



HONG KONG MONETARY AUTHORITY  
香港金融管理局

# 2015

Annual Report



# Hong Kong Monetary Authority

The Hong Kong Monetary Authority (HKMA) is the government authority in Hong Kong responsible for maintaining monetary and banking stability.

The HKMA's policy objectives are

- to maintain currency stability within the framework of the Linked Exchange Rate System
- to promote the stability and integrity of the financial system, including the banking system
- to help maintain Hong Kong's status as an international financial centre, including the maintenance and development of Hong Kong's financial infrastructure
- to manage the Exchange Fund.

The HKMA is an integral part of the Hong Kong Special Administrative Region Government but operates with a high degree of autonomy, complemented by a high degree of accountability and transparency. The HKMA is accountable to the people of Hong Kong through the Financial Secretary and through the laws passed by the Legislative Council that set out the Monetary Authority's powers and responsibilities. In his control of the Exchange Fund, the Financial Secretary is advised by the Exchange Fund Advisory Committee.

**The HKMA's offices** are at

55/F, Two International Finance Centre,  
8 Finance Street,  
Central,  
Hong Kong  
Telephone : (852) 2878 8196  
Facsimile : (852) 2878 8197  
E-mail : [hkma@hkma.gov.hk](mailto:hkma@hkma.gov.hk)

**The HKMA Information Centre** is located at 55/F, Two International Finance Centre, 8 Finance Street, Central, Hong Kong and is open from 10:00 a.m. to 6:00 p.m. Monday to Friday and 10:00 a.m. to 1:00 p.m. on Saturday (except public holidays). The Centre consists of an Exhibition Area and a Library containing materials on Hong Kong's monetary, banking and financial affairs and central banking topics.

**The HKMA's bilingual website** ([www.hkma.gov.hk](http://www.hkma.gov.hk)) provides comprehensive information about the HKMA including its main publications and many other materials.





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The chapter on Banking Stability in this Annual Report is the report on the working of the Banking Ordinance and the activities of the office of the Monetary Authority during 2015 submitted by the Monetary Authority to the Financial Secretary in accordance with section 9 of the Banking Ordinance.

The full text of this Report is available on the HKMA website.

# Highlights of 2015

## Economic and Financial Environment

Economic growth in Hong Kong moderates, reflecting weaker domestic demand and subdued export performance. Local stock market sees large swings amid heightened volatility in global financial markets. The residential property market starts to soften after the announcement of the seventh round of prudential measures in February.

The Hong Kong banking sector remains resilient. Locally incorporated authorized institutions (AIs) are well capitalised, and the liquidity positions of AIs continue to be sound. The asset quality of retail banks deteriorates slightly, but stays at healthy levels.

## Monetary Stability

The Hong Kong dollar exchange rate remains broadly stable against the US dollar, with the strong-side Convertibility Undertaking triggered repeatedly in April, September and October. The Hong Kong dollar exchange rate market continues to operate in an orderly manner despite turbulent global financial market conditions, reflecting resilience of the Linked Exchange Rate System to external shocks.

The money market continues to function normally with ample interbank liquidity. Following the decision of the US Federal Reserve to raise the target range for the Federal Funds Rate, the Base Rate in Hong Kong is adjusted upwards by 25 basis points to 0.75% in December.

## Banking Stability

Supervisory efforts on AIs' risk governance, including credit and liquidity risk management systems, anti-money laundering and counter-terrorist financing controls, and selling practices for investment and insurance products, have been stepped up.

The HKMA announces a countercyclical capital buffer for Hong Kong and designates five authorized institutions as domestic systemically important banks. Legislative proposals to establish a resolution regime for financial institutions in Hong Kong and enhance the Deposit Protection Scheme by achieving faster payouts are respectively introduced into the Legislative Council.

## International Financial Centre

The HKMA continues to actively participate in international and regional forums while sparing no effort in raising Hong Kong's competitiveness as an international financial centre. Legislative proposal to improve the tax environment for promoting Hong Kong as a hub for corporate treasury centres is introduced into the Legislative Council in December.

Hong Kong remains the global offshore renminbi business hub with a market of considerable depth and breadth. The Mainland-Hong Kong Mutual Recognition of Funds initiative is implemented in July, further expanding Hong Kong's renminbi product offering.

Hong Kong's financial infrastructure is further enhanced by the successful launch of the e-Cheque service in December, allowing customers to issue and deposit cheques online. A new regulatory regime which provides for licensing of multi-purpose stored value facilities and designation of important retail payment systems commences operation in November.

## Reserves Management

Amid the challenging and difficult investment environment, the Exchange Fund records an overall investment return of -0.6%. Total assets of the Fund reach HK\$3,422.9 billion at the end of 2015.

The HKMA quickens the pace of investment diversification, especially through investments under the Long-Term Growth Portfolio (LTGP). At the end of 2015, the market value of investments under the LTGP totals HK\$142.1 billion, made up of HK\$91.3 billion in private equity and HK\$50.8 billion in real estate, with outstanding investment commitments amounting to HK\$122.4 billion.

