

# International Financial Centre

One of the key responsibilities of the HKMA is to maintain Hong Kong's status as an international financial centre. During the year, good progress was made on the seven initiatives that are aimed at facilitating the development and use of fintech in the banking and payment industries. The successful launch of the Faster Payment System was a case in point.

Hong Kong's unique role as the dominant gateway to Mainland China was further strengthened with the implementation of major enhancements to the mutual access schemes for the capital markets between Mainland China and Hong Kong, and the development of the Greater Bay Area. Hong Kong's status as the global offshore renminbi business hub was also firmly secured, as demonstrated by the vibrant renminbi financial activities taking place in Hong Kong.

At the same time, great effort had been put on opening up new opportunities to further enhance the competitiveness of Hong Kong's financial platform, including infrastructure financing, corporate treasury centres and green bond market. The HKMA's marketing campaign to promote Hong Kong's strengths to overseas and Mainland stakeholders had also been stepped up. At an international level, the HKMA is playing 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 put great effort on implementing the seven initiatives that were announced in September 2017 and aimed at facilitating the development and use of fintech in the banking and payment industries. The key progress of these seven Smart Banking initiatives during the year included:

- successfully launching the Faster Payment System (FPS) to achieve full connectivity among banks and stored value facilities (SVFs), commonly known as e-wallets;
- publishing an Open Application Programming Interface (Open API) framework and facilitating the implementation of Open API in the banking sector;
- enhancing fintech research and talent development;
- stepping up cross-border collaboration in fintech;
- updating the *Guideline on Authorization of Virtual Banks* and processing virtual bank licence applications;
- operating the upgraded Fintech Supervisory Sandbox 2.0 (FSS 2.0) smoothly; and
- expanding the Banking Made Easy initiative to facilitate the adoption of regulatory technology (Regtech).

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

Hong Kong's unique role as the dominant gateway to Mainland China was further strengthened with the implementation of major enhancements to the mutual access schemes for the capital markets between Mainland China and Hong Kong. In particular, the introduction of real-time Delivery versus Payment (DvP) settlement and the State Council's announcement of tax waiver for overseas bond investors further enhanced the efficiency and appeal of the scheme. The HKMA also worked closely with Mainland authorities to develop and implement a series of financial facilitation measures for residents and corporates living, working and doing business in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). Offshore renminbi business in Hong Kong remained vibrant, with the size of the renminbi deposit pool up by 6% to RMB657.7 billion and the average daily turnover of the renminbi Real Time Gross Settlement (RTGS) system recording a high level of RMB1,010.1 billion.

Great effort had been put on opening up new opportunities to further enhance the competitiveness of Hong Kong's financial platform. To promote the development of bond market in Hong Kong, the HKMA launched the Pilot Bond Grant Scheme (PBGS), which is a Budget initiative offering a subsidy to attract first-time bond issuers to Hong Kong, and worked closely with the Government on legislative changes to expand the scope of tax exemptions on bond investment income under the Qualifying Debt Instrument scheme. The HKMA's marketing campaign to promote Hong Kong's strengths to overseas and Mainland stakeholders had also been stepped up. A number of large-scale events and targeted outreach activities were organised to promote Hong Kong as a hub for green finance, infrastructure financing and corporate treasury centres (CTCs).

At an international level, the HKMA is playing a leadership role in a number of regional and international committees. Currently, the HKMA is chairing the Standing Committee on Supervisory and Regulatory Cooperation (SRC) of the Financial Stability Board<sup>1</sup> (FSB), the Supervision and Implementation Group (SIG) of the Basel Committee on Banking Supervision ("Basel Committee")<sup>2</sup>, and the Working Group on Financial Markets (WGFM) established under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)<sup>3</sup>.

<sup>1</sup> The FSB was established in April 2009 as the successor to the Financial Stability Forum to address vulnerabilities in the 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.

<sup>2</sup> The Basel Committee is the primary global standard setter for the prudential regulation of banks and provides a forum for regular cooperation on banking supervisory matters. Its 45 members comprise central banks and bank supervisors from 28 jurisdictions.

<sup>3</sup> 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.

## International Financial Centre

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 RTGS systems, the Central Moneymarkets Unit (CMU) and the Hong Kong Trade Repository (HKTR) achieved 100% system availability in 2018, as compared to the target of 99.95%. Through its accounts set up with the two Mainland central securities depositories (CSDs), the CMU continued to facilitate the settlement of transactions under Bond Connect Northbound Trading and the holding of Mainland debt securities on behalf of relevant CMU members.

To promote the general safety and efficiency of the retail payment industry, the HKMA designated two more retail payment systems (RPSs) under the Payment Systems and Stored Value Facilities Ordinance (PSSVFO) in August to bring their operations under the HKMA's oversight. As a result, there are a total of six designated RPSs under the oversight of the HKMA. The HKMA has also been supervising 16 SVF licensees which actively launch new products and services that sought to offer customers more choices and better user experience. Meanwhile, the coverage of the e-Cheque and Electronic Bill Presentment and Payment service was further expanded to include cross-border payments between Hong Kong and the entire Guangdong Province.

## International Financial Centre

### REVIEW OF 2018

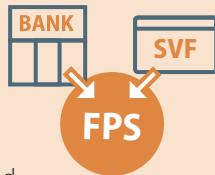
#### Hong Kong as a Fintech Hub in Asia

##### Smart Banking initiatives

The seven Smart Banking initiatives were announced by the HKMA in September 2017 with the aim to help the banking sector rise to a higher level 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 financial ecosystem of Hong Kong.

###### *Faster Payment System*

The FPS was successfully launched in September, enabling real-time fund transfers in the Hong Kong dollar and renminbi anytime and anywhere among users of banks and SVFs with the use of mobile phone numbers or email addresses as account proxy for receiving funds. A total of 21 banks, including most retail banks, and 10 SVF operators in Hong Kong have participated in the system to provide real-time



payment services and/or addressing service for their customers.

Within 3.5 months, FPS had received **over 2 million** registrations, representing a ratio of **27%** to total population size in Hong Kong. Since its launch, the FPS had processed **over 4.8 million** transactions involving an aggregate amount of **over HK\$104.9 billion** and **RMB2.75 billion**.

In the same month, the HKMA launched the Common QR Code Standard for Retail Payments in Hong Kong and a mobile application ("app") tool "Hong Kong Common QR Code" (HKQR). The app is the world's first mobile app for converting multiple QR codes into a single code. It facilitates merchants, especially small and medium-sized enterprises (SMEs), in using a single QR code to accept different payment schemes, instead of displaying multiple QR codes to their customers.

## International Financial Centre

### ■ *Open Application Programming Interface*

Open API allows banks' data to be accessed by third-party service providers to facilitate better and easier integration of services offered by banks and other businesses. Users can therefore stay conveniently on one system to enjoy integrated services in a secure environment. To facilitate the development and adoption of Open API by the banking sector, the HKMA published an Open API Framework in July. The Framework adopts a risk-based principle and a four-phase approach to implement various Open API functions. Under Phase 1, 20 banks had opened up some 500 Open API endpoints in January 2019, covering information of over 1,000 products and services.

### ■ *Research and talent development*

Leveraging the trade finance proof-of-concept work led by the HKMA, a consortium of banks in Hong Kong launched eTradeConnect, a distributed ledger technology-based trade finance platform, in October. The platform aims to reduce error and risk of fraud by digitising paper-based documents and automating trade finance process. As of end-2018, 12 banks had joined as members of the consortium. In October, a Memorandum of Understanding (MoU) was signed between eTradeConnect and we.trade, a European digital trade finance platform, to conduct a proof-of-concept on connecting the two platforms. In parallel, the HKMA has been exploring opportunities to expand the connectivity of eTradeConnect with other regions, including working with the Monetary Authority of Singapore to implement the Global Trade Connectivity Network.



