

Hong Kong is a globally competitive international financial centre. The implementation of the Smart Banking initiatives has been in good progress to further develop Hong Kong as a fintech hub. Capitalising on opportunities arising from the opening up of the Mainland financial markets, much headway has been made to promote financial collaboration in the Guangdong-Hong Kong-Macao Greater Bay Area, especially in easing Hong Kong residents' cross-border access to financial and banking services in the Area.

At the same time, much effort has been made to open up new opportunities to further strengthen the competitiveness of Hong Kong's financial platform, including infrastructure investment and financing, green finance and private equity funds. The Hong Kong Academy of Finance was set up to enhance Hong Kong's soft power in a sustainable manner.

In the central banking and regulatory community, the HKMA plays a leadership role in a number of regional and international committees, which is a clear recognition of Hong Kong's expertise and commitment to international work.

OVERVIEW

To strengthen Hong Kong's position as a fintech hub in Asia, the HKMA puts great effort into implementing the seven Smart Banking initiatives that were announced in September 2017, with an aim to facilitate the development and use of fintech in the banking and payment industries. The key progress of these initiatives during the year included:

- expanding the adoption of the Faster Payment System (FPS);
- facilitating the implementation of Phases I and II of the Open Application Programming Interface (Open API) Framework in the banking sector;
- further enhancing fintech research and talent development;
- stepping up cross-border collaboration in fintech;
- granting eight virtual bank licences;
- facilitating the industry's increasing use of Fintech Supervisory Sandbox (FSS) 2.0 for launching fintech initiatives; and
- further facilitating the adoption of regulatory technology (Regtech) through the Banking Made Easy initiative.

The HKMA Fintech Facilitation Office (FFO), together with the banking departments of the HKMA, plays a pivotal role in driving the implementation of these initiatives.

Hong Kong plays an indispensable role in facilitating international investors' allocation of renminbi assets, with its unparalleled access to the onshore markets through the Stock Connect and Bond Connect schemes. This was evident by the tripling of the number of registered investors and daily turnover under Bond Connect over the past year. Further enhancements have been introduced to both Bond Connect and Stock Connect, providing more convenience and flexibility for international investors to invest in onshore securities in the Mainland. The HKMA also worked closely with Mainland authorities to explore and implement a series of financial facilitation measures for Hong Kong residents to access financial and banking services across the border in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA), including a prospective, two-way wealth management connect scheme. Hong Kong maintains a firm foothold as the global hub for offshore renminbi business. According to the Bank for International Settlements (BIS) Triennial Survey of Foreign Exchange (FX) and Derivatives Market Turnover, Hong Kong continued to be the largest offshore renminbi FX centre in the world.

Continuous efforts were put into opening up new opportunities to further enhance the competitiveness of Hong Kong's financial platform. To promote the development of the fund business in Hong Kong, the HKMA worked closely with the Government and industry to provide a more favourable tax and regulatory environment for fund formation. A number of large-scale events and targeted outreach activities were organised to promote Hong Kong as a hub for green finance, infrastructure investment and financing and corporate treasury centres (CTCs). In an effort to enhance Hong Kong's soft power, the Hong Kong Academy of Finance (AoF) was set up in June to develop financial leadership and promote research collaboration.

In the central banking and regulatory community, the HKMA plays a leadership role in a number of regional and international committees. The HKMA chaired the Standing Committee on Supervisory and Regulatory Cooperation (SRC) of the Financial Stability Board (FSB)¹ until 31 August 2019. Currently, the HKMA is chairing the Supervision and Implementation Group (SIG) of the Basel Committee on Banking Supervision (Basel Committee)², and the Working Group on Financial Markets (WGFM) established under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)³. The HKMA is also co-chairing the Non-Bank Monitoring Experts Group (NMEG) of the FSB with the US Securities and Exchange Commission.

The safe and efficient operation of Hong Kong's financial infrastructure lays a solid foundation for Hong Kong's role as an international financial centre. The four interbank Real Time Gross Settlement (RTGS) systems, the Central Moneymarkets Unit (CMU) and the Hong Kong Trade Repository (HKTR) achieved 100% system availability in 2019, beating the target of 99.95%. Through its accounts set up with the two Mainland central securities depositories, the CMU facilitates the settlement of transactions conducted under Bond Connect Northbound Trading and the holding of Mainland debt securities on behalf of relevant CMU members.

¹ The FSB was established in April 2009 as the successor to the Financial Stability Forum to address vulnerabilities in global financial systems, and to develop and promote the implementation of effective regulatory, supervisory and other policies in the interest of financial stability. Its membership comprises senior representatives of national financial authorities (central banks, regulatory and supervisory authorities, and ministries of finance), international financial institutions, standard-setting bodies, and committees of central bank experts.

- ² The Basel Committee is the primary global standard setter for the prudential regulation of banks and provides a forum for regular co-operation on banking supervisory matters. Its 45 members comprise central banks and bank supervisors from 28 jurisdictions.
- ³ The EMEAP is a co-operative forum of 11 central banks and monetary authorities in the East Asian and Pacific region, comprising the Reserve Bank of Australia, the People's Bank of China, the Hong Kong Monetary Authority, Bank Indonesia, the Bank of Japan, the Bank of Korea, Bank Negara Malaysia, the Reserve Bank of New Zealand, Bangko Sentral ng Pilipinas, the Monetary Authority of Singapore, and the Bank of Thailand.

The FPS, which serves as an extension of Hong Kong dollar RTGS system to enable the public to make instant retail fund transfers and payments across different banks and stored value facilities (SVFs) on a round-the-clock basis, ran smoothly in its first year of operation. Users' adoption of the facility had increased steadily, as manifested in the four million registrations and tripling of transaction volumes by the end of 2019. The FPS brings new opportunities to the retail payment industry and promotes fintech innovation.

To ensure the general safety and efficiency of the local retail payment industry, the HKMA has designated and is overseeing a total of six retail payment systems (RPSs) under the Payment Systems and Stored Value Facilities Ordinance (PSSVFO). The HKMA also issued two new SVF licences in May, bringing the total number of SVF licensees to 18. SVF licensees continued to launch new products and services actively during the year to diversify customer choices and enhance user experience.

REVIEW OF 2019

Hong Kong as a Fintech Hub in Asia

Smart Banking initiatives

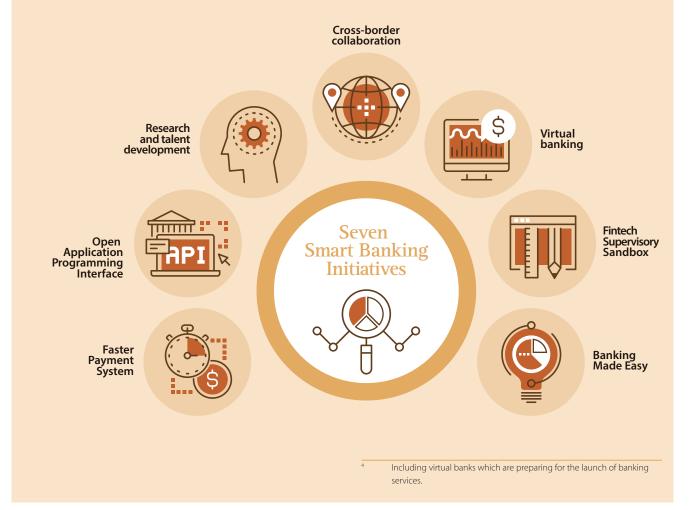
The seven Smart Banking initiatives were announced by the HKMA in September 2017 with the aim of helping the banking sector achieve higher standards of operation and embrace the enormous opportunities brought about by the convergence of banking and technology. During the year, considerable progress was made in implementing these initiatives and transforming the fintech ecosystem of Hong Kong.

Faster Payment System



The launch of the FPS in September 2018 was a major milestone in the financial infrastructure development of Hong Kong in the digital era. The FPS further promotes the adoption of e-payment in

Hong Kong by providing efficient and convenient payment services to the general public and corporates. Since the launch of the FPS, the number of participating service providers had increased to 30 banks⁴ and 11 SVFs, with the addition of nine banks and one SVF, by the end of 2019.



