Hong Kong strengthened its position as an international financial centre in 2011 despite the weakening global economic recovery and sharp rise in financial market tensions amid the deepening European sovereign debt crisis. Renminbi business grew rapidly, enabling Hong Kong to develop as the premier offshore renminbi business centre. The HKMA continued to participate actively in international discussions on reforms to improve the resilience of the global financial system, and has strengthened regional surveillance and co-operation to promote financial stability. Hong Kong's robust fiscal performance and the resilience of its financial system were recognised by credit rating agency Standard & Poor's, which affirmed Hong Kong's top-rated AAA rating.

#### **OVERVIEW**

Global economic and financial market conditions deteriorated rapidly in the second half of 2011, as the escalating debt crisis in the peripheral economies of the euro area triggered concerns about fiscal sustainability of core euro area economies and the health of European banks. While Asian economies remained resilient amidst heightened external uncertainties, they were facing increasing downside risks given the global economic slowdown and continued turbulence in the global financial markets. Closer international and regional co-operation to step up market surveillance and co-ordinate policy responses has been particularly crucial. Meanwhile, international efforts continued to follow through with the financial regulatory reform agenda set by the Group of Twenty (G20)<sup>1</sup> after the global financial crisis to improve the resilience of the global financial system.

The HKMA actively participates in international discussions and exchanges views with the international community on issues of significance to the global and regional financial stability. In 2011 it continued to co-ordinate the macrosurveillance work for the Monetary and Financial Stability Committee established under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP).<sup>2</sup> The HKMA also took part in meetings and forums of multilateral organisations, notably the Financial Stability Board (FSB)<sup>3</sup>, which plays a key role in the reform of the international financial system. In addition, the HKMA continued to work closely with ASEAN+3<sup>4</sup> authorities on various implementation work relating to the Chiang Mai Initiative Multilateralisation (CMIM)<sup>5</sup>, including the establishment of the ASEAN+3 Macroeconomic Research Office - an independent regional surveillance unit to monitor and

analyse regional economies and support CMIM decision making.

There was remarkable progress in the development of Hong Kong as the premier offshore renminbi business centre. Following close discussions with the Mainland authorities, further measures were introduced to promote the use and circulation of renminbi funds between the onshore and offshore markets. Renminbi financial activities expanded significantly, with Hong Kong becoming a global hub for renminbi trade settlement, financing and asset management, supporting overseas corporates and financial institutions in conducting offshore renminbi businesses.

The safe and efficient operation and the continued development of the financial infrastructure in Hong Kong played a significant role in reinforcing the competitive edge of Hong Kong as an international financial centre. During the year different components of the financial infrastructure operated smoothly. A series of enhancements was made to the renminbi Real Time Gross Settlement (RTGS) system. Leveraging on the renminbi clearing platform, Hong Kong has developed into the premier offshore renminbi business centre. The HKMA continued to make progress on the development of a local trade repository for over-the-counter (OTC) derivatives trades. At the cross-border level, there has been further progress in launching the Pilot Platform and add-on services to facilitate cross-border transactions and collateral management in bonds. The HKMA has also conducted a review on retail payment with several recommendations to improve the efficiency of the retail payment infrastructure in Hong Kong.

- <sup>3</sup> 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 implement 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>4</sup> ASEAN+3 comprises the 10 ASEAN member countries (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam), together with China, Japan and Korea.
- <sup>5</sup> With access of up to US\$120 billion, the CMIM is a regional joint-defence mechanism which provides short-term US dollar support to participants facing liquidity shortages. The facility was established under the aegis of ASEAN+3 and became effective in March 2010.

<sup>&</sup>lt;sup>1</sup> The G20 was established in 1999, bringing together the finance ministers and central bank governors of industrialised and emerging economies to facilitate international economic policy co-operation. Member economies include Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Republic of Korea, Russia, Saudi Arabia, South Africa, Turkey, the UK, the US and the European Union. In 2008, amid the global financial crisis, G20 leaders held their first meeting in Washington D.C. Since then, G20 leaders have convened on a regular basis.

<sup>&</sup>lt;sup>2</sup> EMEAP is a co-operative forum of 11 central banks and monetary authorities in the East Asia 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.

#### **REVIEW OF 2011**

#### International and regional co-operation

With increasing globalisation, and closer economic and financial integration in Asia, the HKMA organises and participates in international and regional initiatives and discussions on a wide range of issues. It attended meetings of the Asia-Pacific Economic Co-operation (APEC), the FSB and the Bank for International Settlements (BIS). Much of the work of the international financial community focused on reinvigorating economic growth and ensuring financial stability amid the deepening European debt crisis, while continuing to push forward efforts to strengthen and reform the international financial system. Significant progress has been achieved in implementing the global financial regulatory reforms, led principally by the G20. Hong Kong is involved in implementing the G20's initiatives and recommendations through different channels, including the HKMA's participation in the FSB Plenary, Regional Consultative Group for Asia, and Standing Committees on Assessment of Vulnerabilities and on Supervisory and Regulatory Co-operation.

In contributing to the reform of the international financial system, the HKMA is pursuing the implementation in Hong Kong of the relevant recommendations and best practices that are appropriate to local circumstances. Additional information on the HKMA's role in international co-operation can be found in the Chapter on Banking Stability.

