The global economy showed signs of stabilisation towards the end of 2012, but the recovery remained fragile and uneven. To help promote stability and resilience of the global financial system, the HKMA participated proactively in international and regional forums to discuss ways to strengthen market surveillance and co-ordinate implementation of the global financial regulatory reforms. Renminbi business continued to expand, strengthening Hong Kong's position as the premier offshore renminbi business centre. Hong Kong's strong credit standing and robust fiscal performance was reaffirmed by credit rating agencies — Standard & Poor's maintained its AAA rating and Moody's remained positive to the credit outlook for Hong Kong.

OVERVIEW

The global economy and financial markets experienced a volatile session in the first half of 2012 as heightened concerns regarding the European sovereign debt crisis and deterioration in growth prospects weighed heavily on market sentiment. Following a series of accommodative measures introduced by policymakers around the world, some signs of stabilisation emerged near the end of the year. Nevertheless, the outlook remains highly uncertain. In Asia, while many economies demonstrated resilience during this period, trade and financial sectors were affected. Closer international and regional co-operation is needed to promote greater financial stability and to achieve a more robust global economic recovery.

The HKMA proactively participates in international discussions and exchanges views with the international community on issues of significance to global and regional financial stability. In 2012, it assumed chairmanship of the Monetary and Financial Stability Committee established under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP).¹ The Committee is EMEAP's main platform for reviewing economic and financial developments in the Asia-Pacific region, identifying areas of vulnerability and policy options. The HKMA also took part in meetings and forums of multilateral organisations, notably the Financial Stability Board (FSB)², which plays the leading role in the reform of the international financial system. In addition, the HKMA continued to work closely with ASEAN+3³ authorities on implementation work relating to enhancing the Chiang Mai Initiative

Multilateralisation (CMIM), including the doubling of its access fund⁴ and strengthening the operations of the ASEAN+3 Macroeconomic Research Office – an independent regional surveillance unit to monitor and analyse regional economies and support CMIM decision making.

The development of Hong Kong as the premier offshore renminbi business centre progressed significantly in 2012, with notable growth in renminbi trade settlement, financing and wealth management activities, and its expanding links with the Mainland and internationally. These developments have entrenched Hong Kong's role as a global hub for a wide range of offshore renminbi financial activities.

In addition, on 25 June the operating hours of the renminbi Real Time Gross Settlement (RTGS) system was extended to 15 hours, serving from 8:30 a.m. to 11:30 p.m. This gives financial institutions in other parts of the world, particularly those in the European time zone and early North American business hours an extended window to settle offshore renminbi payments through the Hong Kong infrastructure. Indeed, the safe and efficient operation and the continued development of the financial infrastructure in Hong Kong plays a significant role in reinforcing its competitive edge as an international financial centre. During the year, the different components of the financial infrastructure operated smoothly. In other developments, the first phase of the local over-the-counter (OTC) derivatives trade repository for supporting voluntary central clearing of OTC derivatives transactions was launched in December.

¹ 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.

² The FSB was established in April 2009 as the successor to the Financial Stability Forum to address vulnerabilities in global financial systems, and to develop and promote 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.

³ 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.

⁴ 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. In May 2012, enhancements to the CMIM included a doubling of its access fund to US\$240 billion and the introduction of a crisis prevention facility.

REVIEW OF 2012

International and regional co-operation

To advance international and regional co-operation in economic and financial surveillance, as well as enhance policy co-ordination, the HKMA participated proactively in important discussions under the auspices of the FSB, the Bank for International Settlements (BIS), and the Asia-Pacific Economic Co-operation on issues of common interest including bolstering financial resilience and promoting sustainable economic growth. Through its participation in the FSB and various international standard-setting bodies, the HKMA also continued to advocate the implementation of global financial regulatory reforms, in particular the recommendations of the Group of Twenty (G20). Further information on the HKMA's role in international regulatory co-operation can be found in the Chapter on Banking Stability.

The HKMA hosted two high-level international meetings in Hong Kong in 2012. In February, an informal meeting of central bank governors and a back-to-back meeting with CEOs of key financial institutions was co-hosted with the BIS. Governors and senior officials from 22 central banks and 18 CEOs of financial institutions around the world attended the meetings. They provided an opportunity for the central bank governors to review the global economic and financial developments, with a specific focus on Asia, and to exchange views with the private sector. The HKMA also hosted the FSB Plenary Meeting in May, which was attended by some 70 heads and senior representatives of central banks, supervisory authorities, finance ministries, international financial institutions and standard-setting bodies. The delegates discussed the risks facing the world economy, and reviewed progress on global financial regulatory reforms.

Representing the Government of the Hong Kong Special Administrative Region, the HKMA took part in negotiations on the tenth replenishment of the Asian Development Fund, a concessional financing facility of the Asian Development Bank for the region's poorest economies. Funding approval will be sought from the Finance Committee of the Legislative Council (LegCo) for Hong Kong's contribution to the replenishment in early 2013.