Usage of the FPS has also grown steadily. As of 31 December 2019, the FPS recorded four million registrations (Chart 1) and processed 44 million transactions involving an aggregate amount of HK\$748.5 billion and RMB17 billion. In December 2019, average daily turnover reached 168,000 transactions worth HK\$2.4 billion and RMB38 million (Chart 2), as compared with 51,000 transactions during its first full month of operation in October 2018.

Faster Payment System recorded:

- 4 million registrations as of 31 December 2019
- 44 million transactions as of 31 December 2019
- 168,000 transactions worth HK\$2.4 billion and RMB38 million of average daily turnover in December 2019

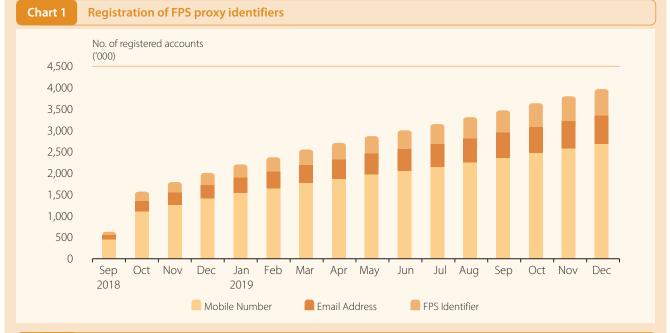
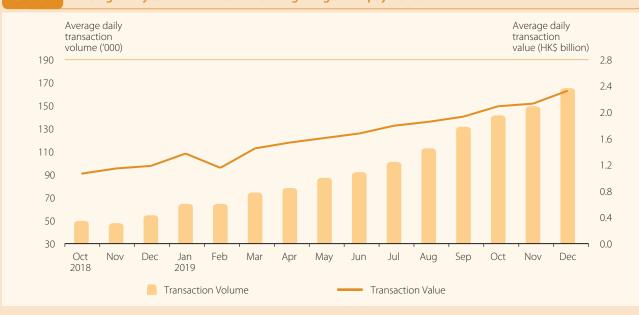


Chart 2

Average daily turnover of real-time Hong Kong dollar payments



The HKMA works with the industry to extend FPS usage from person-to-person payments to bill payments and other merchant payments. For example, enhancements were made to enable merchants to use a variety of proxy identifiers and accept partial or over-payments via a QR code. A technical specification was developed to facilitate the invocation of a mobile banking or SVF e-wallet mobile application (app) from a business mobile app for FPS payment. This would greatly improve customer experience in making merchant and business payments via the FPS using mobile devices.

The HKMA also works closely with relevant Government departments to assist them in using the FPS to accept bill payments from the public. From 1 November, bills issued by the Inland Revenue Department, the Rating and Valuation Department and the Water Supplies Department were printed with an FPS QR code so that the public could scan the QR code easily with supporting mobile banking or SVF e-wallet apps to make payment. The HKMA will continue working with various Government departments and public bodies to explore other potential use cases which can make it convenient for the public to make payment via the FPS.

To raise public awareness of the FPS, the HKMA has developed a new series of education and publicity materials, such as Announcements in the Public Interest for broadcast on television and radio, as well as videos and electronic banners for digital platforms. The HKMA also participated in trade fairs to promote the FPS to small and medium-sized enterprises (SMEs) and corporates. Various FPS participating banks and SVFs launched promotion campaigns and offered incentives to encourage customers to register with the FPS and to use it for fund transfer and bill payment. In addition, the HKMA engaged a number of industry organisations and institutions to provide briefings on the FPS so as to introduce its functionalities and the potential benefits it may bring to different businesses in collecting and making payment.



The Government has adopted FPS for bill payments on taxes, rates and Government rent and water charges.

• Open Application Programming Interface



The HKMA continued to facilitate the banking sector's development and adoption of Open API in accordance with the four-phase approach of the Open API Framework. Under Phase I,

20 retail banks opened up over 500 Open API endpoints in January, covering information of banking products and services. Under Phase II, the banks opened up in October over 300 APIs to support applications for banking products and services.

Research and talent development



On trade finance, a proof-of-concept (PoC) study on linking up eTradeConnect⁵ and we.trade⁶ was completed in the first quarter of the year. In November, a Memorandum of Understanding (MoU) was signed between the subsidiaries of Hong Kong Interbank Clearing Limited and the Institute of Digital Currency of the People's Bank of China (PBoC) to conduct a PoC study on linking up eTradeConnect and the PBoC Trade Finance Platform to provide firms in both Hong Kong and Mainland China with more convenient trade finance services.

On Central Bank Digital Currency (CBDC), the HKMA and the Bank of Thailand embarked on a joint research project named Project Inthanon-LionRock to study the application of CBDC to cross-border payments, with a view to facilitating HKD-THB payment-versus-payment (PvP) among banks in Hong Kong and Thailand.



HKMA Executive Director (Financial Infrastructure), Mr Colin Pou (first from left), together with Director-General of the Institute of Digital Currency of the PBoC, Mr Mu Changchun (first from right), witness the signing ceremony of an MoU to conduct a PoC trial on linking up eTradeConnect and the PBoC Trade Finance Platform. The MoU is signed between Chief Executive Officer of the Hong Kong Trade Finance Platform Company Limited, Ms Haster Tang (second from left), and Deputy Director-General of the Institute of Digital Currency of the PBoC and Director of the Shenzhen Fintech Institute, Mr Di Gang (second from right).

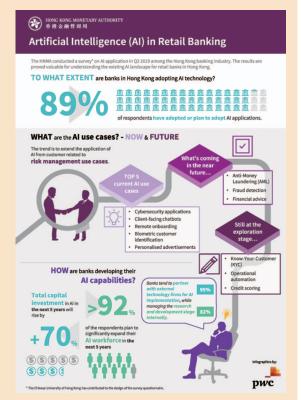
eTradeConnect is a blockchain-based trade finance platform launched officially in October 2018 under the facilitation of the HKMA. It is fully funded by a consortium of 12 major banks in Hong Kong.

we.trade is a European blockchain-based trade finance platform.

On artificial intelligence (AI), the HKMA carried out a study on the application of AI technology in the Hong Kong banking industry. Key findings of an industry-wide AI survey were published in November, followed by the issuance of the full report, titled "Reshaping Banking with Artificial Intelligence", in December.



The report "Reshaping Banking with Artificial Intelligence" is published in December.



A fact sheet is published to highlight the key facts and figures derived from a survey on the use of AI in the Hong Kong banking industry.

In an effort to enlarge the fintech talent pool, the HKMA continued to run the Fintech Career Accelerator Scheme 2.0 in collaboration with its strategic partners to nurture young talent at various stages of their career development. Over 220 students benefited from the programme last year.

Cross-border collaboration



The HKMA continued to strengthen fintech collaboration with Shenzhen. In particular, the HKMA sponsored for the second time the Shenzhen Summer Internship Programme, enabling

50 Hong Kong students to work at renowned firms in Shenzhen for six weeks to experience the local fintech ecosystem. The HKMA also co-organised with the Shenzhen Municipal Financial Regulatory Bureau the Shenzhen-Hong Kong Fintech Award for the third consecutive year. Furthermore, both parties regularly attended summits and conferences held by each other.



HKMA Senior Executive Director, Mr Edmond Lau, gives opening remarks at the 2019 China (Shenzhen) Fintech Global Summit.

In order to strengthen cross-border fintech collaboration among different jurisdictions, the HKMA organised a high-level fintech roundtable titled "From Mutual Understanding to Global Collaboration" in January. About 45 senior representatives from 18 jurisdictions attended the event. The HKMA, as one of the founding members, formally established the Global Financial Innovation Network (GFIN)⁷ in January together with an international group of 28 financial regulators and related organisations. GFIN seeks to create a framework for collaboration among financial services regulators on innovation-related topics. A cross-border pilot test was then launched for firms to test their innovative products and services across international markets. The HKMA also signed fintech MoUs with two overseas authorities during the year, namely the Bank of Thailand and the French supervisory authority, Autorité de Contrôle Prudentiel et de Résolution, to foster fintech collaboration.