# Promoting monetary and financial stability in Asia

The HKMA continued to participate actively in the activities of EMEAP to promote regional co-operation. As co-ordinator of the macro-surveillance work for the EMEAP Monetary and Financial Stability Committee, the HKMA conducted analyses and prepared the Committee's half-yearly Macro-Monitoring Report to assess the region's risks and vulnerabilities, in particular those associated with the over-heating pressures in the first half of the year and the rising risks to financial stability amid the worsening European sovereign debt crisis later in the year. The HKMA communicated closely with regional counterparts, including fellow EMEAP members, on issues of common interest such as implications of the international financial regulatory reforms for the region and raised, where appropriate, the collective views of the region to contribute to the international discussions.

The HKMA co-hosted the Working Party on Monetary Policy in Asia with the BIS in June 2011, focusing on topical issues of great interest to policymakers in the region such as capital flows management and the effectiveness of macro-prudential tools in achieving financial stability.

The HKMA continued to work closely with ASEAN+3 authorities on the implementation work relating to CMIM. In April 2011 the ASEAN+3 Macroeconomic Research Office was established under the CMIM to monitor the macroeconomic and financial soundness of regional economies and facilitate effective decision-making of CMIM participants. As one of the deputy chairs of the EMEAP Working Group on Payment and Settlement Systems, the HKMA has been working closely with the People's Bank of China (PBoC) and Bank Indonesia (the chair and another deputy chair respectively) to co-ordinate the Group's effort in sharing experiences and exchanging information on developments in domestic and cross-border payment and settlement systems. The HKMA is also taking the lead role in its sub-group on cross-border co-operation and development.

The HKMA participated in the Basel Committee on Banking Supervision – Committee on Payment and Settlement Systems Working Group on Intraday Liquidity Management to develop indicators to facilitate supervisors' monitoring of banks' management of their intraday liquidity risks.

#### Hong Kong's sovereign credit ratings

The HKMA continued to engage international credit rating agencies to present a balanced assessment of Hong Kong's economic and financial developments. These efforts contributed to the affirmation of Hong Kong's sovereign credit ratings by all major credit rating agencies in 2011. Standard & Poor's affirmed Hong Kong's AAA rating, the agency's highest rating category. This reflected the agency's recognition of Hong Kong's aboveaverage growth prospects, strong external position and consistently robust fiscal performance. Moody's Investors Service and Fitch Ratings both affirmed Hong Kong's ratings at Aa1 and AA+ respectively, just one notch below triple-A.

# Development of Hong Kong as the offshore renminbi business centre

The HKMA's intensified efforts resulted in remarkable progress in the development of Hong Kong as the offshore renminbi business centre. On the policy front, the support by the Central Government for the development of Hong Kong as the offshore renminbi business centre was enshrined in the National 12th Five-Year Plan promulgated in March 2011. Following the announcement by the Vice-Premier of the State Council Mr Li Kegiang during his visit to Hong Kong in August, a series of new specific measures has been implemented, including expansion of the geographical coverage of the renminbi trade settlement scheme to the entire Mainland that month, promulgation of the administrative arrangements for renminbi foreign direct investments and introduction of the Renminbi Qualified Foreign Institutional Investors (RQFII) scheme. These measures help promote the use and circulation of renminbi funds between the onshore and offshore markets, and provide substantial impetus for the development of the Hong Kong offshore renminbi business centre. Furthermore, in November 2011 the PBoC and the HKMA signed a renewed currency swap agreement for a term of another three years, with its size expanded to RMB400 billion/HK\$490 billion. The renewal and expansion of the agreement is crucial in helping the HKMA to provide liquidity, when necessary, to maintain the stability of the offshore renminbi market in Hong Kong.



Governor of the People's Bank of China, Mr Zhou Xiaochuan (left), and the Chief Executive of the HKMA, Mr Norman Chan, sign a renewed currency swap agreement for a term of another three years, with its size expanded to RMB400 billion/HK\$490 billion.

In 2011 about 8% of Mainland's external trade, or RMB2,081 billion, was settled in renminbi. Meanwhile, Hong Kong has developed into the major offshore renminbi trade settlement centre, with renminbi trade settlement handled by banks in Hong Kong amounted to RMB1,914.9 billion for the year, more than five times the amount for 2010. Supported by the increase in renminbi trade settlement and other financial activities, renminbi deposit grew to RMB588.5 billion at the end of the year.

As the renminbi liquidity pool in Hong Kong continued to expand, renminbi financial intermediary activities became more vibrant. In particular, the development of offshore market of renminbi bonds (also known as "dim sum bonds") in Hong Kong was very encouraging, with bond issuance exceeding RMB100 billion during the year, three times the total of 2010. Renminbi lending business of banks also picked up in 2011. The outstanding renminbi loan amount surged to RMB30.8 billion at the end of 2011, from less than RMB2 billion at the end of 2010.

In addition, apart from serving the needs for renminbi financial services locally, Hong Kong as the offshore renminbi centre has been playing an increasingly important role in supporting overseas corporates and financial institutions in conducting offshore renminbi businesses. At the end of 2011, a total of 187 banks were participating in Hong Kong's renminbi clearing platform, of which 165 were subsidiaries and branches of overseas banks and overseas presence of Mainland banks, representing a payment network covering more than 30 countries in six continents. About 70% of the renminbi deposits were held by corporate customers, of which 15% were from overseas corporates. Moreover, overseas banks have also been using the renminbi correspondent banking services provided by banks in Hong Kong, with the number of such correspondent banking accounts rising from less than 200 to over 900 during the year.