Promoting monetary and financial stability in Asia

The HKMA participated proactively in regional co-operative initiatives to promote monetary and financial stability in Asia and to improve the region's collective voice in international financial affairs. In 2012, as Chair of the EMEAP Monetary and Financial Stability Committee, the HKMA led the Committee's discussion on issues of common interest, particularly the implications of the global financial regulatory reforms for the region, and facilitated the formation of a collective voice for EMEAP members to contribute to the international discussions. The HKMA also continued to conduct analyses and prepare the Committee's half-yearly Macro-Monitoring Report to assess the region's risks and vulnerabilities and policy implications.

The HKMA continued to work closely with ASEAN+3 authorities on enhancements to the CMIM. The organisational capacity of the ASEAN+3 Macroeconomic Research Office was also strengthened to improve its ability to monitor the macroeconomic and financial soundness of regional economies and to facilitate effective decision-making of CMIM participants under the enhanced CMIM.

The HKMA's role as a deputy chair of the EMEAP Working Group on Payment and Settlement Systems continued for another term after the completion of its two-year term. It has been working closely with the People's Bank of China (PBoC) and Bangko Sentral ng Pilipinas (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 crossborder payment and settlement systems. The HKMA is also taking the lead role in the sub-group on cross-border co-operation and development.

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

Hong Kong's sovereign credit ratings

The HKMA continued its dialogue with 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 2012. In particular, Standard & Poor's affirmed its highest rating of AAA for Hong Kong, reflecting the agency's recognition of Hong Kong's above-average growth prospects, strong external position, sizable fiscal reserves, and consistently robust fiscal performance. Moody's Investors Service and Fitch Ratings also 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 breadth and depth of the offshore renminbi market in Hong Kong and its links with the Mainland and other parts of the world expanded considerably in 2012. Adding to this was the announcement by the Central Government in June of a series of additional measures to bolster Hong Kong as the offshore renminbi business centre, including further issuance of renminbi bonds in Hong Kong by the Ministry of Finance and by Mainland banks and enterprises; support for the use of the Hong Kong platform by parties from other places to settle trade and investment transactions in renminbi; and relaxation of the investment quotas, the range of participating entities and the investment restrictions of the Renminbi Qualified Foreign Institutional Investors (RQFII) scheme. These measures help consolidate Hong Kong's status as a global centre for offshore renminbi trade settlement, financing and asset management.

In another development, a set of provisional administrative rules for renminbi cross-border bank lending for Qianhai was released in December by the Shenzhen authorities, which enabled companies incorporated in Qianhai to borrow renminbi loans from banks in Hong Kong for uses relating to the development of Qianhai. This arrangement provides more business opportunities for the development of renminbi banking services in Hong Kong. Renminbi trade settlement handled by banks in Hong Kong in 2012 amounted to RMB2,632.5 billion, a year-on-year increase of 37%. Together with the overall expansion of the scale and scope of renminbi banking activities, Hong Kong banks in August started to provide renminbi services to personal customers who are non-Hong Kong residents. At the end of 2012, some 29,000 accounts were opened by non-resident personal customers, with deposits exceeding RMB4 billion.

Renminbi financing activities were also vibrant. At the end of the year, the outstanding renminbi bonds issued in Hong Kong was RMB237.2 billion, up 60% from a year ago. Renminbi lending by banks in Hong Kong also expanded, with outstanding renminbi loans amounting to RMB79.0 billion, more than double the amount in 2011. At the same time, the range of renminbi financial instruments and products grew to include renminbi shares, currency futures and exchange-traded funds accessing the A-share market. All these activities were supported by a sustained pool of liquidity, with renminbi customer deposits and outstanding certificates of deposit issued by banks totalling RMB720.2 billion at the end of 2012, an increase of 9% from a year earlier.

As a global hub for offshore renminbi business, Hong Kong is playing an increasingly important role in supporting international corporations and financial institutions in conducting offshore renminbi business. At the end of 2012, 204 banks were participating in Hong Kong's renminbi clearing platform, of which 181 were subsidiaries and branches of overseas banks and the overseas presence of Mainland banks. Some 1,400 correspondent banking accounts were maintained by overseas banks with banks in Hong Kong, compared with 900 a year ago. The average daily turnover of Hong Kong's renminbi RTGS system reached RMB264 billion in December 2012 with 90% of the transactions conducted in the offshore renminbi market. To support the continued deepening of the renminbi capital market in Hong Kong and to reinforce Hong Kong's role as the global hub for offshore renminbi business, the HKMA introduced a facility in June to provide renminbi liquidity to authorized institutions participating in renminbi business in Hong Kong.