HKMA Chief Executive, Mr Norman Chan (left), at the launching ceremony of eTradeConnect.

In an effort to enlarge the talent pool in the fintech industry, the HKMA launched the Fintech Career Acceleration Scheme (FCAS) 2.0, an upgraded version of FCAS, in collaboration with the Hong Kong Applied Science and Technology Research Institute in January. FCAS 2.0 comprises four programmes targeting young talent at various stages of their career development. Over 200 students benefited from the programmes under FCAS 2.0.



HKMA Chief Executive, Mr Norman Chan (second from left), launches FCAS 2.0 with Chairman of Cyberport, Dr Lee George Lam (first from left), Chairman of Hong Kong Applied Science and Technology Research Institute, Mr Ming-yam Wong (second from right), and Chief Executive Officer of Hong Kong Science Park, Mr Albert Wong (first from right).

## International Financial Centre

### ■ Cross-border collaboration



The HKMA continued to strengthen fintech collaboration with Shenzhen after signing an MoU with the Office of Financial Development Service (OFDS) of the People's Government of Shenzhen Municipality in 2017. In particular, the HKMA sponsored the Shenzhen Summer Internship Programme, which enabled 50 students to work in renowned firms in Shenzhen for six weeks to experience the fintech ecosystem there, and co-organised with OFDS the Shenzhen-Hong Kong Fintech Award for the second time.



*HKMA Deputy Chief Executive, Mr Howard Lee (second from right), interacts with the first batch of Shenzhen fintech summer interns.*

The HKMA also signed fintech co-operation agreements with four other jurisdictions in 2018, namely the Swiss Financial Market Supervisory Authority (FINMA), the Polish Financial Supervision Authority, the Financial Services Regulatory Authority of Abu Dhabi Global Market, and the Central Bank of Brazil, to facilitate fintech collaboration.

In collaboration with 11 financial regulators and related organisations, the HKMA announced in August the initiative of the Global Financial Innovation Network, which seeks to provide an efficient way for innovative firms to interact with regulators, and for co-operation among financial services regulators on innovation-related topics.

### ■ Virtual banking

The introduction of virtual banking will provide additional impetus to the application of fintech in Hong Kong and offer new customer experience in digital banking. Virtual banks will also help promote financial inclusion as they would target the retail segment, whether the clients are individuals or SMEs. The HKMA updated the *Guideline on Authorization* for this purpose after public consultation in May, and received around 30 applications by end-August.



### ■ Fintech Supervisory Sandbox



Usage of the FSS continued to increase steadily during the year. To help develop the Regtech ecosystem, the FSS was open to Regtech projects starting from September.

Up to end-2018, pilot trials of **42** fintech or technology products in the FSS had been allowed. Among these cases, **28** pilot trials were completed, and the products were rolled out to the market subsequently. The HKMA also received **220** requests to access the FSS Chatroom to seek regulatory feedback at the early stage of fintech projects. About **70%** of these requests were made by technology firms.

## International Financial Centre

### ■ *Banking Made Easy initiative*

The Banking Made Easy initiative was launched to reduce regulatory friction to enable banks to provide better customer experience in the online banking environment. Under this initiative, the HKMA streamlined regulatory requirements in relation to remote onboarding, online finance, and online wealth management. The scope of the Banking Made Easy initiative was expanded in September to facilitate the adoption of Regtech by banks.



#### Focus areas of the Banking Made Easy initiative:

- Remote onboarding and account maintenance
- Online finance
- Online wealth management
- AML/CFT surveillance technologies
- Regtech for prudential risk management and compliance
- Study on machine-readable regulations

### 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 15 events, including six panel discussions during the Hong Kong Fintech Week 2018, attracting over 9,600 participants. The FFO also spoke at 52 fintech-related events and held 169 meetings with other regulatory authorities, industry organisations, financial institutions, technology firms and startups, and handled 221 enquiries.



HKMA Chief Executive, Mr Norman Chan (first from left), moderates a panel discussion with (from left to right) Mr Stephen Bird, CEO, Global Consumer Banking, Citi, Mr Benjamin Hung, CEO, Greater China & North Asia, Standard Chartered Bank, Mr Eric Jing, CEO, Ant Financial, and Ms Jessica Tan, Co-CEO, Executive VP, CIO & COO, Ping An Group during the Hong Kong Fintech Week 2018.

## International Financial Centre

### HIDDEN FIGURES OF THE FASTER PAYMENT SYSTEM (FPS)

The HKMA has always been committed to building a world-class financial infrastructure for Hong Kong. While financial infrastructure is the backbone supporting various interbank payments and financial transactions, the public may not be aware of its existence even though they use many of the services supported by it. The work of the Financial Infrastructure Development Division (FID Division) of the HKMA might appear somewhat mysterious to the public. However, since the launch of the FPS in September 2018, the HKMA's work in financial infrastructure has been brought into the spotlight.

As the work of the FID Division gains more publicity, the secrets of the workplace are revealed. "Even though I had explained to my son about my work at the HKMA numerous times in the past 20 years, he just had some vague ideas of what I do," Mr Lee Kwok-hung, Chief Project Manager of the FID Division said. "However, with the launch of the FPS, he finally has a clearer picture of my job." Mr George Chou, Senior Manager of the FID Division, echoed Mr Lee's remarks, saying "It is the same with my family." The HKMA launched the Hong Kong dollar Real Time Gross Settlement (RTGS) system as long ago as 1996, offering banks an efficient, safe, and convenient platform to conduct interbank payments and settlement. The US dollar, euro and renminbi RTGS systems were introduced subsequently, making Hong Kong's RTGS systems the most advanced in Asia, and laying the cornerstone for Hong Kong's role as a global hub for offshore renminbi business. The RTGS systems are highly relevant to daily public life in handling day-to-day payments and transactions, such as cheque payments, equities trading, and ATM transfers. The financial infrastructure could be said to resemble the blood vessels of the human body, carrying nutrients to different organs and ensuring its overall health. While its presence generally goes unnoticed, if it malfunctions, the stability of the whole financial system can be threatened.

The FPS is a landmark piece of financial infrastructure, providing full connectivity among banks and stored value facilities (SVFs) (i.e. e-wallets). In order to raise public awareness of the new system, the HKMA named it "轉數快" in Chinese. It is catchy and apt, highlighting the unique features of the system in offering real-time transfers and payments. It is also a phrase that is commonly used locally in praising someone who is quick-witted.

On the eve of the FPS's planned launch ceremony on 17 September last year, Hurricane Signal No. 10 was issued as Super Typhoon Mangkhut approached Hong Kong. Ms Kitty Lai, Head of the FID Division, recalled that the biggest consideration then was whether the FPS launch should go ahead as planned, because that would mean many staff members of the HKMA, Hong Kong Interbank Clearing Limited (HKICL), banks and SVF operators would have to brave the strong winds and rain to report for duty. But the situation could get even more complicated if the launch was postponed. "Postponing the launch could in fact involve more people having to battle their way through the storms to get to work," Mr Lee said. He explained that the launch was not as simple as just pushing a button. For the launch to take place, all relevant parties had toiled hard to orchestrate the necessary procedures. Should the launch be postponed, all these planned procedures would have to be dismantled and put together anew at a later date.

Following much deliberation and weighing up of the different options, it was decided that the FPS should be launched as planned, while individual banks and SVF operators could choose whether their access to the FPS should go live on the same day. Eventually, all participating banks and SVF operators decided to stick to the original plan, thanks to the invaluable support and dedication of the many unsung heroes working hard behind the scenes. Accordingly, the scheduled launch ceremony in the morning was turned into a technical briefing so that the public could start

## International Financial Centre

registration on the same day. The FPS commenced full operation on 30 September as planned, marking a new chapter in the development of payment systems in Hong Kong.