Efforts have also been made to increase the awareness of overseas corporates and financial institutions about expanding use of renminbi and the comprehensive onestop services that can be offered by Hong Kong's renminbi financial platform, through overseas roadshows and other means, targeting places which have growing trade and investment links with Mainland. In 2011, four overseas roadshows were conducted in Australia, Russia, the UK and Spain to showcase Hong Kong as the premier offshore renminbi business centre. The HKMA will continue to conduct overseas roadshows in the coming year.



Chief Executive of the HKMA, Mr Norman Chan, exchanges thoughts with Deputy Finance Minister of the Russian Federation, Mr Sergey Storchak at the renminbi seminar in Moscow.

To foster co-operation between Hong Kong and London on the development of offshore renminbi business, a joint private-sector forum, facilitated by the HKMA and the UK Treasury, was launched in January 2012. The forum will focus on exploring synergies by enhancing linkages between Hong Kong and London, specifically regarding clearing and settlement systems, market liquidity and the development of new renminbi-denominated financial products. Meanwhile, the HKMA is also working to extend the operating hours of the renminbi RTGS system in Hong Kong to 15 hours, from 8:30 a.m. to 11:30 p.m. (Hong Kong time) by the end of June 2012. This will give financial institutions in London and other financial centres in the European time zone an extended window to settle offshore renminbi payments through the Hong Kong infrastructure.

#### CEPA

The Eighth Supplement to the Closer Economic Partnership Arrangement (CEPA) was signed in December 2011. Two measures have been added for the banking sector, namely, to allow any Mainlandincorporated subsidiary of Hong Kong banks to engage in the sale and distribution of mutual funds, and to support Mainland banks to make use of Hong Kong's international financial platform to develop their international businesses.

#### Training

Training programmes are conducted in Hong Kong and the Mainland for officials of the PBoC and the China Banking Regulatory Commission. During the year, 1,407 officials from the Mainland attended 16 courses (3,097 man-days) covering bank accounting management; treasury management; risk management and internal control; human resources management; financial stability; and banking supervision.

The HKMA also provided training on request to other external parties, including a regional course on asset and liability management under the APEC financial regulators' training initiative, and other courses for Mainland commercial banks and enforcement agencies in the region. A total of 193 participants attended these seminars in 2011.

#### Strengthening Hong Kong as a regional hub

Following the issuance of the White Paper on the Pan-Asian Central Securities Depositories (CSD) Alliance project in June 2010, the HKMA continued to work with Bank Negara Malaysia and Euroclear with an aim of developing a common post-trade processing infrastructure for Asian debt securities. As a result of these concerted efforts, the Pilot Platform for cross-border investment and settlement of debt securities was launched on 30 March 2012. In addition, following the discussions and consensus reached by the Task Force of the Pan-Asian CSD Alliance project, the HKMA commenced development of two add-on services to the Pilot Platform which would facilitate the gradual migration of the Pilot Platform to the Common Platform Model. The two add-on services included crossborder collateral management services and corporate action services. In addition, the HKMA continued to participate in the meetings of Asian Bond Market Initiative co-ordinated by the Asian Development Bank and to contribute to the development of initiatives in regional bond markets.

#### Leveraging the renminbi advantage

During the year the HKMA attended 56 seminars and 241 marketing calls in various cities on the Mainland, the Asia-Pacific region, Europe, and North America to promote Hong Kong's financial infrastructure, in particular the renminbi RTGS system. As a result, the number of direct participants of the renminbi RTGS system increased from 96 at the end of 2010 to 158 at the end of 2011, of which 33 were overseas banks without presence in Hong Kong. In addition, a total of around RMB1,702.5 billion of trade transactions were settled in Hong Kong's renminbi RTGS system in 2011, with a record monthly turnover of RMB216 billion in December 2011.

#### **Debt market development**

Proposed refinements to the Qualifying Debt Instruments Programme, announced by the Financial Secretary in his 2010-11 Budget Speech, were implemented through legislative amendments in March 2011. These refinements will increase the tax concessions for qualifying debt securities under the Programme to further develop the local debt market. Besides assisting in the legislative process, the HKMA conducted briefings for market participants shortly after the implementation of the refinements.

#### **Government Bond Programme**

The HKMA continued to co-ordinate the implementation of the Government Bond Programme, consisting of both institutional and retail bond issuances. For the institutional part, six bond tenders totalling \$17.5 billion, with tenors ranging from two to 10 years, were completed in 2011. The amount of institutional bonds outstanding at the end of 2011 was \$38 billion. The HKMA will maintain close contact with market participants and consider measures to refine the institutional part.

The Financial Secretary announced in the 2011-12 Budget the issuance of up to \$10 billion inflation-linked retail bond (iBond), under the Government Bond Programme to help improve retail investors' understanding of the bond market and increase their interest in bond investment. The HKMA was responsible for putting together the issuance, with assistance from the relevant service providers. The iBond was well-received, attracting over 155,000 applications, with application monies exceeding \$13 billion. A total of \$10 billion iBond was issued to Hong Kong residents on 28 July.

#### **Development of Islamic finance**

The HKMA continued to develop Islamic finance in Hong Kong by:

- setting up necessary infrastructure
- enhancing Hong Kong's international linkages with other major Islamic financial markets
- promoting market knowledge of Islamic finance
- encouraging product development.