As part of its efforts to promote the international use of Hong Kong's renminbi platform, the HKMA organised various seminars and meetings in Hong Kong, and conducted roadshows in Brazil, Chile and Japan. In January 2012, the UK Chancellor of the Exchequer, Rt. Hon. George Osborne, and the Chief Executive of the HKMA, Mr Norman Chan, announced the establishment of a private sector-led Hong Kong-London Forum to promote closer collaboration between the two cities to support the wider international use of renminbi. The Forum convened two meetings during the year, which resulted in the participating banks achieving notable progress in enhancing market liquidity, payment and settlement arrangements and products and services. Meanwhile, a renminbi Trade and Investment Dialogue between Hong Kong and Australia was launched in July, and its first meeting will be held in Sydney in 2013.



Chief Executive of the HKMA, Mr Norman Chan (third from right) in a panel discussion at the "Hong Kong: Offshore Renminbi Centre for Global Businesses" seminar in Tokyo.



Chief Executive of the HKMA, Mr Norman Chan, addresses a seminar in Sao Paulo, Brazil, to promote Hong Kong as the offshore renminbi business centre.

CEPA

The Ninth Supplement to the Closer Economic Partnership Arrangement (CEPA) was signed in June. There are two new measures for the banking sector – the first allows eligible Mainland subsidiaries of Hong Kong banks to offer custodian services regarding settlement funds of customers of securities companies and margin deposits on futures transactions; the second allows Hong Kong financial institutions to set up consumer finance companies in Guangdong Province on a pilot basis.

Training

Training programmes are conducted in Hong Kong and the Mainland for officials of the PBoC, the State Administration of Foreign Exchange and the China Banking Regulatory Commission (CBRC). During the year, 933 officials from the Mainland attended 13 courses (2,276 man-days) covering the credit information system; financial market development and supervision; internal control and supervision; macroeconomics and financial analysis; corporate governance and external relations of the HKMA; financial markets and services; and banking supervision. The HKMA also provided training on request to other external parties, including delegations from branch offices of the CBRC, the Korea Financial Supervisory Service and a local university. A total of 123 participants attended these seminars in 2012.

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 \$16 billion, with tenors ranging from two to 10 years, were completed in 2012. The amount of institutional bonds outstanding at the end of the year was \$47 billion. The HKMA will maintain close contact with market participants and consider relevant measures to refine the institutional part.

For the retail part, a further issuance of the \$10 billion inflation-linked retail bond (i.e. the second iBond) was announced in the Government's 2012-13 Budget. The issuance was arranged by the HKMA with assistance from relevant service providers. The second iBond was offered to Hong Kong residents in June and attracted over 330,000 applications, with application monies approaching \$50 billion. Both the number and amount of valid applications set records in the local retail bond market. The \$10 billion iBond was issued on 22 June.

Development of Islamic finance

The HKMA assisted the Government in the preparation of a legislative proposal to amend Hong Kong's tax laws to provide a tax regime for common types of Islamic bonds (sukuk) that is comparable with the one applying to conventional bonds. In particular, the HKMA helped conduct a two-month public consultation beginning in March. The purpose of the consultation was to ensure the legislative proposal, especially the parts concerning the features and structures of sukuk and the proposed tax treatment, would be practicable and meet market needs. The responses received from a broad range of interested stakeholders were largely receptive to the proposal. Many useful suggestions and comments were taken into account in finalising the amendment bill. The relevant consultation conclusions were issued in October.

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, continues to explore ways to improve the international competitiveness of Hong Kong's financial markets and provide a more favourable tax and regulatory environment for such businesses. The HKMA took part in joint promotional roadshows to New York, Geneva, Lugano and Zurich to highlight the strength of Hong Kong's financial platform, focusing on its advantages as an offshore renminbi centre and premier asset management hub.

The HKMA also visited asset managers in major financial centres through small groups and one-on-one meetings to highlight the latest developments in Hong Kong and listen to their business plans for Asia. In seeking their views on potential hurdles for their operations in Hong Kong, the HKMA can help improve Hong Kong's financial platform. These outreach meetings were held with private banking institutions, pension funds, mutual funds, private equity firms, hedge funds and fund administrators in Abu Dhabi, Beijing, Dubai, Dublin, Geneva, Frankfurt, Korea, London, Lugano, Montreal, New York, Paris, San Francisco, Shenzhen, Singapore, Toronto 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, aimed at reducing systemic risk and enhancing transparency in the OTC derivatives market.

Following public consultation on the proposed regulatory regime for the OTC derivatives market in October 2011, the HKMA and the SFC jointly published in July 2012 the consultation conclusions in response to the comments received. At the same time a supplemental consultation paper was issued on the proposed scope of the new and expanded regulated activities and the oversight of systemically important players. Taking into account the responses from the two consultations, the HKMA and the SFC have been working on the legislation needed to provide for the regulatory framework for Hong Kong.