The FPS today is the world's only real-time retail payment system that offers full connectivity among banks and e-wallets, operates all year round, and supports the dual currencies of the Hong Kong dollar and the renminbi. A total of 21 banks and 10 SVF operators have participated in the FPS to date. In order to get first-hand user experience, colleagues at the FID Division downloaded almost all of the participating institutions' mobile apps and even opened new bank accounts or reactivated some long-dormant ones. The FID Division also tested out the Common QR Code which was launched together with the FPS. The Common QR Code allows merchants to use a single QR code to accept payment schemes of different e-wallets and banks. But as the tests would involve real cash, the choice of payee merchants for the trials presented a challenge. Ms Lai came up with the idea of making donations. Two local charities were selected for testing the actual operations of accepting donation payments with the use of the Common QR Code. So how much was donated in total? "We made numerous donation payments, but we did not actually record the total amount," Ms Lai said.

In just six months since its launch, the FPS had received over 2.58 million registrations as at end-March 2019, with an average transaction value of about HK\$1.2 billion per day. For a population of some seven million, the penetration rate is relatively high. While the FPS is mostly used for person-to-person payments for now, it is expected that more merchants will soon adopt this fast and convenient means to accept payments and enhance the efficiency of their business operations. The HKMA will also seek to expand the applications of the FPS, including exploring the possibility of

establishing cross-border system linkages, as it continues its journey to enhance and create new additions to Hong Kong's world-class financial infrastructure.



Head of FID Division, Ms Kitty Lai (front row, fourth from right), Chief Project Manager of FID Division, Mr Lee Kwok-hung (back row, centre) and Senior Manager of FID Division, Mr George Chou (back row, fifth from right) are pictured after the FPS launch with colleagues from other divisions involved in the preparation for the FPS. Many colleagues who participated in the process are not in the photo.



HKMA Chief Executive, Mr Norman Chan (second from right), HKMA Deputy Chief Executive, Mr Howard Lee (first from right) and Head of FID Division, Ms Kitty Lai (first from left) visit HKICL's demonstration booth during the launch ceremony of the FPS. Standing second from left is Chief Executive Officer of HKICL, Ms Hester Tang.

## International Financial Centre

### Hong Kong as a Financing Hub for Infrastructure Investments



The HKMA Infrastructure Financing Facilitation Office (IFFO) continued to work with different key stakeholders in facilitating infrastructure investment and financing. The number of IFFO partners grew to **95**, from 41 at inception in July 2016. They included market leaders in the infrastructure field from Hong Kong, Mainland China, and overseas, such as multilateral financial agencies and development banks, institutional investors, banks, insurance companies, project developers and operators, professional service firms, and public-sector entities.

**Table 1 List of IFFO Partners as at 31 December 2018 (in alphabetical order)**

Actis	China Investment Corporation	King & Wood Mallesons
Agricultural Bank of China Limited Hong Kong Branch	China National Petroleum Corporation	KPMG
AIA Group Limited	China State Construction Engineering Corporation Limited	Legg Mason Global Asset Management
AIG Insurance Hong Kong Limited	China Three Gorges Corporation	Macquarie Group
Airport Authority Hong Kong	China-Africa Development Fund	Malayan Banking Berhad
Allen & Overy	China-Britain Business Council	Marsh (Hong Kong) Limited
Aon Hong Kong Limited	CITIC Capital	Mayer Brown
APG Asset Management	Citigroup	Mitsubishi Corporation (Hong Kong) Ltd.
Asian Academy of International Law	City of London Corporation	Mitsui & Co. (Hong Kong) Ltd.
Asian Development Bank	Clifford Chance	Mizuho Bank, Ltd.
Astana International Financial Centre	CLP Group	Morgan Stanley
Australia and New Zealand Banking Group Limited	CNIC Corporation Limited	MTR Corporation Limited
AustralianSuper	Crédit Agricole Corporate and Investment Bank	MUFG Bank, Ltd.
Bank of China (Hong Kong) Limited	CRRC Corporation Limited	Multilateral Investment Guarantee Agency, a member of the World Bank Group
Bank of China Limited	Currie & Brown	National Pension Service
Bank of Communications Co., Ltd.	Deloitte China	OMERS
Beijing Jingneng Clean Energy Corporation Limited	Eastspring Investments	Ontario Teachers' Pension Plan
BlackRock	Ernst & Young	PinSENT Masons
Blackstone Group	European Bank for Reconstruction and Development	PwC
Brookfield Asset Management	Export-Import Bank of China (The)	Silk Road Fund
Canada Pension Plan Investment Board	General Electric	Standard Chartered Bank
CGCOC Group (Hong Kong) Co., Limited	Global Infrastructure Facility	Standard Chartered Bank (Hong Kong) Limited
China Communications Construction Company Limited	Global Infrastructure Hub	State Development & Investment Corp., Ltd.
China Construction Bank (Asia) Corporation Limited	Hong Kong Mortgage Corporation Limited (The)	State Grid Corporation of China
China Construction Bank Corporation	Hong Kong Trade Development Council	Sumitomo Mitsui Banking Corporation
China Datang Corporation Ltd.	Hongkong and Shanghai Banking Corporation Limited (The)	Taikang Asset Management Company Limited
China Development Bank Corporation	HSBC Holdings plc	Teachers Insurance and Annuity Association of America
China Energy Conservation and Environmental Protection Group	Industrial and Commercial Bank of China (Asia) Limited	TPG Capital
China Energy Engineering Corporation Limited	Industrial and Commercial Bank of China Limited	Willis Towers Watson
China Export & Credit Insurance Corporation	International Finance Corporation, a member of the World Bank Group	Xinjiang Goldwind Science & Technology Co., Ltd.
China Hua Neng Group Hong Kong Limited	Japan Bank for International Cooperation	Zurich Insurance Company Limited
China Huadian Hongkong Company Limited	Jardine Lloyd Thompson Limited	

## International Financial Centre

IFFO organised a series of capacity building workshops, including the executive workshop on “Private Participation in Infrastructure Project Finance and Risk Mitigation” with International Finance Corporation and Multilateral Investment Guarantee Agency in March, a seminar on “Building a Sustainable Belt and Road — Hong Kong’s Pivotal Role to Play” with the Hong Kong Association of Banks (HKAB) in May, as well as a case study workshop on infrastructure finance led by Professor Akash Deep of Harvard Kennedy School in November.



*HKMA Deputy Chief Executive and Director of IFFO, Mr Eddie Yue, gives welcome remarks at the workshop led by Professor Akash Deep of the Harvard Kennedy School.*



*The Investors’ and Debt Financing Roundtables are attended by senior representatives from the key stakeholders in infrastructure financing and investment.*

IFFO also made good progress in market and product development and investment facilitation.

<b>March</b>	IFFO joined the Global Infrastructure Facility as an advisory partner, contributing to the World Bank Group’s efforts to help make infrastructure projects more bankable.
<b>August</b>	The HKMA co-hosted, together with the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), a roundtable between senior executives of 10 Central State-owned Enterprises (CSOs) and a number of key international institutional investors, discussing on how Hong Kong could facilitate CSOs’ investment and expansion in Belt & Road Countries.
<b>October</b>	IFFO hosted the Investors’ and Debt Financing Roundtables, attended by leading international institutional investors, debt financiers and project owners to discuss innovative ways of infrastructure financing and potential co-investment opportunities, and produced a <i>Reference Term Sheet for Non-Recourse Infrastructure Loans in Emerging Markets</i> aiming to narrow the gap between the expectations of financiers and project owners, thereby enhancing infrastructure projects’ bankability.



*HKMA Executive Director (External) and Deputy Director, IFFO, Mr Vincent Lee (right), and Chairperson of HKAB and Chief Executive, Hong Kong, HSBC, Ms Diana Cesar, attend and speak at the seminar co-organised by IFFO and HKAB.*



*The HKMA co-organises the “Connecting Belt & Road, Capturing Opportunities Together” high-level roundtable in Hong Kong with SASAC.*

## International Financial Centre

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

Since its introduction, Bond Connect has become an important channel through which international investors gain exposure to the Mainland bond market while taking advantage of the market infrastructure and financial services in Hong Kong. As at end-2018, 503 investors had registered as eligible Bond Connect investors. Daily turnover averaged RMB3.6 billion in 2018, compared with RMB1.5 billion during its initial launch in July 2017.