Under the facilitation of the HKMA, the BIS commenced operation of its first Innovation Hub Centre in Hong Kong in November. The BIS Innovation Hub is set up to foster international collaboration on innovative financial technology within the central banking community. The establishment of the Hong Kong Centre is a clear recognition of Hong Kong's leading role in the development and application of innovative financial technologies, and is expected to be conducive to the further development of the fintech ecosystem in Hong Kong. The HKMA will contribute to the Centre's research by sharing local and regional experience in fintech development and facilitating its connections with the private sector, academia, other regulators, and government organisations.



HKMA's then Chief Executive, Mr Norman Chan (right), and General Manager of the BIS, Mr Agustín Carstens, sign the Operational Agreement to mark the collaboration between the two organisations on the BIS Innovation Hub Centre in Hong Kong.

Virtual banking



The HKMA granted licences to eight virtual banks in the first half of 2019 following comprehensive due diligence reviews and careful examination of their business plans. The licensees were

from diverse backgrounds ranging from local and international fintech and technology firms to established banking groups. Since granting the licences, the HKMA has maintained close dialogue with the virtual banks to monitor their preparation and readiness for business commencement. One virtual bank rolled out its services on a trial basis in the HKMA's FSS in December 2019.

Fintech Supervisory Sandbox

Use of the FSS increased steadily during the year.



As of end-2019, pilot trials of **103** fintech initiatives had been allowed in the FSS, compared with 42 at end-2018. The HKMA also received **406** requests to access the FSS

Chatroom and seek supervisory feedback at the early stage of fintech projects. Around **70%** of the requests were made by technology firms.

Banking Made Easy initiative



As part of the Banking Made Easy initiative, the HKMA updated and clarified regulatory requirements relating to remote on-boarding, online finance, and online wealth management. To promote the use of Regtech in the banking industry, the

HKMA organised a Regtech forum on anti-money laundering and counter-financing of terrorism (AML/CFT) in November. The forum attracted around 400 attendees from home and abroad, including bankers, financial regulators, and tech experts. The record of discussion was issued to communicate the next steps to the industry and the wider AML/CFT ecosystem. The HKMA also issued its first Regtech Watch newsletter to share with the industry noteworthy use cases of Regtech in the area of prudential risk management and compliance.

Industry liaison and outreach

Since its establishment in March 2016, the FFO has been playing 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 14 events, including six panel discussions and presentations during the Hong Kong Fintech Week 2019, attracting over 13,500 participants in all. The FFO also spoke at fintechrelated events and held meetings with other regulatory authorities, industry organisations, financial institutions, technology firms and start-ups.



HKMA Chief Executive, Mr Eddie Yue, gives a keynote speech at the Hong Kong Fintech Week 2019.



HONG KONG ACADEMY OF FINANCE

The AoF was set up in June by the HKMA in full collaboration with the Securities and Futures Commission (SFC), the Insurance Authority (IA), and the Mandatory Provident Fund Schemes Authority (MPFA). The mission of the AoF is to serve as: (i) a centre of excellence for developing financial leadership; and (ii) a repository of knowledge in monetary and financial research, including applied research.



The Inauguration Ceremony is officiated by Financial Secretary and AoF Honorary President, The Hon Paul Chan Mo-po (right), and HKMA's then Chief Executive and AoF's then Chairman, Mr Norman Chan.



More than 100 guests attend the Inauguration Ceremony.

The Inauguration Ceremony cum first Fellowship Conferment of the AoF was held on 26 June. It was attended by more than 100 guests from the financial industry, regulatory authorities and academia in Hong Kong. At the Ceremony, the AoF conferred Fellowship on 10 outstanding leaders in the field of finance who had made significant contributions to Hong Kong.



The AoF confers Fellowship on 10 distinguished financial leaders: (from left) The Hon Joseph Yam Chi-kwong; Dr Edmund Tse Sze-wing; Dr the Hon David Li Kwok-po; Dr the Hon Victor Fung Kwok-king; The Hon Mrs Laura Cha Shih May-lung; The Hon Paul Chan Mo-po (AoF Honorary President); Mr Norman Chan (AoF's then Chairman); Dr the Hon Moses Cheng Mo-chi; Mr Carlson Tong; Prof Lawrence Juen-yee Lau; Dr Anthony Neoh and Mr Peter T S Wong.

Since its establishment, 10 international financial leaders have joined the AoF as its International Advisers. Together with the AoF Fellows, they provide advice and guidance to the work of the AoF, in particular its Leadership Development Programme, and serve as speakers for the Programme.

AoF International Advisers

Mr Jaime Caruana

former Governor of the Bank of Spain and former General Manager of the BIS

Mr Laurence Fink

Chairman and Chief Executive Officer of BlackRock, Inc.

Mr David Rubenstein

Co-Founder and Co-Executive Chairman of The Carlyle Group

Ms Mary Schapiro

Vice Chair for Global Public Policy and Special Advisor to the Founder and Chairman of Bloomberg L.P., and former Chairman of the US Securities and Exchange Commission

Mr Stephen Schwarzman

Chairman, Chief Executive Officer and Co-Founder of The Blackstone Group L.P.

Professor Masaaki Shirakawa

former Governor of the Bank of Japan

Professor Michael Spence

Nobel Laureate in Economics, 2001 and Professor in Economics and Business at the New York University Leonard N. Stern School of Business

Mr Glenn Stevens

former Governor of the Reserve Bank of Australia

Mr Mark Tucker

Group Chairman of HSBC Holdings plc

Dr Zeti Akhtar Aziz

Group Chairman of Permodalan Nasional Berhad and former Governor of Bank Negara Malaysia

The AoF invites senior management and promising talent from financial institutions, professional firms, regulatory authorities and the academia to join as Members and to participate in its Leadership Development Programme. The Programme aims to groom future financial leaders by broadening Members' perspectives on global and inter-disciplinary issues. Top financial leaders from around the world are invited to speak and share their insights through seminar series, workshops and small group discussions.

Five distinguished speakers have delivered speeches under the Programme so far:

- Stephen Schwarzman, Chairman, Chief Executive
 Officer and Co-Founder, The Blackstone Group L.P.;
- Agustín Carstens, General Manager, BIS;
- Charles Kaye, Chief Executive Officer, Warburg Pincus;
- Timothy Geithner, President, Warburg Pincus; and
- Minouche Shafik, Director, London School of Economics and Political Science.

On the research front, the AoF endeavours to fill the gap in applied financial research in Hong Kong. The Hong Kong Institute for Monetary and Financial Research (HKIMR), as a subsidiary of the AoF, has expanded its scope of work to cover Applied Finance Research and Thought Leadership, in addition to its Monetary and Financial Economic Research activities. Such research aims to help the industry better grasp new trends in the financial world, and attempts to provide practical answers to issues of interest to both the industry and regulators. In order to achieve this goal, a new Council of Advisers for Applied Research has been appointed, comprising representatives from the local financial regulatory bodies, the financial industry and established local and overseas academics and researchers with the relevant expertise. This Council advises on Applied Research themes to be pursued by the HKIMR and steers its Applied Research activities. The following Applied Research and Thought Leadership projects are being undertaken:

On financial innovation:

- The impact of fintech innovation on the Hong Kong banking industry
- Artificial intelligence: What it means for the banking industry landscape, compliance and supervision

On green and sustainable finance:

 Developing Hong Kong into a global green bond hub

On institutional settings and market structure:

 The impact of algorithmic and high-frequency trading on market liquidity and volatility in Hong Kong.