The HKMA continued to engage the industry through a number of channels, including the OTC Derivatives Market Working Group under the Treasury Markets Association (TMA) and its sub-groups, which address specific regulatory and infrastructural issues. The HKMA also participated in international forums, including the OTC Derivatives Working Group, established under the FSB, the OTC Derivatives Regulators' Forum, and Basel Committee and the International Organization of Securities Commissions (IOSCO) joint Working Group on Margining Requirements, contributing to the relevant international initiatives and monitoring closely the international regulatory developments.

Cross-border co-ordination on OTC derivatives market reform

In early July, the US Commodity Futures Trading Commission (CFTC) issued proposed interpretive guidance on the cross-border application of certain provisions of the Commodity Exchange Act relating to swaps. In certain circumstances this requires non-US persons engaged in swap dealing with US persons to register with the CFTC and meet specified entity-level and transactionlevel requirements. The HKMA and the SFC wrote jointly with other regional regulators (the Australian Securities and Investments Commission, Reserve Bank of Australia and Monetary Authority of Singapore) to the CFTC raising concerns about the extra-territorial implications of the proposed guidance for non-US financial institutions and non-US financial markets. The issues are being followed up through both bilateral and multilateral discussions between the CFTC and other regulators, including Hong Kong.

Treasury Markets Association

The HKMA continued to work in collaboration with the TMA to develop Hong Kong's treasury markets, 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.

At the end of 2012, the Association had 1,690 Individual Members and 80 Institutional Members from banks, investment houses, insurance companies, money brokers, financial information services providers, exchanges and large corporations. During the year, the TMA accomplished several important tasks:

- conducted a review into HIBOR fixing commissioned by the Hong Kong Association of Banks (HKAB), the TMA reviewed the fixing mechanism and governance arrangements for the Hong Kong dollar Interest Settlement Rates, more commonly known as HIBOR fixing, to identify any room for improvement.
- conducted a study into Hong Kong's business environment for corporate treasury units – the study has identified a few impediments in Hong Kong's tax regime and in cross-border fund flows between Hong Kong and the Mainland for corporate treasury units, and has made a number of recommendations to address them. The findings will be submitted to the relevant authorities for consideration.

- displaying CNY(HK) interbank offered rates on the TMA website – selected banks in Hong Kong started displaying their CNY(HK) interbank offered rates on the TMA website in 2012, in a bid to enhance transparency and assist in the development of renminbi products in Hong Kong before the emergence of a formal CNY(HK) HIBOR fixing in Hong Kong.
- **co-organising the Treasury Markets Summit with the HKMA** – the Summit was held in October with emphasis on the development of Hong Kong as an offshore renminbi centre, trends in Hong Kong's asset management business and ways to maintain professionalism and ethical standards in Hong Kong's treasury markets.

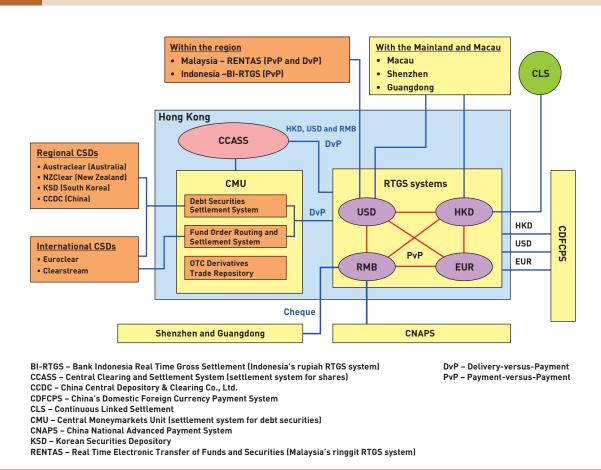
Hong Kong's financial infrastructure

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, continued 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 over the years include the establishment of RTGS systems for the Hong Kong dollar, the US dollar, the euro and the renminbi; and development of bilateral links between the local RTGS systems and overseas RTGS systems, and between the Central Moneymarkets Unit (CMU) and regional and international Central Securities Depositories (CSDs), such as Euroclear, Clearstream, and the depositories in Australia, New Zealand, South Korea and the Mainland.

In response to industry demands and international developments, new components have been added to broaden the scope and increase the depth of the financial infrastructure in Hong Kong. For example, an order routing and settlement system for investment funds was introduced in 2009, a trade repository for OTC derivatives was introduced in 2012 and retail payment infrastructure will be introduced in 2013-14.

Chart 1 Hong Kong's multi-currency payment and settlement infrastructure



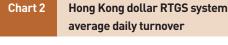
Hong Kong dollar RTGS system

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 real-time 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 HKAB. In 2012, the HKICL processed a daily average of \$496 billion in CHATS transactions (23,010 items), compared with \$539 billion (22,682 items) in 2011.