#### Bond Connect

**503** investors, with average **RMB3.6 billion** daily turnover.

In August, several major enhancements were made, including the full implementation of the real-time DvP settlement model, which substantially reduces settlement risk and enhances efficiency, and is critical in drawing major overseas institutional investors to Bond Connect. Other enhancements included the launch of block trade functionality and the State Council's announcement of tax waiver for overseas investors investing in the Mainland bond market. In November, an additional electronic trading platform was announced to be added to Bond Connect, offering more choices to investors. The convenience and flexibility offered by Bond Connect, coupled with the enhancements this year, prepared the ground for Mainland bonds to be included in major fixed income indices, thereby accelerating the allocation to renminbi assets by international investors.



HKMA Chief Executive, Mr Norman Chan (eighth from right), joins guests in the Bond Connect Anniversary Summit.

The daily quotas of Stock Connects quadrupled in May, paving the way for the inclusion of A-shares in the MSCI Emerging Markets Index in June and September.

To support the development of the GBA, the HKMA worked with Mainland authorities to develop and implement a series of financial facilitation measures for residents and corporates living, working and doing business in the GBA. Priority was given to address the financial services needs of Hong Kong residents in the Mainland part of the GBA, including payment, account opening and wealth management. Encouraging progress was made, particularly in the area of payment. With policy support from the relevant authorities, some e-wallet operators had launched cross-border payment services such that Hong Kong residents could make mobile payment in Mainland China.

## International Financial Centre

Offshore renminbi business in Hong Kong maintained stable growth during the year. As at end-2018, renminbi customer deposits and outstanding certificates of deposit totalled RMB657.7 billion, up 6% compared with the beginning of the year. Renminbi trade settlement handled by Hong Kong banks increased to RMB4.21 trillion in 2018, up 7.5% compared with the year before. As for financing activities, offshore renminbi bond issuance regained momentum, increasing more than twofold to RMB41.9 billion in 2018, while renminbi lending fell by 27% to RMB105.6 billion as at end-2018. Daily average turnover of Hong Kong's renminbi RTGS system amounted to RMB1,010.1 billion, whilst SWIFT statistics showed that Hong Kong's share of global renminbi payments stood at some 70%. In November, the PBoC issued offshore bills of RMB20 billion for the first time in Hong Kong, expanding the spectrum of high-quality renminbi assets and improving the yield curve of renminbi bonds in Hong Kong. Together, these developments demonstrate Hong Kong's leading position as the global hub for offshore renminbi business.

- **RMB657.7 billion** RMB customer deposits and outstanding certificates of deposit
- **RMB4.21 trillion** RMB trade settlement handled by Hong Kong banks
- **RMB41.9 billion** offshore RMB bond issuance
- **RMB1,010.1 billion** daily average turnover of RMB RTGS system

The HKMA continued to expand and deepen its collaboration with other overseas economies in offshore renminbi business and other areas of financial services. In January, the HKMA signed an MoU on Cooperation in the Area of Financial Markets with the Swiss Federal Department of Finance with a view to promoting financial sector development in the two jurisdictions and capturing the opportunities arising from, among others, the further progress of renminbi internationalisation and opening up of the financial markets in Mainland China.

### Closer Economic Partnership Arrangement (CEPA)

The HKMA continued to monitor the implementation of various CEPA measures closely and worked with the Government to explore room for further liberalisation and facilitation measures for Hong Kong's financial industry to enter the Mainland market.

### Hong Kong as a hub for corporate treasury centres

To enhance the attractiveness of Hong Kong as a CTC hub, the Government further amended the Inland Revenue Ordinance in 2018 to extend the coverage of the half-rate concession to specified treasury services between qualifying CTCs and their onshore associated corporations. Meanwhile, the HKMA maintained its promotion efforts to attract Mainland and international corporates to set up CTCs in Hong Kong.

By the end of 2018, close to **60** corporations had reflected to the HKMA that they were actively planning to set up, or had set up, their CTC operations in Hong Kong.

### Hong Kong as an asset management centre

The HKMA continued to support Hong Kong's development as an asset management hub through policies and outreach. According to statistics from the Hong Kong Securities and Futures Commission (SFC), Hong Kong's asset and wealth management business amounted to HK\$24,270 billion as at 31 December 2017. According to the Asian Venture Capital Journal, the total capital under management of private equity funds also increased by 12.3% to US\$159.1 billion in 2018.

## International Financial Centre

The HKMA worked closely with the Government and industry to provide a more favourable tax and regulatory environment for fund domiciliation. In particular, the Inland Revenue (Profits Tax Exemption for Funds) (Amendment) Bill 2018 was introduced into the Legislative Council in December to broaden the eligibility of investment funds to enjoy profits tax exemption. The HKMA also worked closely with the Government to study the establishment of a limited partnership regime for private equity funds, to make it commercially viable for private equity fund domiciliation and attracting more businesses of this kind to Hong Kong.

### Hong Kong's bond market development

In May, the HKMA launched the PBGS, offering a subsidy to attract first-time bond issuers to Hong Kong. The response has been positive. The HKMA also worked closely with the Government on the legislative changes to expand the scope of tax exemptions on bond investment income under the Qualifying Debt Instrument scheme. In addition, large-scale events and targeted outreach activities were organised, including two events in June on green bonds in collaboration with the International Capital Market Association and PBoC respectively, which drew participation from a total of 1,300 industry professionals and policymakers. The HKMA also continued to support the Government in implementing the HK\$100 billion Government Green Bond Programme.



#### *Government Bond Programme*

During the year, the HKMA arranged eight tenders of institutional government bonds amounting to HK\$16.6 billion. By the end of 2018, the total amount of outstanding institutional bonds was HK\$87.1 billion.

Following the announcement of the Government's 2018-19 Budget, the HKMA arranged in December the third issuance of a HK\$3 billion three-year Silver Bond to Hong Kong senior residents aged 65 or above. It attracted more than 45,000 applications with investment monies over HK\$6.2 billion. The amount of retail bonds outstanding at the end of the year was HK\$18.8 billion.

### Marketing campaign

During the year, a pitchbook on *Hong Kong as an International Financial Centre and Gateway to China* was developed to showcase Hong Kong's advantages and business opportunities, and to facilitate the HKMA's promotion and outreach effort. The pitchbook was widely distributed and presented to key stakeholders from the public and private sectors.

### International and regional co-operation

#### *International Monetary Fund's (IMF) Article IV Consultation*

The HKMA rendered full support to the IMF Mission's work in the annual Article IV Consultation exercise, which was concluded in November. Whilst noting that the downside risks to Hong Kong's economy had increased, the IMF commended Hong Kong for its many years of prudent macroeconomic policies, which had endowed Hong Kong with strong buffers to navigate challenges and ensure continued stability. Among other things, the IMF continued to affirm the Linked Exchange Rate System as the appropriate exchange rate arrangement for Hong Kong, acting as an anchor of stability. The IMF also noted that Hong Kong had been considered one of the most competitive economies in the world for many years and was rightly taking steps to maintain competitiveness, including further development of the bond market, the introduction of various green finance initiatives, and development in innovation and technology as attested by the launch of eTradeConnect and the FPS. The Mission considered that the development of the GBA would create opportunities for Hong Kong over the medium term, given Hong Kong's unique position as the gateway to Mainland China and as a global financial centre with renowned professional services.