Hong Kong as an Infrastructure Investment and Financing Hub



The HKMA Infrastructure Financing Facilitation Office (IFFO) is an effective and efficient platform in facilitating infrastructure investment and financing through Hong Kong. In May, the HKMA set up the Centre for Green Finance (CGF) under the IFFO to promote Hong Kong as the hub for green finance in Asia and to champion sustainability in infrastructure investment and financing.

able 1 List of IFFO partners as at 31 December 2019 (in alphabetical order)

China Investment Corporation	King & Wood Mallesons
China National Petroleum Corporation	KPMG
China State Construction Engineering Corporation Limited	Legg Mason Global Asset Management
China Three Gorges Corporation	Macquarie Group
China-Africa Development Fund	Malayan Banking Berhad
China-Britain Business Council	Marsh (Hong Kong) Limited
CITIC Capital	Mayer Brown
Citigroup	Mitsubishi Corporation (Hong Kong) Ltd.
City of London Corporation	Mitsui & Co. (Hong Kong) Ltd.
Clifford Chance	Mizuho Bank, Ltd.
CLP Group	Morgan Stanley
CNIC Corporation Limited	MTR Corporation Limited
Crédit Agricole Corporate and Investment Bank	MUFG Bank, Ltd.
CRRC Corporation Limited	Multilateral Investment Guarantee Agency, a member of the World Bank Group
Currie & Brown	National Pension Service
Deloitte China	OMERS
Eastspring Investments	Ontario Teachers' Pension Plan
Ernst & Young	Pinsent Masons
European Bank for Reconstruction and Development	PwC
Export-Import Bank of China (The)	Silk Road Fund
General Electric	Standard Chartered Bank
Global Infrastructure Facility	Standard Chartered Bank (Hong Kong) Limited
Global Infrastructure Hub	State Development & Investment Corp., Ltd.
Hong Kong Mortgage Corporation Limited (The)	State Grid Corporation of China
Hong Kong Trade Development Council	Sumitomo Mitsui Banking Corporation
Hongkong and Shanghai Banking Corporation Limited (The)	Taikang Asset Management Company Limited
HSBC Holdings plc	Teachers Insurance and Annuity Association of America
Industrial and Commercial Bank of China (Asia) Limited	TPG Capital
Industrial and Commercial Bank of China Limited	Willis Towers Watson
International Finance Corporation, a member of the World Bank Group	Xinjiang Goldwind Science & Technology Co., Ltd.
	Zurich Insurance Company Limited
	China National Petroleum Corporation China State Construction Engineering Corporation Limited China Three Gorges Corporation China-Africa Development Fund China-Britain Business Council CITIC Capital Citigroup City of London Corporation Clifford Chance CLP Group CNIC Corporation Limited Crédit Agricole Corporate and Investment Bank CRRC Corporation Limited Currie & Brown Deloitte China Eastspring Investments Ernst & Young European Bank for Reconstruction and Development Export-Import Bank of China (The) General Electric Global Infrastructure Hub Hong Kong Mortgage Corporation Limited (The) Hong Kong Trade Development Council Hongkong and Shanghai Banking Corporation Limited (The) HSBC Holdings plc Industrial and Commercial Bank of China (Asia) Limited International Finance Corporation,

The IFFO has brought on board its platform close to 100 global key industry stakeholders, including institutional investors and financiers, financial intermediaries, professional service firms, and project owners and developers (Table 1). In April, the HKMA and the China Export & Credit Insurance Corporation (SINOSURE) signed an MoU to make better use of Hong Kong's advantages, thereby attracting more commercial banks and Mainland corporates to use the Hong Kong platform for offshore infrastructure financing and investment.

The IFFO organised four seminars and roundtable discussions in the year, promoting information sharing and capacity building in infrastructure investment and financing.



HKMA's then Chief Executive, Mr Norman Chan (left), and Chairman of SINOSURE, Mr Song Shuguang, sign an MoU to establish a strategic framework of co-operation, with a view to facilitating the financing of infrastructure projects.



March 2019 — The IFFO and the IA jointly showcased the strategic roles of insurance and guarantee in project risk management at a seminar that shared infrastructure case studies featuring the viewpoints of both insurers and the insured on political and commercial risk insurance.



July 2019 — The HKMA co-hosted a second roundtable together with the State-owned Assets Supervision and Administration Commission of the State Council in Hong Kong. Senior executives of six central state-owned enterprises (CSoEs) and a number of key international institutional investors joined the discussion on how Hong Kong's financial and professional services could support CSoEs' investment and expansion.



May 2019 — The IFFO and the International Finance Corporation (IFC), a member of the World Bank Group, co-organised a seminar titled "ESG & Impact Investing: Creating Long-Term Value" with support from the Ministry of Finance of China.



October 2019 — The CGF under the IFFO co-organised with the IFC a two-day seminar titled "Greening Financial Institutions". The seminar, which brought together over 300 senior executives, highlighted how financial institutions were increasingly factoring in climate-related risks in various aspects of their work.

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



Bond Connect serves as a major channel for international investors to trade in the Mainland bond market using the market infrastructure and financial services in Hong Kong. Driven by the inclusion of renminbi bonds in major fixed income indices,

the number of registered investors under Bond Connect more than tripled from 503 at end-2018 to 1,601 at end-2019, while daily turnover also tripled to around RMB10.6 billion.



Bond Connect

1,601 investors at end-2019, with around **RMB10.6 billion** daily turnover during the year.

Several enhancements were made to the Connect schemes during the year. An additional electronic trading platform accessing Bond Connect was launched in January; the cut-off time for cash settlement under Bond Connect was further extended in April; a guidance on enhancements to the currency conversion arrangement under Stock Connect was issued in June to provide international investors with the choice of obtaining or hedging in onshore renminbi for their Stock Connect investments; and offshore investors could choose T+3 as the bond settlement cycle from August. These improvements offered more convenience and flexibility for investors under Bond Connect and Stock Connect, and drove the further inclusion of onshore assets in major financial indices.

The Outline Development Plan for the GBA was promulgated in February. It reaffirms Hong Kong's status as an international financial centre, the global offshore renminbi business hub, an international asset management centre, and a risk management centre. To support the increasing flow of people and goods in the GBA, financial facilitation measures were introduced, including cross-border usage of Hong Kong e-wallets and a pilot scheme for Hong Kong permanent residents to open Mainland bank accounts through attestation in a Hong Kong bank branch. In November, the Leading Group for the Development of GBA announced exploring a cross-boundary wealth management connect scheme. Hong Kong's position as the global hub for offshore renminbi business remains firmly intact. During the year, average daily turnover of Hong Kong's renminbi RTGS system rose to a record high of RMB1.13 trillion. According to SWIFT statistics, over 70% of global renminbi payments were consistently handled in Hong Kong. Renminbi trade settlement handled by Hong Kong banks reached RMB5.38 trillion in 2019, increased by 27.8% as compared with 2018. Notwithstanding uncertainties surrounding the renminbi exchange rate, renminbi customer deposits and outstanding certificates of deposit remained stable during the year, and stood at about RMB658.0 billion at year end. With the world's deepest offshore renminbi liquidity pool and the huge volume of renminbi financial activities, Hong Kong continued to be the largest offshore renminbi FX market globally, according to the BIS Triennial Survey of FX and Derivatives Market Turnover. The average daily turnover of renminbi FX transactions in Hong Kong rose 39.6% from US\$77.1 billion in April 2016 to US\$107.6 billion in April 2019, maintaining the lead over other renminbi centres. Renminbi financing activities also increased in 2019, with offshore renminbi bond issuance increasing 17.9% to RMB49.4 billion in 2019 and renminbi lending up 45.5% to RMB153.7 billion at end-2019. In 2019, the PBoC issued a total of RMB150.0 billion offshore bills in Hong Kong, of which RMB80.0 billion were outstanding as at the year end. The issuances expanded the spectrum of high-guality renminbi assets and improved the benchmark yield curve of renminbi bonds in Hong Kong.