In particular, one of the major tasks of the HKMA in the area of Islamic finance has been to assist with the preparation of a legislative proposal to amend the Inland Revenue Ordinance and the Stamp Duty Ordinance in Hong Kong with a view to levelling the playing field for issuance and trading of common types of Islamic bonds (sukuk) vis-à-vis their conventional counterparts in terms of tax treatments. The HKMA will continue to engage major market participants in the Islamic finance industry with a view to ensuring that the legislative amendments can meet the latest market needs.

#### Promotion of asset management business

To promote Hong Kong's asset management industry and reinforce its position as a leading asset management centre, the HKMA, together with other agencies, has been exploring ways to improve the international competitiveness of Hong Kong's financial markets and provide a more favourable tax and regulatory environment for such businesses. In conjunction with other agencies, the HKMA also took part in joint promotional roadshows to New York, London, Geneva, Zurich and Luxembourg to highlight the strengths of Hong Kong's financial platform, focusing on its advantages in the process of the Mainland's gradual financial liberalisation and the wider external use of the renminbi.

The HKMA also visited asset managers in major financial centres, either in small group or on a one-on-one basis, to listen to their business plans in Asia and their views on potential challenges on their operations in Hong Kong. Meetings were held with private banking institutions, pension funds, mutual funds, private equity firms, hedge funds and fund administrators in Beijing, Boston, Edinburgh, Frankfurt, Geneva, Guangzhou, London, Luxembourg, New York, Paris, Shanghai, Shenzhen, Singapore and Zurich.

#### **OTC derivatives market regulation**

The HKMA has been working closely with the Financial Services and the Treasury Bureau (FSTB) and the Securities and Futures Commission (SFC) to develop a regulatory regime for the OTC derivatives market in Hong Kong, and has made significant progress. When introduced, the regime will contribute to minimising systemic risk and enhancing transparency in the OTC derivatives market.

In October 2011 the HKMA and the SFC issued a joint consultation paper which detailed how the regime would likely to be cast and invited the public to provide feedback on the proposals. Valuable feedback was received and will be taken into account as appropriate when finalising the legislative details of the regulatory framework. The HKMA continued to engage and regularly update industry through a number of channels, including the OTC Derivatives Market Working Group under the Treasury Markets Association (TMA) and its newly formed sub-groups which address specific regulatory and infrastructural issues.

Meanwhile, the HKMA participated in such international forums as the OTC Derivatives Working Group established under the FSB, OTC Derivatives Regulators' Forum and a Study Group established under the Committee on the Global Financial System (CGFS), contributing to the relevant international initiatives and monitoring closely the international regulatory developments.

#### **Treasury Markets Association**

The HKMA maintained its collaborative working relationship with the TMA, providing strategic support as necessary. The TMA strives to raise market professionalism, facilitate market development, encourage the development of new markets and products, and strengthen Hong Kong's ties with the Mainland and with financial centres around the world. The Association has 1,774 Individual Members and 81 Institutional Members from banks, investment houses, insurance companies, money brokers, financial information services providers, exchanges and large corporations. Under the chairmanship of the HKMA Deputy Chief Executive, Eddie Yue, the TMA achieved pleasing results in 2011:

- introducing a new professional qualification framework – the framework covers the entire spectrum of training needs for treasury market participants in different stages of their careers. As part of the new framework, the TMA launched its Level II Graduate Certificate in Treasury Market Management with the School of Professional and Continuing Education of The University of Hong Kong
- releasing the TMA Code of Conduct and Practice comprising international standards with suitable local adaptations, the Code serves as a benchmark for best practices in Hong Kong's treasury markets, setting out the requirements on ethical standards, risk management and dealing practices
- **launching the spot USD/CNY(HK) Fixing** the reference rate is instrumental in further expanding Hong Kong's offshore renminbi market and the related lines of business
- continuing efforts to raise market professionalism around 50 seminars, workshops and talks were organised for individual members and staff of institutional members
- co-organising the Treasury Markets Summit with the HKMA – the Summit was held in Beijing in December with focuses on renminbi internationalisation as well as Hong Kong's role as an asset management centre, bringing together over 200 market participants, regulators and academics.

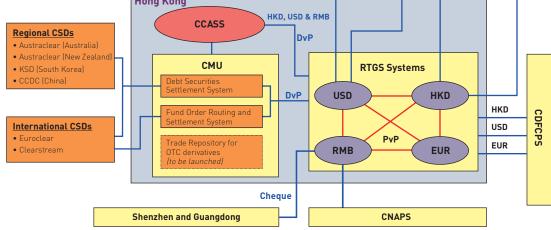
#### Hong Kong's financial infrastructure

Chart 1

The HKMA plays a major role in developing Hong Kong's financial infrastructure to reinforce its status as a regional hub for payment and settlement of funds and securities. Over the years, continuous effort and resources have been devoted to building a robust and efficient multi-currency, multi-dimensional platform, with extensive domestic and overseas system linkages (Chart 1). Key achievements include the establishment of RTGS systems for the Hong Kong dollar, the US dollar, the euro and the renminbi; and developing bilateral links between the local RTGS systems and overseas RTGS systems, and between the Central Moneymarkets Unit (CMU) and regional and international CSDs, such as Euroclear, Clearstream, and the depositories in Australia, New Zealand, South Korea and the Mainland.



Hong Kong's multi-currency payment and settlement infrastructure



BI-RTGS – Bank Indonesia Real Time Gross Settlement (Indonesia's rupiah RTGS system) CCASS – Central Clearing and Settlement System (settlement system for shares) CCDC – China Central Depository & Clearing Co., Ltd.