## International Financial Centre

### *Participation in international financial community*

As a reflection of the HKMA's contribution to global financial stability, the Chief Executive of the HKMA was appointed Chair of the Standing Committee on Supervisory and Regulatory Cooperation of the FSB for a two-year term beginning on 1 April 2017. 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 cross-sectoral implications; and promoting consistent adherence to international regulatory standards. The HKMA chaired two SRC meetings in 2018. Key issues discussed included fintech, cybersecurity, asset management activities, global systemically important financial institutions, and external audit. On cybersecurity in particular, the HKMA helped drive and deliver the Cyber Lexicon at the G20 as a member of the Cyber Lexicon Working Group, and promoted cross-border cybersecurity information sharing by establishing a bilateral framework with the Monetary Authority of Singapore.

Separately, the HKMA assumed the chairmanship of the SIG of the Basel Committee in October. The SIG has two primary objectives: (i) to foster the timely, consistent and effective implementation of the Basel Committee's standards and guidelines; and (ii) 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. The WGFM makes policy recommendations on central bank services and developments in the foreign exchange, money and bond markets, and has been promoting regional bond market development through the Asian Bond Fund initiative. As part of the WGFM chairmanship, the HKMA initiated work to study the implications of financial benchmark reforms on the EMEAP region. The HKMA also chaired the Focused Meeting on Resolution, established under the EMEAP Working Group on Banking Supervision in September. 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 continued to co-operate closely with the ASEAN+3<sup>4</sup> authorities to strengthen the operations of the ASEAN+3 Macroeconomic Research Office, to monitor and analyse regional economies and support decision-making and refinement of the Chiang Mai Initiative Multilateralisation (CMIM)<sup>5</sup>.

### *Training*

The HKMA continued to provide 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, offshore renminbi businesses, consumer protection, bank culture reform, risk analysis and management, on-site examination practices, as well as the resolution regime for the banking sector.

### *Hong Kong's credit ratings*

The HKMA maintained close dialogue with international credit rating agencies to present a balanced and objective assessment of Hong Kong's credit strength and discuss their concerns over the rating outlook. During the year, S&P and Fitch affirmed Hong Kong's rating at AA+ while Moody's also kept Hong Kong's rating unchanged at Aa2, highlighting the stable credit outlook for Hong Kong.

<sup>4</sup> ASEAN+3 comprises 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.

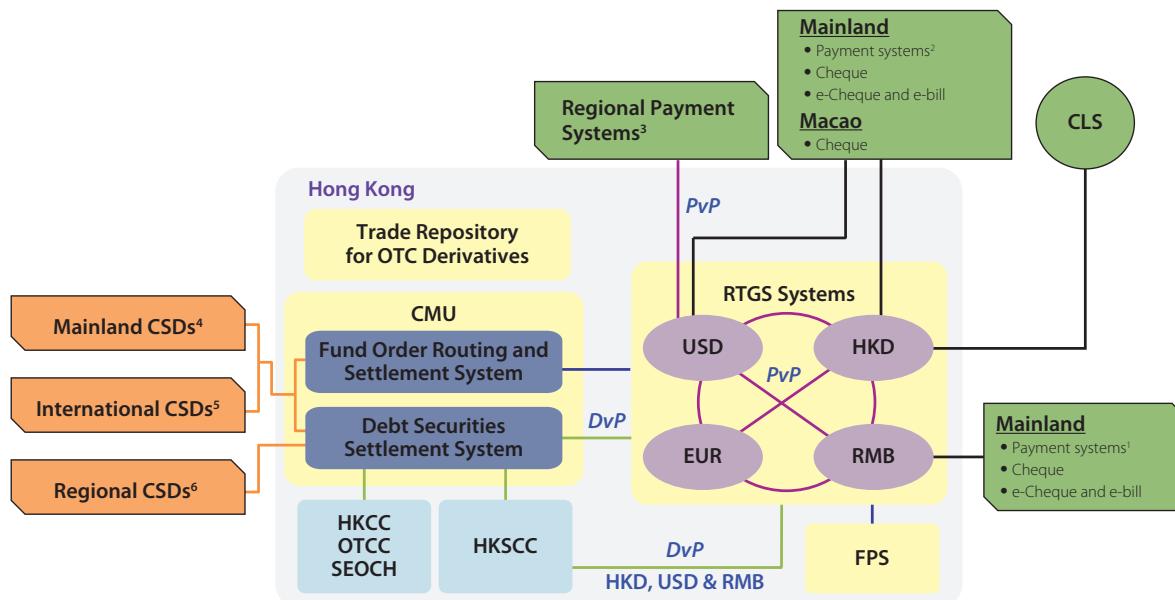
<sup>5</sup> Effective March 2010, the CMIM has become a regional mechanism that provides short-term US dollar support to participants facing liquidity shortages. In May 2012, the facility was enhanced by doubling the access fund to US\$240 billion and introducing a crisis prevention facility.

## International Financial Centre

### Hong Kong's financial infrastructure

The HKMA continued to enhance its multi-currency and multi-dimensional payment and settlement platform with extensive domestic and overseas system linkages, to maintain Hong Kong as a regional hub for the payment and settlement of funds and securities (Chart 1).

**Chart 1** Hong Kong's multi-currency financial infrastructure



1. CNAPS, CIPS and SZFSS

2. CDFCPS, RTGS links with Shenzhen and Guangdong

3. PvP links with Malaysia, Thailand and Indonesia

4. Cross-border links with CCDC and SHCH (Bond Connect) and CSDC (Mutual Recognition of Funds)

5. Cross-border links with Clearstream and Euroclear

6. 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)

CSDC – China Securities Depository and Clearing Corporation Limited

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)

DvP – Delivery-versus-Payment

PvP – Payment-versus-Payment

#### 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 2018, with a daily average transaction value of HK\$937.6 billion (36,357 items), compared with HK\$731.7 billion (31,868 items) in 2017.

In addition to settling large-value payments, CHATS also handles daily bulk clearings and the 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 auto-debit transactions) and automatic teller machine transfers (Chart 2).

## International Financial Centre

To further enhance the efficiency of retail payment services, Hong Kong dollar FPS was launched in September as an extension of Hong Kong dollar CHATS to enable the public to make instant retail fund transfers and payments across different banks or SVFs on a round-the-clock basis. It has operated smoothly since inception, with a daily average transaction value of HK\$1.4 billion (57,751 items).

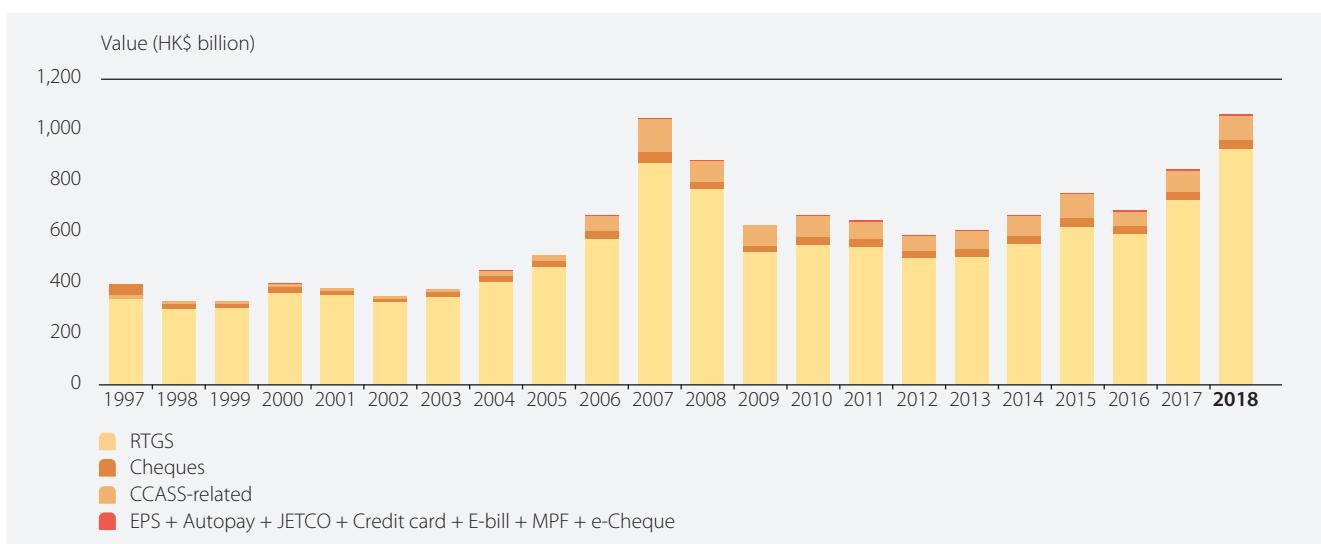
### *Foreign currency RTGS systems in Hong Kong*