- RMB1.13 trillion daily turnover of RMB RTGS system
- RMB5.38 trillion RMB trade settlement handled by Hong Kong banks
- RMB658.0 billion RMB customer deposits and outstanding certificates of deposit
- US\$107.6 billion daily turnover of RMB FX transactions in Hong Kong
- **RMB49.4 billion** offshore RMB bond issuance

The HKMA seeks to deepen financial collaboration with other overseas economies in offshore renminbi business and other areas of financial services, as well as to promote Hong Kong as the leading platform to tap into opportunities arising from Mainland's opening up, including the GBA development. The HKMA co-organised the Hong Kong-Paris Financial Seminar with Paris EUROPLACE in January and the eighth Hong Kong-London Financial Services Forum with the HM Treasury in May, and co-hosted the third Hong Kong-Switzerland Financial Dialogue with the Swiss State Secretariat for International Financial Matters in November. The HKMA also participated actively in various industry events in Hong Kong and overseas financial centres, including France and Switzerland.

Closer Economic Partnership Arrangement (CEPA)

In November, the Agreement Concerning Amendment to the CEPA Agreement on Trade in Services was signed. The amendment gave effect to measures to open up the financial sector that were announced by the Central Government earlier, with a view to ensuring the competitiveness of Hong Kong service providers in the Mainland market.

Hong Kong as a hub for corporate treasury centres

The HKMA promotes Hong Kong's advantages as an ideal CTC hub to Mainland and international corporates through industry events and meetings. In 2019, through the outreach effort, the HKMA identified around 10 more corporates at various stages of setting up CTC operations in Hong Kong, bringing the total number to 66 since the introduction of CTC tax regime in 2016.

Hong Kong as an asset and wealth management centre

The HKMA supports Hong Kong's development as an asset management hub through policies and outreach. During the year, various policy initiatives were rolled out to enhance the commercial attractiveness of the Hong Kong platform for private equity business. Since April, the eligibility of investment funds to enjoy profits tax exemption has been broadened to cover both onshore and offshore funds. The HKMA also worked closely with the Government to develop legislative proposals on establishing a limited partnership regime for private equity funds. Positive feedback had been received from an industry consultation conducted in the third quarter of 2019. According to statistics from the SFC, Hong Kong's asset and wealth management business amounted to HK\$23,955 billion as at 31 December 2018. Hong Kong continues to be Asia's largest private equity fund hub after Mainland China, with US\$159.6 billion of capital under management as of end-2019 according to the Asian Venture Capital Journal. At the same time, Hong Kong is the largest cross-border private wealth management hub in Asia with US\$1.3 trillion of cross-border wealth booked in 2018, according to the Boston Consulting Group's Global Wealth 2019 Report.

With rapid growth in the number of ultra-high-net-worth individuals in the Asia-Pacific region, family office (FO) business has experienced substantial expansion in recent years and can become an important driver for the further development of the private wealth management industry. To strengthen Hong Kong's position as an FO hub, the HKMA is working closely with other Government agencies to step up outreach efforts to FOs and industry stakeholders and deliver a one-stop shop service for FOs interested in establishing a presence in Hong Kong.

Hong Kong as a green finance hub

The HKMA reaches out to the international community to showcase Hong Kong's green finance platform and capabilities. In February, the HKMA collaborated with the Climate Bonds Initiative to launch the Hong Kong Green Bond Market Briefing Report, which showed that green bonds arranged and issued in Hong Kong reached US\$11 billion in 2018. In addition, events and targeted outreach activities were organised, including a study tour on issuing green bonds in Hong Kong held in collaboration with the PBoC and the Hong Kong Green Finance Association, attracting more than 120 representatives of potential Mainland China issuers. In May, the HKMA announced the launch of the CGF under the HKMA IFFO to provide a platform for technical support and experience sharing for the green development of the Hong Kong banking and finance industry. Following the CGF's launch, a capacity-building seminar for banks and other financial institutions was held in October in collaboration with the IFC.

Hong Kong's bond market development

Government Green Bond Programme

The Financial Secretary announced in the 2018-19 Budget the Government Green Bond Programme (GGBP) with a borrowing ceiling of HK\$100 billion. Following preparations for the relevant legislation and implementation, the inaugural green bond under the GGBP was issued in May, with an issuance size of US\$1 billion and a tenor of five years.



The inaugural issuance was well received by the global investment community, attracting orders exceeding **US\$4 billion** from **over 100** global institutional investors, which allowed the bond to be priced favourably.

Around half of the green bond was distributed to investors in Asia, and roughly a quarter each to Europe and the US. There was also a good mix of investor types, including banks, fund managers, insurers, and the public sector. The issuance set an important new benchmark for potential green bond issuers in Hong Kong and the region, and won several major industry awards, including the Asia Pacific Green/SRI Bond Deal of the Year by GlobalCapital and the Sustainable Deal for 2019 by FinanceAsia. It has also been included in the major global green bond indices in the market.

Government Bond Programme

During the year, the HKMA arranged eight tenders of institutional government bonds amounting to HK\$17.4 billion. By the end of 2019, the total amount of outstanding institutional bonds was HK\$91.3 billion.

The HKMA arranged in July the fourth issuance of a three-year Silver Bond, amounting to HK\$3 billion, to Hong Kong senior residents aged 65 or above. It attracted more than 56,000 applications with investment monies of over HK\$7.9 billion. The amount of retail bonds outstanding at the end of the year was HK\$8.8 billion.

International and regional co-operation International Monetary Fund's (IMF) Article IV Consultation

The HKMA continued to support the IMF Mission's work in the annual Article IV Consultation exercise, which was concluded in November. The IMF commended the resilience of Hong Kong's financial system and recognised that Hong Kong was well placed to navigate through both cyclical and structural challenges, given its significant buffers. The IMF reaffirmed its support for the Linked Exchange Rate System, which remained the appropriate arrangement for Hong Kong, anchoring the stability of its economy and monetary and financial system. The IMF commended Hong Kong's effort in strengthening the regulatory and supervisory framework for the safeguarding of financial stability. The IMF also affirmed Hong Kong's position as a regional trading hub, a global financial centre and one of the world's most open economies, and noted that the development of green finance and the GBA offered opportunities for Hong Kong to maintain its competitiveness as a global financial centre.

IMF New Arrangements to Borrow (NAB)

As an international financial centre and a member of the global financial community, Hong Kong maintains its commitment to strengthening the global financial safety net through its participation in the IMF NAB, 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 the international financial systems. In order to maintain the IMF's capacity to safeguard global financial stability, the NAB participants and the IMF agreed to increase the size of the credit arrangement on an equiproportional basis starting from 1 January 2021⁸, subject to formal ratification process.

Currently, the NAB has 40 participants, including the HKMA, with an overall size of SDR182.4 billion (about US\$251 billion), which will be increased to SDR364.7 billion on 1 January 2021. The HKMA's maximum contribution will increase from SDR340 million to SDR680 million.

Participation in international financial community

As a recognition of the HKMA's contribution to global financial stability, the former Chief Executive of the HKMA chaired the SRC of the FSB until 31 August. The SRC is charged with developing supervisory and regulatory policies to address financial stability issues, facilitating co-ordination among supervisors and regulators on issues that have crosssectoral implications, and promoting consistent adherence to international regulatory standards. As Chair of the SRC, the HKMA led international discussions on new financial stability risks, including market fragmentation, crypto-assets, cyber resilience, financial benchmark transition and audit quality. In addition, the HKMA as a member of the FSB Working Group on Cyber Incident Response and Recovery is contributing to the development of a toolkit of effective practices to help financial institutions respond to and recover from a cyber incident.

The HKMA also assumed the co-chairmanship of NMEG of the FSB starting from June. The HKMA has since been working closely with the US Securities and Exchange Commission to steer the preparation of the FSB annual global monitoring report on non-bank financial intermediation to assess trends and risks in the non-bank financial sector.