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 all operated smoothly. The average daily turnover of the renminbi RTGS system continued its brisk growth momentum in 2012 rising to RMB214 billion, after increasing from RMB5 billion in 2010 to RMB121 billion in 2011, amid the rapid expansion of renminbi business in Hong Kong. The momentum accelerated for the year and the daily average reached RMB264 billion in December. The average daily turnovers and other details of the foreign currency RTGS systems are listed in Charts 3 – 5 and Table 1.



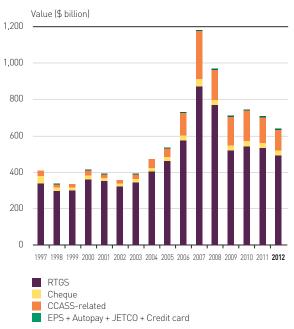
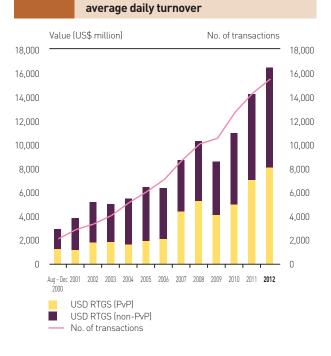


Chart 3 US dollar RTGS system



Euro RTGS system

Chart 4

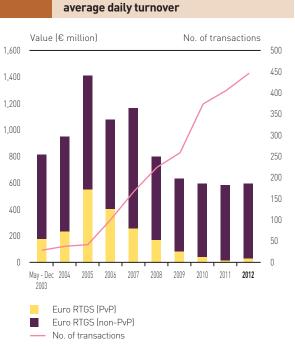




Chart 5 Renminbi RTGS system average daily turnover

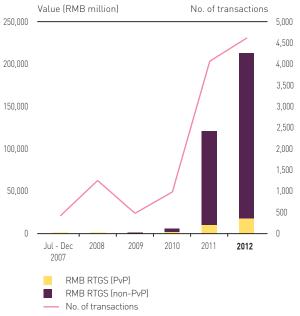


Table 1 Foreign currency RTGS systems

RTGS system	Launch date	Settlement institution or Clearing Bank	Number of participants at the end of 2012	Average daily turnover in 2012	Average daily transactions in 2012
US dollar	August 2000	The Hongkong and	Direct: 92	US\$16.4 billion	15,404
		Shanghai Banking	Indirect: 130		
		Corporation Limited			
Euro	April 2003	Standard Chartered Bank	Direct: 33	€581.8 million	432
		(Hong Kong) Limited	Indirect: 19		
Renminbi	June 2007	Bank of China	Direct: 174*	RMB213.7 billion	4,600
		(Hong Kong) Limited			

* Refers to those that have completed the registration of direct membership for the renminbi RTGS system among over 200 participating banks that have signed the Clearing Agreement with the Clearing Bank.

Payment-versus-payment

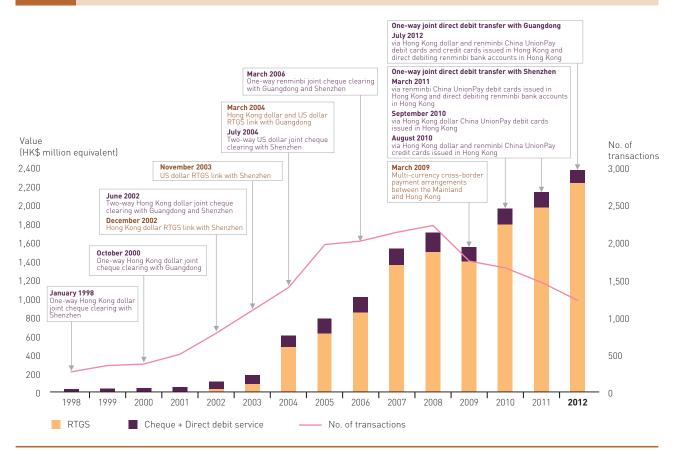
Payment-versus-payment (PvP) is a mechanism for settling a foreign exchange transaction to ensure that payments in the two currencies involved are settled simultaneously. Within Hong Kong, six cross-currency PvP links have been established among the Hong Kong dollar, US dollar, euro and renminbi RTGS systems. Hong Kong's US dollar RTGS system has also established two cross-border 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 2012, the transaction value of Hong Kong dollar, US dollar, euro and renminbi-related PvP transactions amounted to about HK\$4,283 billion, US\$1,992 billion, €8 billion and RMB3,996 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 2012, the average daily turnover handled by the various system links was equivalent to \$2.4 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 23,500 transactions during the year, with a total value equivalent to \$523 billion. The system allows cross-border payments in Hong Kong dollars and US dollars to be settled efficiently and safely between banks in Hong Kong and their counterparts in Shenzhen and Guangdong.