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

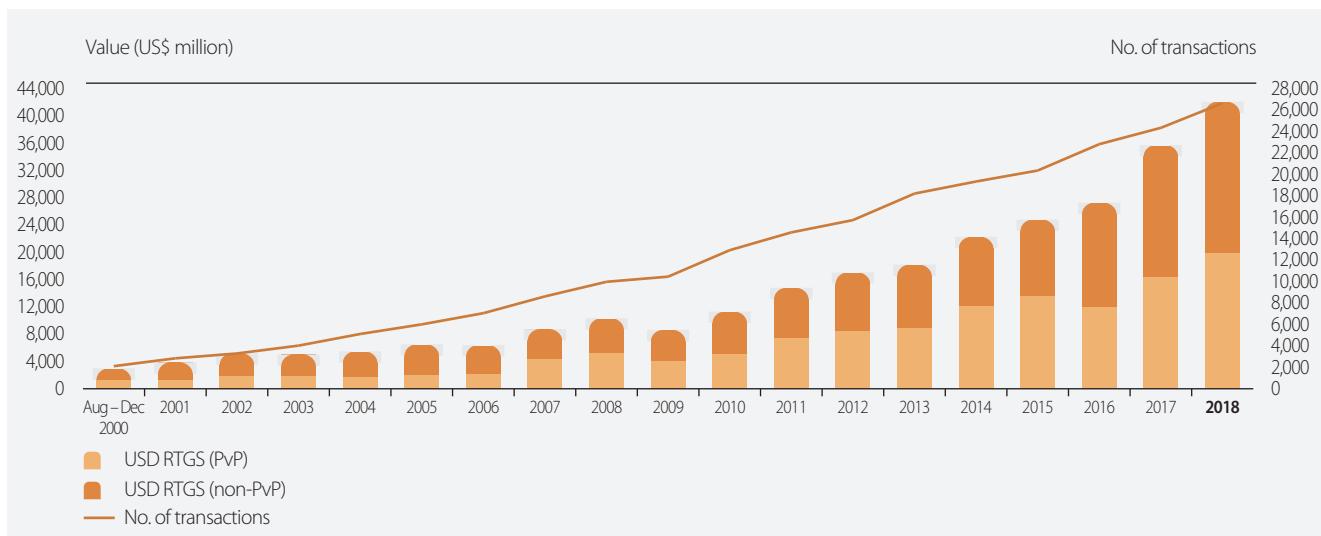
June 2012 from 6:30 p.m. to 5:00 a.m. the next day (Hong Kong time), providing a total of 20.5 hours for same-day value payments. The extension provides financial institutions around the world a much longer operating window to settle offshore and cross-border renminbi payments through Hong Kong's infrastructure. The average daily value of Mainland-Hong Kong cross-border renminbi payments amounted to around RMB149 billion in 2018, 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 3–5 and Table 2.

**Chart 2 Hong Kong dollar RTGS system average daily turnover**

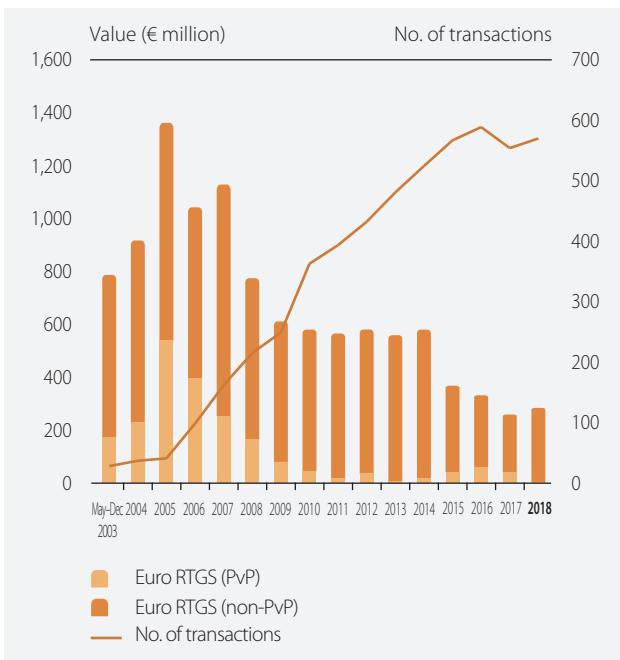


**Chart 3 US dollar RTGS system average daily turnover**

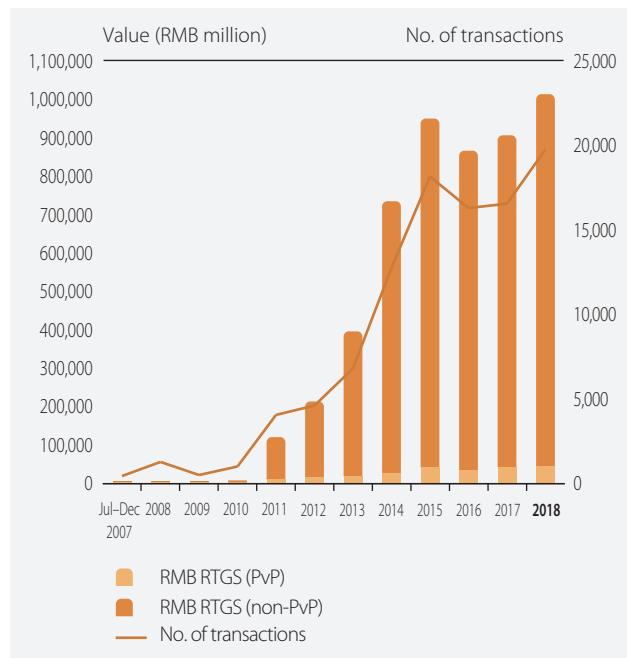


## International Financial Centre

**Chart 4 Euro RTGS system average daily turnover**



**Chart 5 Renminbi RTGS system average daily turnover**



**Table 2 Foreign currency RTGS systems**

RTGS systems	Launch date	Settlement institution or Clearing Bank	Number of participants at the end of 2018	Average daily turnover in 2018	Average daily transactions in 2018
US dollar RTGS system	August 2000	The Hongkong and Shanghai Banking Corporation Limited	Direct: 103 Indirect: 107	US\$42.0 billion	26,656
Euro RTGS system	April 2003	Standard Chartered Bank (Hong Kong) Limited	Direct: 36 Indirect: 17	€286 million	575
Renminbi RTGS system	June 2007	Bank of China (Hong Kong) Limited	Direct: 202	RMB1,010.1 billion	19,693

Like Hong Kong dollar FPS, renminbi FPS as an extension of renminbi CHATS has operated smoothly since inception in September, with a daily average transaction value of RMB29.8 million (723 items).

### Payment-versus-payment (PvP)

PvP is a mechanism for settling a foreign exchange transaction to ensure 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 2018, the transaction values of Hong Kong dollar, US dollar, euro and renminbi-related PvP transactions amounted to approximately HK\$15,359 billion, US\$4,651 billion, €0.5 billion and RMB10,608 billion respectively.