CDFCPS – China's Domestic Foreign Currency Payment System

CLS – Continuous Linked Settlement

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

CNAPS - China National Advanced Payment System

KSD – Korean Securities Depository

RENTAS – Real Time Electronic Transfer of Funds and Securities (Malaysia's ringgit RTGS system)

DvP - Delivery-versus-Payment

PvP - Payment-versus-Payment

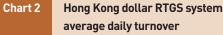
#### Hong Kong dollar RTGS system

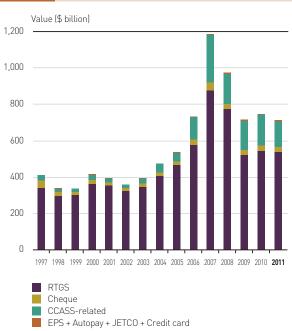
The Hong Kong dollar Clearing House Automated Transfer System (CHATS), which operates on an RTGS basis, is responsible for clearing all Hong Kong dollar interbank payments, and continues to run smoothly and efficiently. It has a direct link with the CMU to provide both realtime and end-of-day delivery-versus-payment settlement services. Hong Kong Interbank Clearing Limited (HKICL), the operator of the RTGS systems, was established in 1995 and is owned equally by the HKMA and the Hong Kong Association of Banks. In 2011 the HKICL processed a daily average of \$539 billion in CHATS transactions (22,682 items), largely unchanged from \$545 billion in 2010.

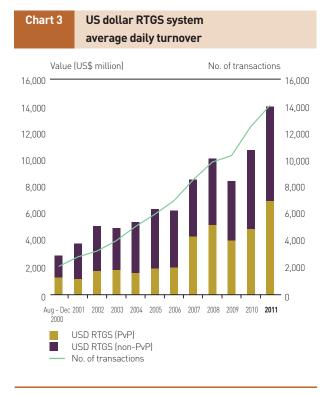
In addition to settling large-value payments, CHATS also handles daily bulk clearings of stock market transactions, credit card transactions, cheques, small-value bulk electronic payment items (EPS, auto-credit and auto-debit transactions) and automatic-teller-machine transfers (Chart 2). Banks can use their Exchange Fund Bills and Notes (EFBN) to obtain interest-free intraday liquidity through intraday repurchase agreements with the HKMA to settle their interbank payments.

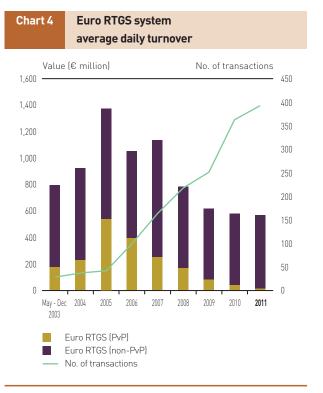
#### Foreign currency RTGS systems in Hong Kong

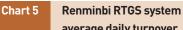
The US dollar, euro and renminbi RTGS systems were operating smoothly. The average daily turnover of the renminbi RTGS system increased dramatically in 2011 amid the rapid expansion of renminbi business in Hong Kong. The average daily turnovers and other details of the foreign currency RTGS systems are listed in Charts 3 – 5 and Table 1.



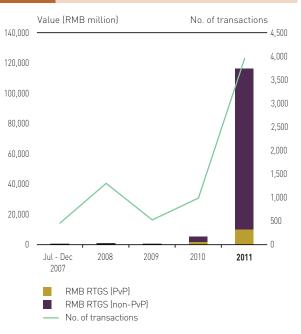








average daily turnover



#### Table 1 Foreign currency RTGS systems

RTGS systems	Launch date	Settlement institution or Clearing Bank	Number of participants at the end of 2011	Average daily turnover in 2011	Average daily transactions in 2011
US dollar RTGS system	August 2000	The Hongkong and Shanghai Banking Corporation Limited	Direct: 90 Indirect: 129	US\$14.2 billion	14,225
Euro RTGS system	April 2003	Standard Chartered Bank (Hong Kong) Limited	Direct: 33 Indirect: 19	€569.8 million	392
Renminbi RTGS system	June 2007	Bank of China (Hong Kong) Limited	Direct: 158*	RMB114.4 billion	3,888

\* Referring to those that have completed the registration of direct membership for the renminbi RTGS system among over 180 participating banks that have signed the Clearing Agreement with the Clearing Bank.

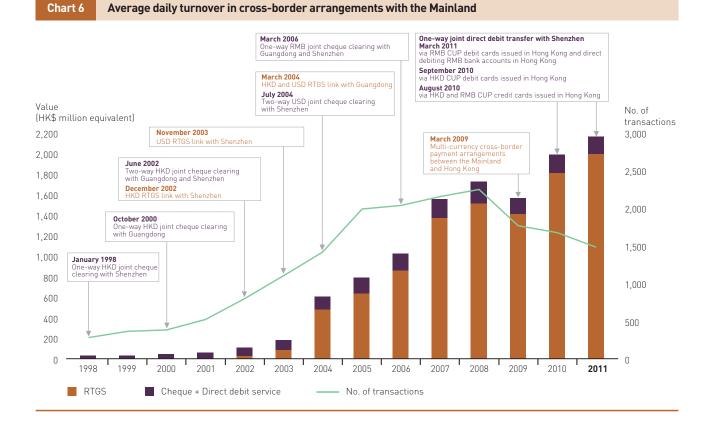
#### Payment-versus-payment

Payment-versus-payment (PvP) is a mechanism for settling a foreign exchange transaction to ensure that payments in the two currencies involved are settled simultaneously. Within 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 two crossborder PvP links, with Malaysia's ringgit RTGS system in November 2006 and Indonesia's rupiah RTGS system in January 2010. PvP greatly improves settlement efficiency and eliminates settlement risk arising from time lags in settlements and from time-zone differences (known as Herstatt risk). In 2011 the transaction value of Hong Kong dollar, US dollar, euro and renminbi-related PvP transactions amounted to about \$4,393 billion, US\$1,739 billion, €4 billion and RMB2,423 billion respectively.