Separately, the HKMA assumed the chairmanship of the SIG of the Basel Committee in October 2018. The SIG has two primary objectives: to foster the timely, consistent and effective implementation of the Basel Committee's standards and guidelines; and to advance improvements in banking supervision, particularly across Basel Committee members. The SIG is also responsible for monitoring the implementation of the Basel III framework among its member jurisdictions.

Regional co-operation

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

The HKMA assumed the chairmanship of the EMEAP WGFM in August 2018. The WGFM makes policy recommendations on central bank services and developments in the FX, money and bond markets, and promotes regional bond market development through the Asian Bond Fund initiative. In its role as the WGFM chair, the HKMA steered a study on the implications of financial benchmark reforms with a view to enhancing market readiness for such reforms, and initiated a study of US dollar liquidity and funding dynamics in the EMEAP region. The HKMA also chaired and served as the secretariat of the Focused Meeting on Resolution under the EMEAP Working Group on Banking Supervision. 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.

The HKMA works closely with the ASEAN+3⁹ authorities to strengthen the operations of the ASEAN+3 Macroeconomic Research Office, to monitor and analyse regional economies and support the decision-making and refinement of the Chiang Mai Initiative Multilateralisation (CMIM)¹⁰. During the year, technical amendments were made to the CMIM to optimise its operation.

Training

The HKMA provides training for staff members from Mainland authorities including the PBoC, the State Administration of Foreign Exchange, and the China Banking and Insurance Regulatory Commission, as well as senior representatives of member banks of the China Banking Association, to foster knowledge and experience sharing. Topics covered in these training seminars included central banking, financial inclusion, consumer protection, bank culture reform, fintech development, financial risk analysis and management, treasury functions and human resources management.

ASEAN+3 comprises the 10 ASEAN member countries (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam), together with Mainland China, Japan and South Korea.

Effective March 2010, the CMIM became a regional mechanism that would provide short-term US dollar support to member economies facing liquidity shortages. The total access fund now stands at US\$240 billion.

Hong Kong's credit ratings

The HKMA maintains close dialogue with international credit rating agencies to facilitate a balanced and objective assessment of Hong Kong's credit strength and discuss their concerns over the rating outlook. During the year, S&P affirmed Hong Kong's rating at AA+ with a "stable" outlook. Moody's also maintained Hong Kong's rating at Aa2, but changed the rating outlook to "negative" from "stable". Fitch lowered the long-term credit rating of Hong Kong by one notch to AA with a "negative" outlook.

Hong Kong's financial infrastructure

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

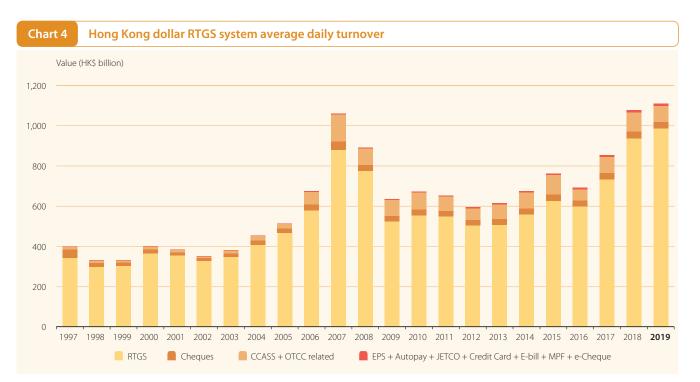
Chart 3 Hong Kong's multi-currency financial infrastructure Mainland Cheque • e-Cheque and e-bill **Regional Payment Macao** CLS Systems³ **Hong Kong** PvP **Trade Repository** for OTC Derivatives **RTGS Systems** CMU Mainland CSDs⁴ USD HKD **Fund Order Routing and** Settlement System Pvk International CSDs⁵ DvP Mainland **Debt Securities** Settlement System FUR RMB • Cheque **Regional CSDs⁶** e-Cheque and e-bill **I HKD & RMB** нксс HKSCC OTCC DvP FPS SEOCH HKD, USD & RMB CNAPS, CIPS and SZFSS CDFCPS, RTGS links with Shenzhen and Guangdong PvP links with Malaysia, Thailand and Indonesia Cross-border links with CCDC and SHCH (Bond Connect) and CSDC (Mutual Recognition of Funds) ς. 5: Cross-border links with Clearstream and Eurocle 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 China) DvP - Delivery-versus-Payment CSDC - China Securities Depository and Clearing Corporation Limited PvP - Payment-versus-Payment CDFCPS - China's Domestic Foreign Currency Payment System (RTGS system for foreign currency payment in China) CIPS - Cross-Border Inter-Bank Payments System in China 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 China) FPS - Faster Payment System HKCC - HKFE Clearing Corp Ltd (central counterparty providing clearing and settlement for futures) HKSCC - HK Securities Clearing Co Ltd (operator of the clearing and settlement system for shares) KSD – Korean Securities Depository (Korea's central securities depository) OTCC - OTC Clearing Hong Kong Limited (central counterparty providing clearing and settlement for OTC derivatives) 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 China) SZFSS – Shenzhen Financial Settlement System TDCC - Taiwan Depository and Clearing Corporation (Taiwan's securities settlement system)

Clearing and Settlement Systems

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 2019, with a daily average transaction value of HK\$987.0 billion (30,643 items), compared with HK\$937.6 billion (36,357 items) in 2018.

In addition to settling large-value payments, CHATS handles daily bulk clearings and settlement of stock market transactions, Mandatory Provident Fund schemes' switching transactions, credit card transactions, cheques, small-value bulk electronic payment items (EPS, auto-credit and autodebit transactions) and automatic teller machine transfers. As a result of a collaboration between the HKMA and OTC Clearing Hong Kong Limited (OTCC), a central counterparty established by Hong Kong Exchanges and Clearing Limited (HKEX) for the purpose of providing clearing and settlement services for over-the-counter (OTC) derivatives transactions, a new bulk settlement run was launched on 15 July 2019 on Hong Kong dollar CHATS as well as US dollar and renminbi CHATS for more efficient money settlement of the notional exchanges of selected OTCC forex derivatives of USD/HKD and USD/RMB pairs (Chart 4).



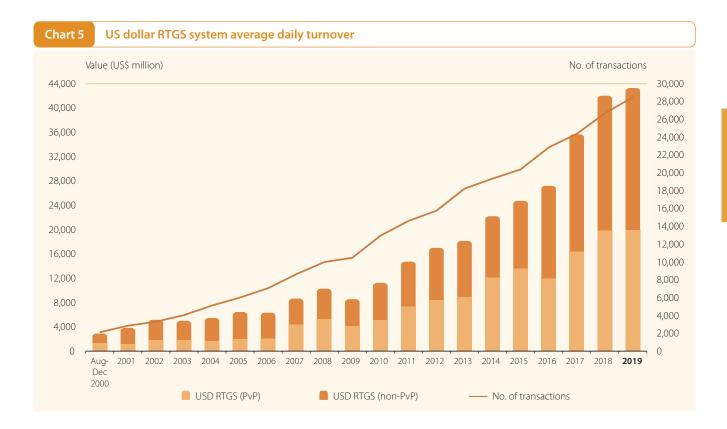
The FPS serves as an extension of Hong Kong dollar CHATS to enable the public to make instant retail fund transfers and payments across different banks and SVFs on a round-theclock basis. It has operated smoothly since its inception in September 2018, with a daily average real-time payment transaction value of HK\$1.8 billion (106,596 items) in 2019.