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



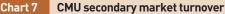
The two-way joint cheque-clearing facilities processed about 262,000 Hong Kong dollar and US dollar cheques in 2012, with a value equivalent to \$31 billion. The facilities shortened the clearing time for cheques drawn on banks in Hong Kong and presented in Shenzhen and Guangdong, and for cheques drawn 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 2012, renminbi cheques with a total value equivalent to around \$35 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 2012, Hong Kong dollar cheques with a total value of about \$29 billion and US dollar cheques with a total value of about US\$26 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, investors outside Hong Kong can hold and settle securities lodged with the CMU. These linkages also assist Hong Kong investors to hold and settle foreign securities held with CSDs outside Hong Kong. In 2012, the CMU processed an average daily value of \$26 billion (359 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 \$657 billion and the total amount of other debt securities was equivalent to \$885 billion, of which renminbi debt securities amounted to RMB314 billion.



Value (\$ billion) No. of transactions 600 600 550 550 500 500 450 450 400 400 350 350 300 300 250 250 200 200 150 150 100 100 50 50 0 0 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 **2012** Average daily turnover in value Average daily turnover in volume

Financial infrastructure development

The HKMA completed a number of projects in 2012 to improve the safety and efficiency of Hong Kong's financial infrastructure, and to capture new business opportunities.

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

This cross-border joint direct debit transfer service was modelled on a similar service between Hong Kong and Shenzhen through the use of Hong Kong dollar and renminbi China UnionPay credit cards and debit cards issued in Hong Kong to make payments, or directly debiting renminbi accounts in Hong Kong. This service, which was launched on 16 July, provides Hong Kong residents with a more convenient payment channel for making regular and recurring cross-border small-value payments to merchants in Guangdong Province, such as payments of property management fees and utilities bills.

Introduction of multiple same day auto-credit settlement in the Hong Kong dollar and renminbi RTGS systems

The existing auto-credit clearing and settlement model was upgraded to enable three bulk settlement runs a day for auto-credit items in the Hong Kong dollar and renminbi RTGS systems. The improved service started on 17 September, as compared with the previous two bulk settlement runs in the Hong Kong dollar RTGS system and one in the renminbi RTGS system.

The change helps shorten the clearing and settlement cycle and enhance the settlement efficiency at the interbank level. Customers can also benefit if money received from these multiple runs can be credited to their accounts shortly after the runs. In response to industry demands to provide an even better auto-credit service to their customers, a refinement was introduced on 29 October, whereby the morning settlement run was advanced by over an hour to 8:45 a.m., thus facilitating banks to credit money to their customer's account very early in the day.

Cross-border collateral management service

The HKMA co-operated with Euroclear Bank and J.P. Morgan to start offering a cross-border collateral management service from 25 June. The new facility, the first add-on service following the March launch of the pilot platform for cross-border investment and settlement of debt securities, enables members of the HKMA's CMU to conduct triparty repo transactions with international financial institutions. It aims at developing and promoting a cost effective and efficient repo market in Hong Kong, thereby helping improve financial stability through the greater use of collateral to cover exposures in lending and borrowing. The service also opens an efficient channel for financial institutions to widen their liquidity sources and obtain offshore renminbi liquidity from Hong Kong.

CMU Central Bank Placement Co-ordinating Window

The HKMA's tendering platform service for the issuance of offshore renminbi sovereign bonds entered a new phase in June with the establishment of the CMU Central Bank Placement Co-ordinating Window. The new window further promotes the development of Hong Kong's renminbi bond market by expanding the investor base to include central banks and monetary authorities.

On 28 June, the Ministry of Finance became the first government authority to use the CMU Central Bank Placement Co-ordinating Window for an RMB2 billion placement. It attracted a total subscription of RMB3.06 billion from overseas central banks and monetary authorities. In addition, RMB15.5 billion in offshore renminbi sovereign bonds was issued to institutional investors through the HKMA's bond tendering platform of the CMU, and RMB5.5 billion was issued to retail investors.

The Co-ordinating Window, which can be developed to serve more overseas central banks or sovereign institutions, will help consolidate the role of Hong Kong as the global hub for offshore renminbi business.

Trade repository for OTC derivatives

The development of the local trade repository for OTC derivatives has been progressing on schedule. In December, the transaction matching and confirmation function of the trade repository was launched to support voluntary central clearing of OTC derivatives transactions at the central counterparty clearing facility of the Hong Kong Exchanges and Clearing Limited. Intensive preparations were also made for launching the trade repository's transaction reporting function. After taking into account evolving local and international regulatory and reporting standards, and industry comments, the HKMA refined and re-issued in December the technical specifications for the transaction reporting function and the relevant service reference manual. Industry-wide briefings were also held to assist industry participants to have their systems ready for the implementation of the mandatory reporting requirement under the regulatory regime targeted for 2013.