#### Payment links with the Mainland

The HKMA continues to work closely with Mainland authorities in providing efficient cross-border payment links to meet growing demands. The use of these services has risen gradually over the years. In 2011 the average daily turnover handled by the various system links was equivalent to over \$2 billion, including the RTGS cross-border links with the Mainland's Domestic Foreign Currency Payment Systems launched in March 2009 (Chart 6).

The RTGS system links with Shenzhen and Guangdong handled more than 20,000 transactions during the year, with a total value equivalent to \$469 billion. The system allows cross-border payments in Hong Kong dollar and US dollar to be settled efficiently and safely between banks in Hong Kong and their counterparts in Shenzhen and Guangdong.



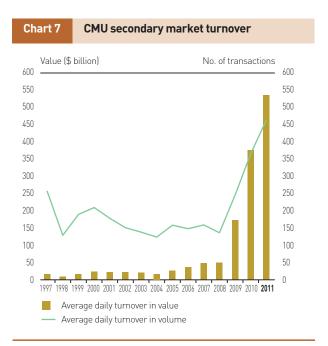
The two-way joint cheque-clearing facilities processed about 325,000 Hong Kong dollar and US dollar cheques in 2011, with a value equivalent to \$40 billion. The facilities shortened the clearing time for cheques drawn on banks in Hong Kong and presented in Shenzhen and Guangdong, and for cheques drawn on banks in Shenzhen and Guangdong and presented in Hong Kong. Since March 2006, the joint cheque-clearing facilities have been expanded to cover renminbi cheques drawn on banks in Hong Kong, and presented in Shenzhen and Guangdong for consumer spending. In 2011 renminbi cheques with a total value equivalent to around \$50 million were cleared.

#### Payment links with Macau

The one-way joint clearing facility for Hong Kong dollar cheques between Hong Kong and Macau was launched in August 2007 and a similar facility for US dollar cheques was launched in June 2008. The facilities have reduced the time required for clearing Hong Kong dollar and US dollar cheques issued by banks in Hong Kong and presented in Macau from four or five days to two days. In 2011 Hong Kong dollar cheques with a total value of about \$24 billion and US dollar cheques with a total value of about US\$10 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 and regional CSDs, overseas investors can hold and settle securities lodged with the CMU. They also help Hong Kong investors hold and settle foreign securities held with overseas CSDs. In 2011 the CMU processed an average daily value of \$533 billion (462 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 EFBN was \$655 billion and the total amount of other securities was equivalent to \$610 billion.



#### **Development of financial infrastructure**

In 2011 the HKMA completed a number of projects to promote the safety and efficiency of the financial infrastructure, and capture new business opportunities to further develop Hong Kong as a regional payment and settlement hub.

#### Enhancement of the renminbi RTGS system

To assist Hong Kong to fully capture new business opportunities arising from the further expansion of renminbi market activities in Hong Kong, the HKMA, in collaboration with the Clearing Bank of the renminbi RTGS system, accelerated the process of enhancing the system, bringing the renminbi RTGS system largely in line with the Hong Kong dollar RTGS system in terms of functionality. On the back of the improved infrastructure, money settlement for the first renminbi initial public offering (IPO) (of a renminbi Real Estate Investment Trust) was efficiently handled through the system in April.

The enhancements made to the renminbi RTGS system in 2011 include:

- broadening the scope of the types of renminbi paper clearing items in the daily bulk settlement runs – apart from paper cheques, the renminbi paper clearing system was enhanced to accept other paper clearing items including cashier's order, gift cheque, dividend warrant, demand draft, remittance advice and traveller's cheque. The acceptance of renminbi cashier's order helps facilitate investors' applications for IPOs of renminbi-denominated stocks and other investment products
- launching renminbi intra-day and overnight repo arrangements – it helps strengthen banks' liquidity management ability, in particular during high liquidity-demand periods

- Launching same-day refund of Electronic IPO monies in renminbi – similar to the Electronic IPO (EIPO) refund mechanism available in the Hong Kong dollar RTGS system, the enhancement shortens the settlement cycle of EIPO refund for renminbidenominated IPOs by enabling EIPO subscribers to receive refunds on the refund day instead of on the next day
- launching renminbi autopay system an electronic clearing system on a multilateral netting basis for autopay service was introduced to the renminbi RTGS system, providing an efficient and convenient platform for the auto-transfer of renminbidenominated payments on behalf of customers at the cross-bank level within Hong Kong and across the border, such as utilities bill payments for autodebit transactions and payroll and dividend payments for auto-credit transactions
- **launching renminbi CHATS Optimiser and renminbi Cross Currency CHATS Optimiser** – these liquidity saving devices play a significant role in ensuring the smooth recycling of liquidity during times of heavy fund flows, especially during IPO periods
- launching renminbi-denominated electronic IPO and PPS financial service bulk money settlement runs in the morning and late afternoon – these new bulk settlement runs can facilitate individual investors' electronic IPO subscriptions to renminbi-denominated stocks and electronic bill payments of renminbi-denominated financial services, such as insurance, through the PPS channel. In future, it can be further extended to cover other renminbi-denominated purchases made through the point-of-sale terminals of EPS Company (Hong Kong) Limited.