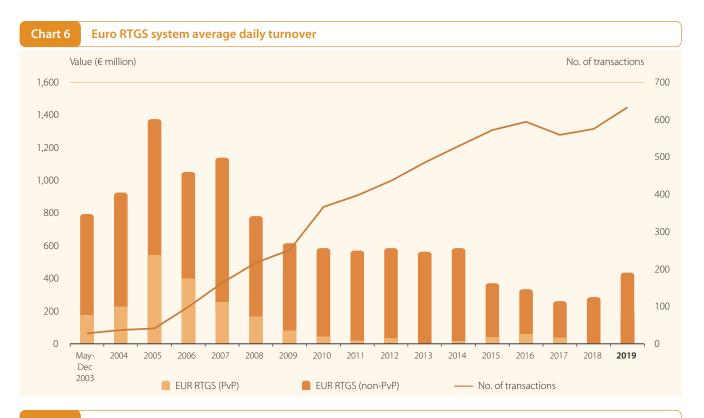
Foreign currency RTGS systems in Hong Kong

The US dollar, euro and renminbi RTGS systems all operated smoothly during the period. The cut-off time of the renminbi RTGS system has been 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 allows financial institutions around the world a much longer operating window to settle offshore and cross-border renminbi payments through Hong Kong's infrastructure. The average daily value of Mainland-Hong Kong cross-border renminbi payments amounted to around RMB172 billion in 2019, accounting for 15% of the total turnover.

The average daily turnover and other details of the foreign currency RTGS systems are set out in Charts 5–7 and Table 2.





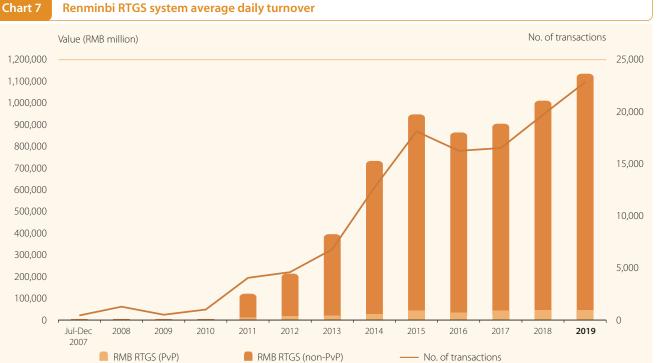


Table 2 Foreign currency RTGS systems

RTGS system	Launch date	Settlement institution or clearing bank	Number of participants at the end of 2019	Average daily turnover in 2019	Average daily transactions in 2019
US dollar RTGS system	August 2000	The Hongkong and Shanghai	Direct: 107	US\$43.3 billion	28,475
		Banking Corporation Limited	Indirect: 109		
Euro RTGS system	April 2003	Standard Chartered Bank	Direct: 36	€435 million	633
		(Hong Kong) Limited	Indirect: 17		
Renminbi RTGS system	June 2007	Bank of China (Hong Kong) Limited	Direct: 205	RMB1,133.9 billion	22,821

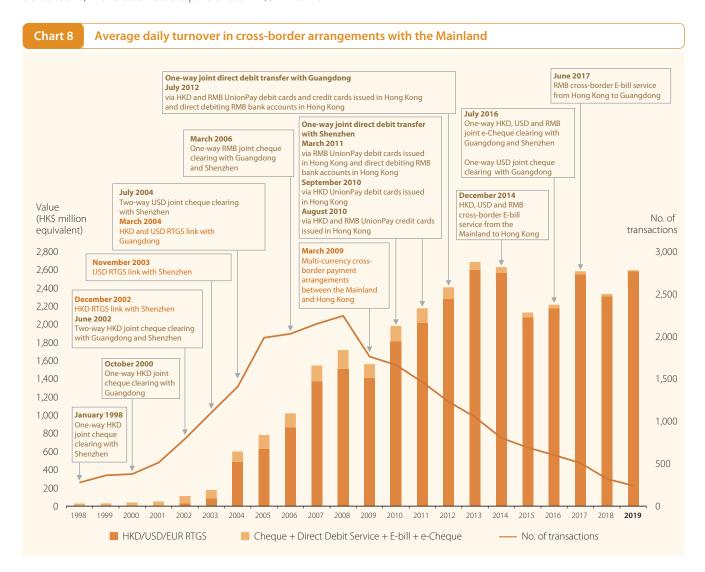
Like the Hong Kong dollar FPS, renminbi FPS as an extension of renminbi CHATS has operated smoothly since inception in September 2018, with a daily average real-time payment transaction value of RMB39.6 million (828 items) in 2019.

Payment-versus-payment

PvP is a settlement mechanism for FX 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, US dollar, euro and renminbi 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 2019, the transaction values of Hong Kong dollar, US dollar, euro and renminbi-related PvP transactions amounted to approximately HK\$14,967 billion, US\$4,674 billion, €0.2 billion and RMB10,626 billion respectively.

Payment links with Mainland China

The HKMA works closely with Mainland authorities to provide efficient cross-border payment links (Chart 8) to meet growing demand. In 2019, the average daily turnover of the various system links, including RTGS cross-border links with Mainland's Domestic Foreign Currency Payment Systems, recorded a total value equivalent to HK\$2.6 billion. The Hong Kong dollar and US dollar RTGS system links with Shenzhen and Guangdong handled more than 10,000 transactions, with a total value equivalent to HK\$521.2 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 2019, such facilities processed about 34,000 Hong Kong dollar, US dollar and renminbi cheques, with a total value equivalent to around HK\$4 billion.

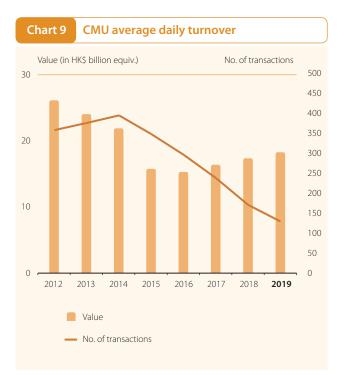


Payment links with Macao

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 2019, Hong Kong dollar cheques and US dollar cheques amounting to about HK\$19 billion and about US\$44 million respectively were cleared.

Debt securities settlement system

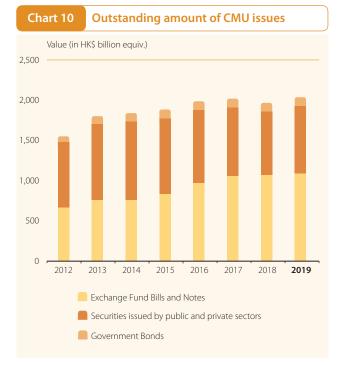
The CMU provides an efficient, one-stop clearing, settlement and depository service for Hong Kong dollar and foreign currency-denominated debt securities issued in Hong Kong. Through the CMU's linkages with international and regional CSDs, investors outside Hong Kong can hold and settle securities lodged with the CMU, while Hong Kong investors can hold and settle foreign securities held with CSDs outside Hong Kong. In 2019, the CMU processed an average daily value of HK\$18.2 billion in 129 secondary market transactions (Chart 9). Among the debt securities lodged with the CMU



at the end of the year, the outstanding amount of Exchange Fund Bills and Notes was HK\$1,082.1 billion, the outstanding amount of debt securities issued by public and private sectors was equivalent to HK\$839.0 billion and the outstanding amount of Government Bonds was HK\$100.1 billion (Chart 10).

Trade Repository for OTC derivatives

The HKTR completed the enhancement of the reporting system to support the second phase of mandatory reporting, covering the reporting of all five asset classes of OTC derivatives transactions and the reporting of the valuation information of transactions. By the end of 2019, the HKTR system recorded 2,463,724 outstanding transactions, compared with 2,550,510 in 2018. Separately, 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 local trade repository continued to meet international standards and best practices.



Hong Kong's retail payment industry



Stored value facilities (including e-wallets, prepaid cards) 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 conduct relevant supervisory and enforcement functions.

The SVF licensees provide the public with services ranging from mobile and internet payments to prepaid card payments. The HKMA granted two new SVF licences in May, bringing the total number of SVF licensees to 18 (Table 3). During the year, the SVF licensees actively rolled out new services and expanded business networks to enhance user experience. They also made use of the FPS, such as by introducing the FPS as an option for users to pay selected Government bills.

To supervise the SVF licensees, the HKMA adopts a principleand-risk-based supervisory approach. It focuses on areas of significant risk to the SVF industry and individual SVF operators, so that it is able to identify and respond swiftly to any serious threat to the safety and efficiency of the industry and licensees. It conducts ongoing supervisory surveillance and on-site examinations of SVF licensees. The HKMA keeps its supervisory approach under review and introduces enhancement measures as necessary.