Retail payment initiatives

Throughout the year, the HKMA continued its effort to further improve Hong Kong's retail payment infrastructure. The initiatives and their progress are summarised below.

Launch of two-in-one cards

The two-in-one card initiatives between Octopus Cards Limited (OCL) and Guangdong Lingnan Pass Company Limited (LNP) and between OCL and Shenzhentong Company Limited (SZT) were successfully launched in July and September respectively. The OCL/LNP co-brand card can be used for public transport and certain retail outlets in Hong Kong as well as 17 cities in Guangdong Province, while the OCL/SZT co-brand card covers public transport and certain retail outlets in Hong Kong and Shenzhen. Both initiatives have the full support of the HKMA and other authorities in Mainland China.

Implementation of electronic bill presentment and payment system

Scheduled for launch in the second half of 2013, the electronic bill presentment and payment (e-bill) system will provide a consolidated platform for the straightthrough processing of electronic bill presentments and payments. It is a multi-currency multi-functional platform that supports Hong Kong dollar, renminbi and US dollar bill payments and handles a range of transactions including:

- business-to-customer (B-2-C) e-billing and e-payment;
- business-to-business (B-2-B) e-billing and e-payment;
- (iii) cross-border e-billing and e-payment; and
- (iv) online charity payments and presentment of electronic donation receipts.

At the end of December 2012, more than 20 banks, which cover nearly all retail banks providing Internet banking services in Hong Kong, have confirmed to join the platform. Major billers including the Hong Kong Government and certain utility companies have already indicated interest in using the services through the participating banks.

Development of e-cheques

The HKMA has worked with the industry to develop an operating model of an e-cheque that can be signed, issued, delivered and presented through electronic means. Initial industry consultation on the proposed operating model has so far been supportive as e-cheques will help reduce resources for processing, save the need for physical delivery and presentment at bank branches, enhance the efficiency of cheque processing and provide better security features. The HKMA aims to commence system development in early 2013 and, subject to the results of industry-wide testing, expects the service to be available to the market near the end of 2014 or the beginning of 2015.

Near Field Communication⁵ mobile payment

In view of the growing acceptance of mobile payment services and the availability of NFC-enabled mobile phones both locally and globally, the HKMA appointed a consultancy firm in July to conduct a study and recommend a strategy for developing an interoperable NFC mobile payment infrastructure in Hong Kong. The study covered the worldwide NFC deployment trends, collected feedback from local stakeholders and recommended options for implementing such a platform in Hong Kong. The infrastructure needs to achieve three main objectives: the NFC mobile payment services should not depend on a particular brand of mobile phone; customers can download all available payment services onto one mobile phone; and, customers are able to continue using the mobile payment services despite changing from one mobile network operator to another. The HKMA aims to complete the consultancy study in the first quarter of 2013.

New regulatory regime for Stored Value Facilities and Retail Payment Systems

Technological advancements and increasing acceptance of new technologies by the public have led to the emergence of innovative retail payment products and services globally. While Hong Kong's current regulatory framework for multipurpose stored value cards under the Banking Ordinance has so far been effective, it may not be wide enough to cover emerging and innovative retail payment products and services. As well, the failure of unregulated products and services may adversely affect public confidence in payment systems which, in turn, may undermine the stability and effective working of the financial system in Hong Kong. Against this backdrop, the HKMA began preparatory work on legislative amendments to implement a new regulatory regime for stored value facilities and retail payment systems in Hong Kong. The goals are to protect users from possible services failure and to ensure the safety and soundness of the operation of such services; to foster competition and innovation in the market; and to further enhance Hong Kong's status as an international financial centre. Initial consultation with major industry participants on the regulatory proposals was completed during the year, followed by the release of a formal industry consultation paper at the end of the year to solicit comments on the proposed framework. These will be used in the development of the legislative amendments.

Pan-Asian CSD Alliance project

The HKMA, Bank Negara Malaysia and Euroclear Bank jointly launched a pilot platform for cross-border investment and settlement of debt securities in March. The platform offers a wide range of services, including a global securities database, provision of a single point of entry for investors to buy and hold international and domestic bonds through their accounts of the local system, and cross-border issuance and settlement of bonds in foreign currencies on a delivery-versus-payment (DvP) basis.

⁵ Near Field Communication (NFC) is a short-range wireless connectivity technology that provides intuitive, simple, and safe communication between electronic devices. Communication occurs when two NFC-compatible devices are brought within four centimetres of one another.

PLANS FOR 2013 AND BEYOND

The HKMA will continue to co-operate with other agencies and the private sector locally and internationally to implement initiatives that improve Hong Kong's competitiveness as an international financial centre.