## International Financial Centre

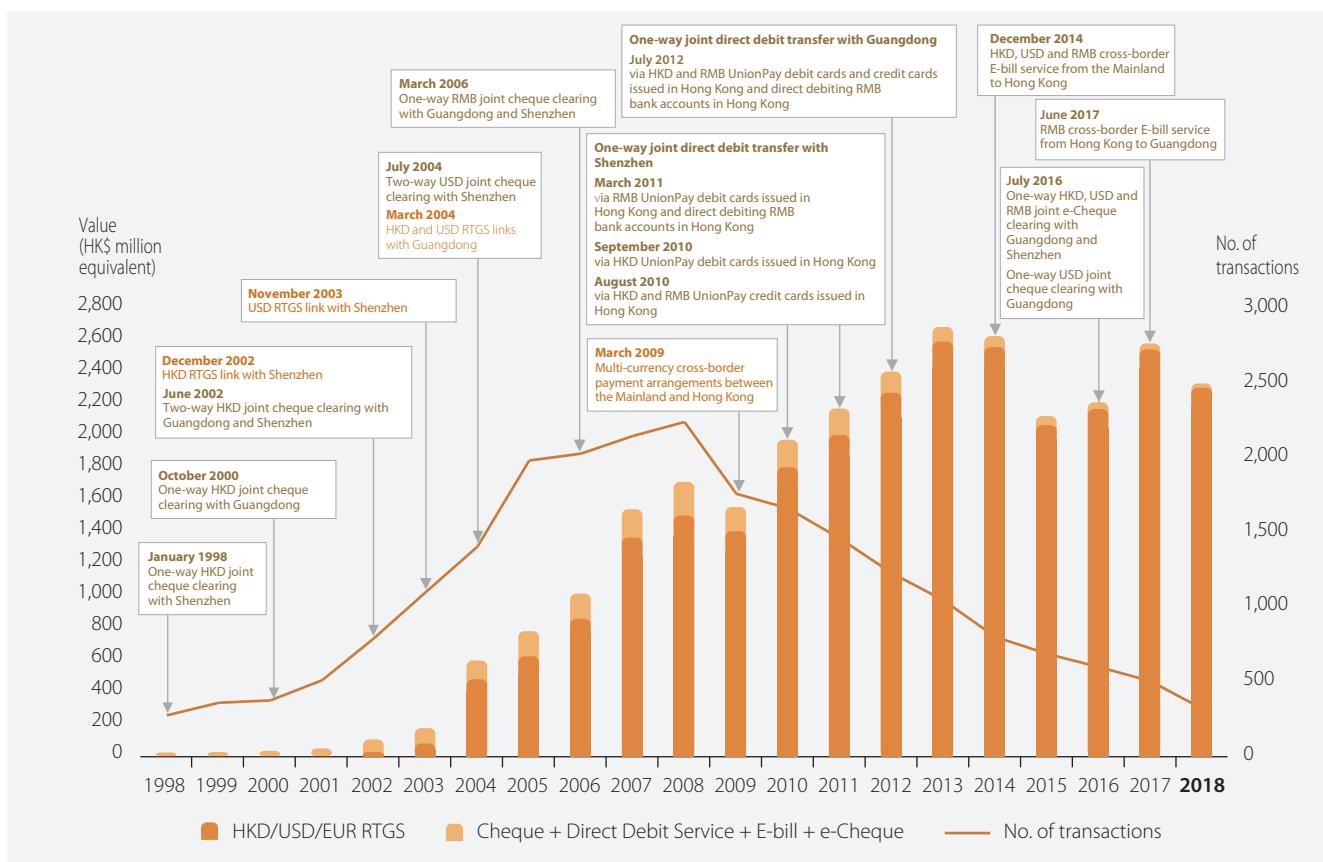
### Payment links with Mainland China

The HKMA continued to work closely with Mainland authorities to provide efficient cross-border payment links (Chart 6) to meet growing demand. In 2018, the average daily turnover of various system links, including RTGS cross-border links with Mainland's Domestic Foreign Currency Payment Systems, exceeded a total value equivalent to HK\$2 billion. The Hong Kong dollar and US dollar RTGS

system links with Shenzhen and Guangdong handled more than 11,000 transactions during the year, with a total value equivalent to HK\$523.3 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 2018, such facilities processed about 55,000 Hong Kong dollar, US dollar and renminbi cheques, with a value equivalent to around HK\$6 billion.

**Chart 6 Average daily turnover in cross-border arrangements with the Mainland**



## International Financial Centre

### *Payment links with Macao*

The one-way joint clearing facility for Hong Kong dollar and US dollar cheques between Hong Kong and Macao was launched in 2007 and 2008 respectively. In 2018, Hong Kong dollar cheques with a total value of about HK\$17 billion and US dollar cheques with a total value of about US\$71 million were cleared.

### *Debt settlement systems*

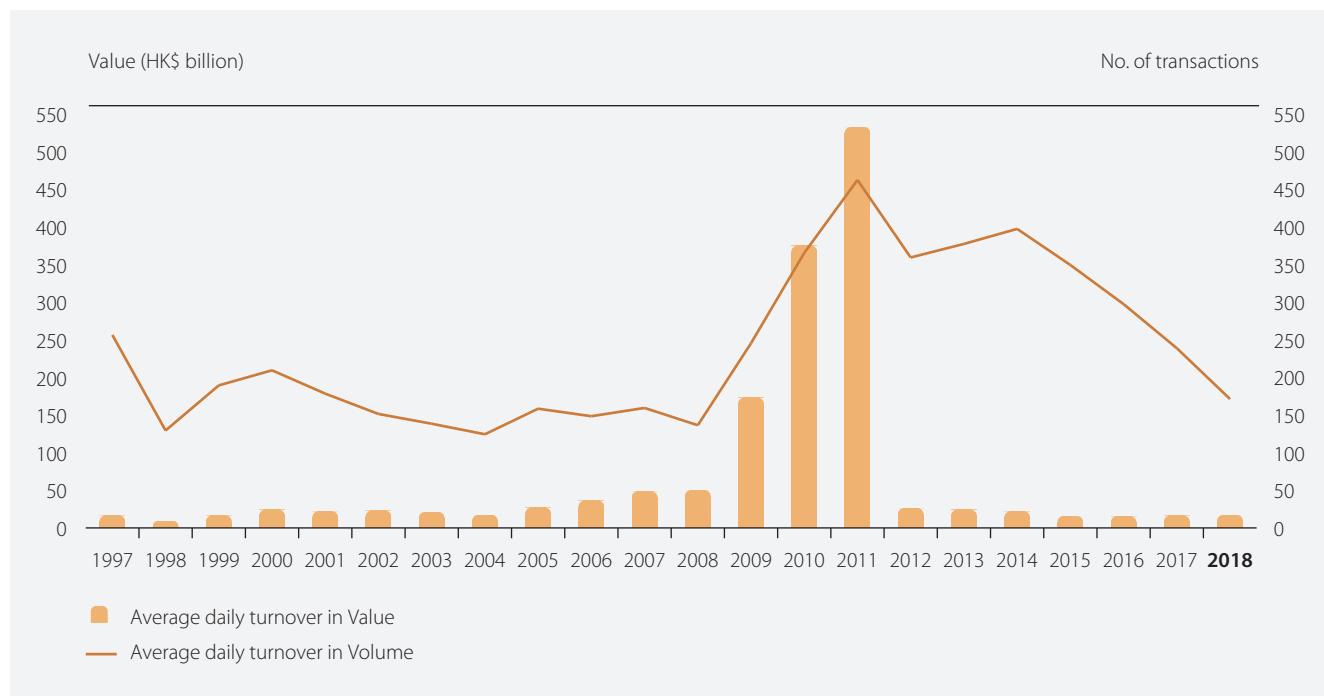
The CMU provides an efficient, one-stop clearing, settlement and depository service for Hong Kong dollar and foreign currency-denominated debt securities issued in Hong Kong. Through the linkages between the CMU and international/regional CSDs, investors outside Hong Kong can hold and settle securities lodged with the CMU, while Hong Kong investors can hold and settle foreign securities held with CSDs outside Hong Kong. In 2018, the CMU processed an average daily value of HK\$17.2 billion (171 transactions) in secondary market transactions (Chart 7). Among the debt securities

lodged with the CMU at the end of the year, the outstanding amount of Exchange Fund Bills and Notes stood at HK\$1,062.7 billion and the total amount of other debt securities was equivalent to HK\$893.8 billion, of which renminbi debt securities amounted to RMB164.2 billion.