# Hong Kong/Shenzhen cross-border one-way joint direct debit transfer

The third and last phase of establishing a cross-border one-way joint direct debit transfer arrangement between Hong Kong and Shenzhen was completed in March. The arrangement helps provide a more efficient means for Hong Kong residents to make recurring payments (such as property management fees and utilities bills) to Shenzhen merchants. The first and second phase of the project, launched in 2010, allow holders of Hong Kong dollar and renminbi China UnionPay (CUP) credit cards and Hong Kong dollar CUP debit cards issued in Hong Kong to make relevant cross-border payments. The third phase which resorts to the newly launched renminbi autopay system supports making payments through renminbi CUP debit cards issued in Hong Kong and through directly debiting renminbi bank accounts in Hong Kong.

#### CCASS T+2 money bulk settlement run

To align with international best practices, the project of advancing the money settlement for secondary market trading of listed securities from three days after trade day (T+3) to two days after trade day (T+2) was implemented in July under the close collaboration between the HKMA and Hong Kong Securities Clearing Company Limited. An additional bulk settlement run scheduled for late afternoon (for T+2 settlement), on top of the existing morning one (for T+3 settlement), was introduced to the Hong Kong dollar, US dollar and renminbi RTGS systems for money settlement of secondary market trading of listed securities. New Hong Kong dollar and renminbi CCASS Optimisers were also introduced at the same time to facilitate liquidity management of banks. In addition, the intraday repo windows of the relevant RTGS systems were extended from 6:00 p.m. to 6:30 p.m. to facilitate banks' liquidity management for the new T+2 CCASS bulk settlement runs.

#### Enhanced CMU bank-to-bank repo service

The bank-to-bank repo service of the CMU serves as a platform for CMU members to conduct sales and repurchases of securities pursuant to relevant master sale and repurchase agreements. To facilitate better risk management of bank repo transactions as a collateralised liquidity management tool and reduce reliance on uncollateralised lending, and to address lenders' concern about fluctuation in collateral prices, the enhanced CMU bank-to-bank repo service was launched in November, offering new features such as daily mark-to-market of outstanding repo transactions, user-defined eligible securities for repo transactions and automatic selection of eligible securities as collaterals.

#### Trade repository for OTC derivatives

The HKMA embarked on the development of a trade repository (TR) for OTC derivatives under the CMU in 2011. The TR of the HKMA will serve dual functions of capturing reports of OTC derivatives, initially interest rate swaps and non-deliverable foreign exchange forwards, submitted by the industry and supporting central clearing of eligible derivatives transactions at the central counterparty facility to be established by the Hong Kong Exchanges and Clearing Limited.

Due regard has been paid to evolving international TR reporting standards and local regulatory standards, and industry comments in setting and refining the design features of the TR system. The HKMA has participated in a number of international TR standard-setting bodies to keep abreast of relevant international developments. On-going dialogue has been maintained with the industry on the development and implementation of the TR system through a dedicated working group under the TMA. In July the HKMA issued a consultation paper on the logistical and technical arrangements for reporting to the TR of the HKMA, and published the report on the consultation in November. To allow sufficient time for the industry to get their systems ready, the HKMA finalised and published the technical specifications for TR reporting in December.

#### **Retail payment initiatives**

The HKMA worked with Octopus Card Limited (OCL) to facilitate cross-border development of e-money between Hong Kong and Guangdong Province during 2011. With the facilitation of the HKMA, OCL and GDPass Payment Network Company Limited signed a Heads of Agreement on the issuance of an Octopus and Lingnan Tong two-inone card at the 14th Plenary of the Hong Kong/Guangdong Co-operation Joint Conference in August. Scheduled for launch in 2012, the Octopus and Lingnan Tong two-in-one card would cover public transport as well as certain retail purchases in Hong Kong, Guangzhou, Foshan, Jiangmen, Zhaoqing, Shanwei and Huizhou. The HKMA also facilitated similar discussions between OCL and Shenzhen Tong Company Limited with a view to expanding the coverage of the two-in-one card initiative.

In light of rapidly advancing technologies and growing demand for innovative retail payment services, the HKMA conducted a review of retail payment instruments and infrastructure in Hong Kong and overseas in 2011. The review concluded that it was in the interest of the banking industry, their customers and the general public in Hong Kong to move from paper-based payment solutions to higher adoption of electronic means and a number of initiatives were recommended to take the matter forward. The findings and recommendations of the review were generally supported by the banking industry. A working group comprising representatives of the HKMA and banking industry was formed in late 2011 to further study the initiatives and the approach to implementation. In addition, the HKMA also conducted the preparatory work in late 2011 for a consultancy study on the strategic plan and the approach of developing an interoperable near field communication (NFC)<sup>6</sup> mobile payment infrastructure in Hong Kong. The study would benchmark Hong Kong with other developed markets and involve a number of stakeholders, including the banking sector, mobile network operators, payment service providers and mobile phone manufacturers. The results of the consultancy study would be used to facilitate the development of interoperable NFC mobile payment services in Hong Kong.