International and regional co-operation

Despite recent improvements in market sentiment, the outlook for the global economy in 2013 remains highly uncertain, as a number of advanced economies continue to deal with debt problems. Cross-border capital flows are likely to remain volatile in an environment of excessive global liquidity and constant shifts in market sentiment. Meanwhile, many of the global financial regulatory reforms are now entering the implementation phase and require cross-border co-ordination. All these call for closer international and regional co-operation to improve surveillance and policy co-ordination. The HKMA will continue its proactive participation in various central banking and international financial forums to contribute to the global effort. As the Chair of the EMEAP Monetary and Financial Stability Committee, the HKMA will work closely with other regional central banks to continue to spearhead the macro-surveillance work and promote the region's collective voice in international financial affairs.

Hong Kong's sovereign credit ratings

The HKMA will strive to preserve Standard & Poor's AAA rating for Hong Kong, and pursue further upgrades of ratings by Moody's, Fitch and other major international credit rating agencies.

Development of Hong Kong as the premier offshore renminbi business centre

The continued strengthening of renminbi business links with the Mainland and other parts of the world will be essential for the further development of Hong Kong as the premier offshore renminbi business centre. As such, the HKMA will continue its outreach initiatives to further expand Hong Kong's offshore renminbi services to the international community, and promote collaborations with other places in respect of the development of renminbi business.

The HKMA will also engage the Mainland authorities in promoting two-way flows and efficient intermediation of renminbi funds between the onshore and offshore markets, as well as expanding CEPA and other financial co-operation initiatives.

Market development

The HKMA will continue to participate in developing the local debt market, and in implementing the Government Bond Programme to broaden its investor base and enhance its liquidity. It will maintain close dialogue with the private sector and industry associations to expand the range and sophistication of market products and services.

The development of stock market in Hong Kong will move a step closer with the Government's amendment bill expected to be tabled in LegCo in early 2013. The HKMA will continue to work with the FSTB and other relevant parties to take forward this initiative. And, it will continue to work with other agencies to explore ways to further enhance the competitiveness of Hong Kong's financial sector, particularly in the promotion of Hong Kong as an international asset management hub. The HKMA will also continue to reach out to the asset managers in major financial centres, promoting Hong Kong as an offshore renminbi centre and an international asset management hub.

OTC derivatives market regulation

The HKMA will continue to work with the FSTB and the SFC towards developing the regulatory regime for the OTC derivatives market in Hong Kong. It is planned to introduce the relevant Bill into LegCo in the first half of 2013. The HKMA and the SFC also plan to conduct a public consultation on the detailed rules under this regime shortly after the Bill is introduced into LegCo.

After the regulatory framework is introduced, the HKMA will issue supervisory guidance outlining the key requirements and its approach to supervising AIs' OTC derivatives activities.

The HKMA will also continue its participation 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

Development of Hong Kong as a payment hub for renminbi to reinforce its status as the premier offshore renminbi business centre

The HKMA is taking a proactive approach in strengthening Hong Kong's renminbi related financial infrastructure to take advantage of the expanding offshore renminbi business opportunities. The extension of the operating hours of the renminbi RTGS system in 2012 has been well received by the banking sector, with an increasing volume and greater variety of payments executed in the evening hours.

Money settlement for investment funds

Following the launch of the CMU Fund Order Routing and Settlement Service in August 2009, which primarily deals with the routing of investment fund orders, the CMU will enhance the platform in 2013 to facilitate the money settlement of investment fund orders.

Trade repository for OTC derivatives

The transaction reporting function of the trade repository for supporting mandatory reporting under the regulatory regime in Hong Kong is scheduled for launch by mid-2013, just prior to the target implementation date of the regulatory regime itself. Development of the trade repository system's next phase will commence in 2013, with the focus on including the remaining most commonly traded products in the local market and those requested to be added by regulatory authorities. It is scheduled for completion by mid-2014.

Retail payment initiatives

The HKMA will continue with the implementation of the e-bill system and e-cheques as planned and conduct a series of promotional events to arouse public awareness and interest in these initiatives. In addition, it will consult the mobile payment industry on the recommendations set out in the NFC mobile payment consultancy report with a view to implementing an effective and interoperable infrastructure for Hong Kong.

New regulatory regime for stored value facilities and retail payment systems in Hong Kong

A public consultation on the proposed regulatory regime is planned in the first half of 2013. Responses from the consultation will be incorporated in the drafting of new legislation, which is expected to be introduced into LegCo for consideration in the second half of 2013.

Pan-Asian CSD Alliance project

The HKMA will continue to work with global tripartite repo system operators to allow local financial institutions to use their securities as collateral to obtain foreign currency liquidity from international financial institutions, and develop DvP links between Hong Kong's RTGS systems and the global tripartite repo systems. In addition, the HKMA will begin the development of a centralised corporate action platform to facilitate announcements and processing of corporate action events of debt securities. The centralised platform is expected to be launched in phases starting from the end of 2014.