billion. Further enhancements were made to optimize the operation of the CMIM. In March 2021, the CMIM agreement was amended to increase the IMF de-linked portion from 30% to 40% of each member's maximum arrangement amount, and to institutionalise the use of local currencies, in addition to the US dollar, for CMIM financing on a voluntary and demand-driven basis.

¹⁵ The arrangement initially includes the Bank Indonesia, the Bank Negara Malaysia, the HKMA, the Monetary Authority of Singapore and the Banco Central de Chile, as well as the PBoC.