### *Trade Repository for over-the-counter (OTC) derivatives*

The HKTR implemented the second phase of mandatory reporting in July 2017, covering the reporting of all five asset classes of derivative transactions and the reporting of the valuation information of transactions. By the end of 2018, the HKTR system had recorded a total of 2,550,510 outstanding transactions, compared with 1,832,287 in 2017. 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.

**Chart 7 CMU secondary market turnover**



## International Financial Centre

### Hong Kong's retail payment industry

*Stored value facilities (such as e-wallets, prepaid cards)*

The HKMA continued to promote the safety and efficiency of the retail payment industry through the implementation of 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.



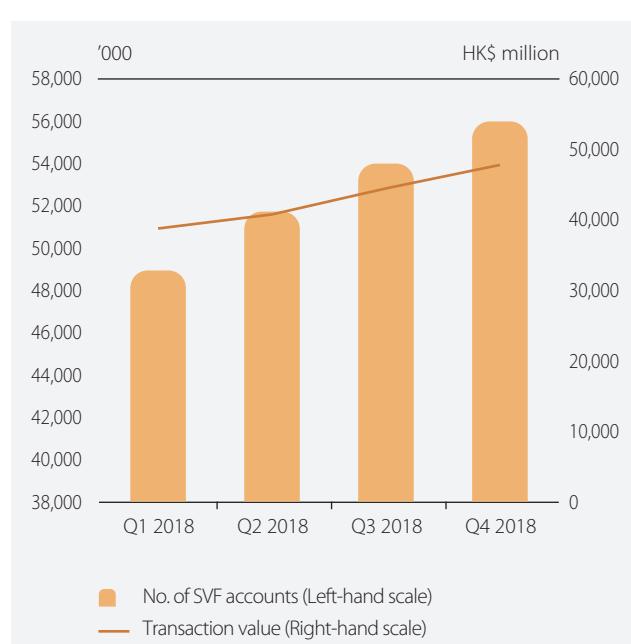
Since the commencement of the licensing regime, the HKMA had granted licences to a total of 16 SVF operators by the end of 2018 (Table 3). The licensees provided services ranging from mobile and internet payments to prepaid card payments to the public. They actively rolled out new services and expanded business networks over the past year to enhance user experience, and extended e-wallet usage across the border to facilitate Hong Kong people's making of retail payments in Mainland China. Furthermore, the launch of the FPS also benefited SVFs in terms of enhanced service offering. Meanwhile, the HKMA continues to receive and consider SVF licence applications on an on-going basis.

To supervise SVF licensees, the HKMA adopts a principle-and-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. The supervision is conducted through ongoing supervisory surveillance and on-site examinations. The HKMA keeps its supervisory approach under review and will introduce enhancement measures as necessary to ensure soundness of the SVF regime.

During the year, the SVF industry recorded continued growth in terms of the number of users, transaction number, as well as transaction value.

As at the end of 2018, the total number of SVF accounts stood at 56.1 million, and the transaction number and value for the fourth quarter of 2018 were 1.6 billion and HK\$48.1 billion respectively (Chart 8).

**Chart 8 Growth trend of the SVF industry in 2018**



## International Financial Centre

**Table 3 Register of SVF Licensees** (in alphabetical order) (as at 31 December 2018)

### SVF Licensees

33 Financial Services Limited  
 Alipay Financial Services (HK) Limited  
 Autotoll Limited  
 ePaylinks Technology Co., 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

### Licensed Banks (currently issuing SVFs)<sup>1</sup>

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.

During the year, the HKMA also 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.

### Retail payment systems

In August, the Monetary Authority designated the RPSs operated by Joint Electronic Teller Services Limited and EPS Company (Hong Kong) Limited for the processing of payment transactions involving participants in Hong Kong under the PSSVFO, on the grounds that proper functioning of the systems was of significant public interest. As a result, there are a total of six designated RPSs under the oversight of the HKMA (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 4 System operators of the designated RPSs** (in alphabetical order) (as at 31 December 2018)

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

### Electronic Cheque (e-Cheque)

The acceptance and coverage of the e-Cheque has continued to increase steadily since its launch in December 2015. To further promote a wider adoption of the e-Cheque, the Open API for e-Cheque Presentment Portal was launched on 15 October. It enables third-party service providers to develop innovative applications to help users such as SMEs streamline their operations in managing e-Cheques received.

## International Financial Centre

### Hong Kong's treasury markets

The HKMA organised its annual landmark event, the Treasury Markets Summit, jointly with the Treasury Markets Association (TMA) in September. The discussions focused on global economic developments, financial market co-operation within the GBA, and the potential impact of virtual banking and other fintech advancements on traditional treasury operations.

On the reforms of interest rate benchmarks, the HKMA monitored the international developments closely and worked closely with the TMA to prepare industry stakeholders for possible implications on their operations that may arise from such reforms.

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

### Over-the-counter derivatives market

The HKMA worked 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 implemented 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 in June 2018, the subsidiary legislation to expand the mandatory clearing obligation was put in place.

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 closely the international regulatory developments.

### PLANS FOR 2019 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. In particular, the HKMA will monitor closely the rolling-out of virtual banks in 2019. At the same time, the HKMA will implement the Open API functions in phases, facilitate eTradeConnect's connection with other regions and enhance the fintech talent pool via FCAS 2.0. To explore the application of new technologies in financial services and facilitate financial innovation, the HKMA will maintain close collaboration with its strategic partners and key stakeholders.

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

International investors' allocation to renminbi assets is expected to continue to gain traction as major market indices add or increase the weightings of renminbi assets. A large part of the inflows will continue to take place through Hong Kong's mutual access channels to the Mainland capital markets. In order to capitalise on this trend, the HKMA will continue to work closely with Mainland authorities to enhance and expand the existing mutual market access schemes, such as Bond Connect. Taking advantage of the GBA as a pilot ground for implementation of capital account liberalisation and financial sector opening-up measures, the HKMA will collaborate with Mainland authorities to study and introduce measures to promote further financial collaboration with a view to expanding the growth headroom for the financial services sector and deepening Hong Kong's capital markets.

## International Financial Centre

The HKMA will continue its outreach initiatives to promote Hong Kong as the global hub for offshore renminbi business, and step up its efforts in strengthening financial collaboration with overseas markets to seize opportunities arising from renminbi internationalisation and the continued opening up of the Mainland financial markets.

### 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 and fund investment activities. It will also work with the Government to develop Hong Kong's onshore private equity platform. To promote the further development of the green finance market in Hong Kong, the HKMA will assist the Government in issuing a benchmark Government green bond and organise more events to raise market awareness of and Hong Kong's profile in green finance.

### International and regional co-operation

The trade tensions and further tightening of financial conditions continue to pose challenges to the global financial system. Cross-border capital flows could remain volatile in the face of greater uncertainties about the pace of monetary policy normalisation in some advanced economies. Despite relatively strong fundamentals in Asia, its resilience may be tested in situations of abrupt capital outflows or sharp repricing of assets. Against this backdrop, there is a need to strengthen cross-border co-operation 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 maintain smooth and reliable operation of the various financial infrastructures to strengthen their overall resilience and to meet international standards.

### 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

Continued support will be provided to enhance the 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 develop detailed rules for implementing other aspects of the regulatory regime for the OTC derivatives market.