In 2019, the SVF industry recorded continued growth. The number of SVF accounts stood at 63.1 million as at the end of the year. In the fourth quarter, 1.5 billion transactions totalling HK\$53.0 billion were recorded (Chart 11). During the year, the HKMA continued to promote public awareness of the SVF regulatory regime and issues associated with the use of SVFs through a series of public education programmes.

Chart 11 Growth trend of the SVF industry in 2019

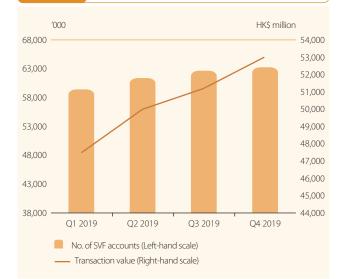


Table 3 Register of SVF Licensees (in alphabetical order) (as at 31 December 2019) (as dt 31 December 2019)

SVF Licensees

33 Financial Services Limited Alipay Financial Services (HK) Limited Autotoll Limited ePaylinks Technology Co., Limited Geoswift Cards Services Limited **HKT** Payment Limited K & R International Limited Octopus Cards Limited **Optal Asia Limited** PayPal Hong Kong 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 SVFs)¹ Bank of Communications (Hong Kong) Limited Dah Sing Bank, Limited Hongkong and Shanghai Banking Corporation Limited (The)

^{1.} Pursuant to Section 8G of the PSSVFO, a licensed bank is regarded as being granted a licence.



Retail payment systems

The Monetary Authority has designated a total of six RPSs to process payment transactions involving participants in Hong Kong under the PSSVFO, on the grounds that proper functioning of these

systems is of significant public interest (Table 4). 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.

Table 4System operators of the designated RPSs
(in alphabetical order) (as at 31 December 2019)

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

Electronic Cheque (e-Cheque)

The use of the e-Cheque was steady in the past year. E-Cheques issued by corporates had increased steadily over the previous year. Corporate e-Cheques made up 71% of total e-Cheques issued at the end of 2019, compared with 56% at end-2018. On the other hand, the personal use of e-Cheques declined alongside the launch of the FPS. To further promote wider adoption of the e-Cheque, the HKMA has been working closely with potential third-party service providers to make use of the e-Cheque Open API service to develop innovative applications to help users such as SMEs streamline their operations in managing the e-Cheques received.

Hong Kong's treasury markets

The HKMA participates actively in international discussions and works closely with the Treasury Markets Association (TMA) to prepare industry stakeholders for possible implications on their operations that may arise from the reforms of interest rate benchmarks. A series of major initiatives were undertaken during the year, including identification of the Hong Kong Dollar Overnight Index Average (HONIA) as the alternative reference rate to the Hong Kong Interbank Offered Rate (HIBOR) while retaining the latter as a major interest rate benchmark in Hong Kong, completion of an industry consultation on technical refinements to HONIA, and engagement with market participants to prepare for the possible discontinuation of the London Interbank Offered Rate (LIBOR).

The HKMA organised its annual landmark event, the Treasury Markets Summit, jointly with the TMA in September. The discussions focused on the global economic outlook, transition challenges arising from the possible discontinuation of LIBOR and the impact of new technologies on treasury operations and market dynamics.

To enhance the professionalism of Hong Kong treasury market participants, the HKMA promotes adherence to the Foreign Exchange Global Code among banks and other market participants.

Over-the-counter derivatives market

The HKMA works closely with the SFC to develop detailed rules for implementing the regulatory regime for the OTC derivatives market in Hong Kong, which aims to reduce systemic risk and enhance transparency in the OTC derivatives market. Different aspects of the regulatory regime are introduced in phases. The first phase of mandatory clearing and the second phase of mandatory reporting took effect in September 2016 and July 2017, respectively. Following public consultation on further enhancements to the OTC derivatives regime in June 2019, an updated list of financial service providers under the mandatory clearing regime came into effect in January 2020.

In addition, the HKMA participated in several international forums, including the OTC Derivatives Working Group established under the FSB, and the OTC Derivatives Regulators' Forum, contributing to the relevant international initiatives and monitoring international regulatory developments closely.

PLANS FOR 2020 AND BEYOND



The HKMA will continue to work closely with other central banks, government agencies and the private sector, both locally and internationally, to implement initiatives that enhance Hong Kong's position as an international financial centre.

Hong Kong as a fintech hub in Asia

To promote the development and use of fintech in the banking and payment industries, the HKMA will continue to implement the Smart Banking initiatives. At the same time, the HKMA will continue to encourage the adoption of Open API, facilitate eTradeConnect's connection with other regions and trade-related organisations, and further expand the fintech talent pool. To explore the application of new technologies in financial services and facilitate financial innovation, the HKMA will continue to research into new technologies such as AI and CBDC, and maintain close collaboration with its strategic partners and key stakeholders both locally and overseas.

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

International investors' allocation of their resources to renminbi assets is expected to continue to gather pace, with a large part of the inflows continuing to take place through the Connect schemes. In order to capitalise on this trend, the HKMA will continue to work closely with Mainland authorities to enhance and expand the existing channels. The HKMA will also develop measures to further facilitate cross-border access of financial and banking services in the GBA. In particular, the HKMA will work closely with Mainland authorities to formulate the implementation details of the two-way wealth management connect scheme with a view to launching the scheme as soon as possible. The HKMA will also strive to expand existing pilot initiatives in the GBA and explore measures to help GBA corporates and financial institutions operate across the border taking advantage of Hong Kong's financial platform.

Hong Kong as a hub for corporate treasury centres, asset management and green finance

The HKMA will explore ways to further enhance the competitiveness of Hong Kong's financial sector, particularly in the development of Hong Kong as an international asset management hub and regional destination for CTCs, green finance, and fund investment activities. To promote the further development of the private equity industry in Hong Kong, the HKMA will continue to collaborate with the Government and industry to take forward the legislative proposal of the limited partnership regime as well as the 2020–2021 Budget initiative to provide tax concession for carried interest issued by private equity funds operating in Hong Kong.

International and regional co-operation

Trade tensions are likely to persist against a backdrop of continuing weakness in global growth. While easing financial conditions render support to the global growth outlook, interest rate declines are creating further incentives for a global search for yield and contributing to stretched valuations and a build-up of debt vulnerabilities. Reflecting these developments, underlying medium-term risks to global financial stability have not dissipated, and risks of adverse changes in external financial conditions and the reemergence of volatile capital flows remain. Against this backdrop, there is a need to strengthen cross-border cooperation in market surveillance and enhance the resilience of financial systems. To this end, the HKMA will continue to participate actively in international and regional forums to promote financial stability.

Hong Kong's financial infrastructure

The HKMA will continue to maintain smooth and reliable operation of the various financial infrastructures to strengthen overall resilience and meet international standards. Riding on the successful launch and operation of the FPS in the first year, the HKMA will continue to explore more potential uses in collaboration with the industry, with a view to further advancing e-payment in Hong Kong. In particular, more work will be done to promote the use of the FPS in merchant payments and business payments. Subject to market needs, the HKMA will consider further enhancements of FPS functionalities to facilitate the use of the FPS in making payments. In addition, it will continue working with various Government departments and public bodies to assist them in adopting the FPS in making and/or receiving payments.

Hong Kong's retail payment industry

While maintaining ongoing supervision of SVF licensees and designated RPSs in accordance with the PSSVFO, the HKMA will work with the industry to promote the use of e-payment in a prudent and regulated manner with a view to better addressing the day-to-day payment needs of the public.

Hong Kong's treasury markets

The HKMA will continue to support the enhancement of professionalism and competitiveness of Hong Kong's treasury markets, particularly in relation to financial benchmarks and the promotion of the Foreign Exchange Global Code.

Over-the-counter derivatives market

The HKMA will work closely with the SFC to further develop detailed rules to implement the regulatory regime for the OTC derivatives market.