<sup>&</sup>lt;sup>6</sup> NFC technology enables consumers to install, among others, mobile payment applications such as e-purses onto their mobile phones and make contactless payments at retail outlets by tapping their mobile phones to the readers installed at retail outlets.

#### PLANS FOR 2012 AND BEYOND

The HKMA will work closely with other agencies and the private sector to consider and implement initiatives that will reinforce the competitiveness of Hong Kong's financial markets to strengthen its position as an international financial centre.

#### International and regional co-operation

The global economic outlook is expected to deteriorate in 2012 amid the slowdown in advanced economies and the on-going European sovereign debt crisis. Global financial markets are likely to remain turbulent along with heightened risk aversion. Volatile capital flows triggered by external or domestic events could pose considerable risks to the financial system of regional economies. This highlights the importance of enhancing co-operation for improving surveillance and contingency planning. The HKMA will continue to spearhead the macrosurveillance work for the EMEAP Monetary and Financial Stability Committee. Participation in central banking and international financial forums remains a priority of the HKMA to keep abreast of the latest developments. The HKMA will also continue to participate in international efforts in implementing the global financial regulatory reforms.

#### Hong Kong's sovereign credit ratings

With Standard & Poor's affirming Hong Kong's AAA credit rating, the HKMA will pursue further upgrades of ratings by other major international credit rating agencies.

# Development of Hong Kong as the premier offshore renminbi business centre

Strengthening financial co-operation with the Mainland is important to enhancing Hong Kong's competitiveness as an international financial centre. The HKMA will liaise with Mainland authorities on issues related to the continued development of Hong Kong as a premier offshore renminbi business centre, and to expand CEPA to increase the financial integration between Hong Kong and the Mainland. To help promote the wider use of renminbi outside the Mainland and to extend the outreach of Hong Kong's offshore renminbi services to the international community, the HKMA is planning further roadshows to introduce the renminbi business platform provided by Hong Kong to overseas investors, companies and financial institutions in 2012.

In collaboration with the Clearing Bank of the renminbi RTGS system, preparations are being made to extend the operating hours of the renminbi RTGS system from the current 10 hours a day to 15 hours, under an operating window from 8:30 a.m. to 11:30 p.m., by June 2012. The extended operating window will be able to cover both the Asian and European business hours and the early US business hours, thus enabling participating banks to better serve their customers in different regions. The extension will bolster the competitiveness of the renminbi clearing platform in Hong Kong and continue to strengthen Hong Kong's status as the premier offshore renminbi business centre.

#### Market development

The HKMA will continue to participate in the Government's initiatives in further developing the local debt market and the Islamic finance sector, and in implementing the Government Bond Programme to broaden its investor base and establish a liquid and representative yield curve. It will also maintain a close, on-going dialogue with the private sector and industry associations to broaden the range and sophistication of market products and services.

With a view to further developing Hong Kong as an international asset management centre as set out in the 12th Five-Year Plan of the Central Government, the HKMA will continue its efforts to refine the financial platform of Hong Kong.

#### **OTC derivatives market regulation**

The HKMA will continue to work with the FSTB and the SFC towards finalising the regulatory regime for the OTC derivatives market in Hong Kong. A second joint consultation with the SFC will be conducted in 2012 to consult the public on the detailed requirements. The HKMA will maintain close contact with the industry to gather market views and design a regime that is in step with market practices. The HKMA will also continue to take part in various international forums, including the OTC Derivatives Working Group of the FSB and the OTC Derivatives Regulators' Forum to keep abreast of and contribute to regulatory developments in the international arena.

#### **Financial infrastructure**

#### Trade Repository for OTC derivatives

Subject to new developments on the international and local regulatory fronts that may warrant making a significant change to the design of the Trade Repository (TR) immediately, the TR system development work is expected to be completed in the first half of 2012. The TR system is expected to be ready for launch in the second half of 2012, subject to the progress on the development of the regulatory regime and the implementation of the central counterparty facility by the Hong Kong Exchanges and Clearing Limited. User registration and industry-wide system testing will be conducted well before mandatory reporting requirements start to take effect to ensure readiness of the industry. Meanwhile, the HKMA will start planning the second phase of system implementation, in anticipation of bringing on board new products and adding new functions in response to evolving international standards and requirements of local regulators.

#### Pan-Asian CSD Alliance project

Following the launch of the Pilot Platform for crossborder investment and settlement of debt securities on 30 March 2012, the HKMA will continue to work with central banks and Central Securities Depositories in the Asia Pacific region and Euroclear to introduce the add-on services such as cross-border collateral management and corporate action services to facilitate gradual migration to the Common Platform Model.

#### Retail payment initiatives

The HKMA will continue to facilitate discussions and implementation of the two-in-one card initiatives among the Octopus Card Limited, GDPass Payment Network Company and Shenzhen Tong Company Limited. The HKMA will also work closely with the banking industry and other service providers to implement the recommendations arising from the retail payment review conducted in 2011, and further enhance the local electronic retail payment infrastructure taking into account findings of the consultancy study on NFC mobile payment services scheduled for completion within 2012. In light of increased innovation in and acceptance of the retail payment services, the HKMA will review the need for an enhanced regulatory framework of retail payment services to ensure the safety and soundness of retail payment instruments and services in Hong Kong.