## Corporate Functions

The HKMA maintains effective communications with the community and the market through the media, public education programmes, and various other channels to facilitate understanding of its policies and operations. Corporate governance is further improved by supporting professional development of staff, instituting rigorous financial discipline, enhancing IT security, and realigning duties among senior management to help cope with challenges arising from the implementation of new initiatives and the increasing complexity of work.

# Chief Executive's Statement



In last year's annual report, I predicted the global macro environment and financial markets in 2015 would become more complicated and volatile than 2014. It turned out market conditions in 2015 were indeed much more complicated and volatile than I expected. While technically speaking there was no financial crisis, market conditions were precarious. Sentiment was mainly affected by three negative factors — unbalanced and unconventional monetary policies, continued weak fundamentals in developed countries, and gloomy outlook for the emerging markets.

Monetary policies adopted by the major central banks had become more divergent since 2015. For most part of the year the US Federal Reserve wavered between “to hike or not to hike”, before it finally decided to raise the policy rate in December, signalling the start of interest rate normalisation. On the other hand, both the eurozone and Japan entered an era of negative interest rates. Amid the expectations of US interest rate hikes, US dollar continued to strengthen, resulting in the depreciation of other currencies and, indirectly, a sharp fall in commodity prices. Crude oil prices plunged from over US\$100 a barrel in mid-2014 to below US\$30. Global equity markets were generally on an upward trend in the first half of the year with stock market indices in Mainland China and Hong Kong rising markedly. However, the momentum was short-lived. Within three months the Hong Kong and Mainland stock markets had plummeted, with the Hang Seng Index registering the largest quarterly fall of over 5,000 points in the third quarter. Amid the falling equity prices and the renminbi exchange rate reform, market concerns over the outlook of the Mainland economy continued to grow and were in the spotlight of the financial markets, particularly in the second half of 2015.

The gloomy mood in global financial markets continued into 2016 and affected the Hong Kong dollar exchange rate, which at one point approached the weak-side Convertibility Undertaking level of 7.85 against the US dollar. Coupled with the bearish views of some overseas investment funds on the Hong Kong dollar, and some hedge funds betting on the Hong Kong dollar de-pegging from the US dollar, rumours spread quickly that financial predators were launching an attack on the Hong Kong dollar, like what they did in 1998. To quell the speculation, the HKMA sent timely messages to the markets and the public through various channels, stating clearly that the robustness of Hong Kong's financial systems had strengthened significantly since the Asian financial crisis in 1997-98; the Aggregate Balance of the banking system, the Monetary Base and the foreign currency assets in the Exchange Fund had grown considerably since then; and the HKMA was fully ready to deal with any significant outflow of funds. These timely assurances, supported by well-substantiated arguments, quickly restored market confidence.

Banking stability is a core element in the maintenance of financial stability. We have consistently emphasised the importance of taking preventive measures to strengthen Hong Kong banks' resilience against any shocks arising from US interest rate normalisation and changes in the global macroeconomic environment. The over-heated property market continued to be our supervisory priority. Since 2009 the HKMA has introduced seven rounds of countercyclical prudential measures, the latest round being launched in February 2015. As a result, the average loan-to-value ratio of new residential mortgages dropped to 50% at the end of 2015, 14 percentage points lower than the ratio in 2009. The average debt servicing ratio of new residential mortgages also dropped 7 percentage points to 34% in December 2015 from 41% in August 2010. Banks and property buyers are now far more resilient to any shocks caused by a downward cycle in the property market.

In addition to the countercyclical measures, the HKMA has been working in full swing to implement the Basel III capital and liquidity requirements with a view to further enhancing the financial robustness and resilience of the banking system. We closely monitor banks' lending business and their resilience against abrupt changes in the markets through our day-to-day supervisory work, such as stress-testing and thematic supervision. As the banking system has a substantial exposure to Mainland-related lending, we have strengthened our supervisory efforts — through regular surveys, establishment of a database, more in-depth and granular analyses of the loan quality — to ensure banks have taken comprehensive and prudent credit risk management measures.

The overall loan quality of the banking industry remains sound although it deteriorated slightly in 2015. Retail banks' classified loan ratio edged up to 0.70% at the end of 2015 from a very low level of 0.52% at the end of 2014.

There was significant progress in the legislative work to reform the banking system. We completed the drafting of the Financial Institutions (Resolution) Bill and introduced it into the Legislative Council last December. The Bill seeks to implement international requirements to reduce the risk posed to the financial system by the "too big to fail" financial institutions. Another amendment bill, aimed at improving the Deposit Protection Scheme, was also introduced into the Legislative Council in November to streamline the payout process and further strengthen public confidence in the banking system.

2015 also saw remarkable achievements in the development of Hong Kong's financial infrastructure. The Payment Systems and Stored Value Facilities Ordinance came into effect, providing a legal framework for the healthy development of the retail payment industry in Hong Kong. The HKMA has been in close contact with the industry to prepare for the licensing and future day-to-day supervisory work that supports industry development while safeguarding public interest. The e-Cheque service was also successfully launched during the year, offering individuals and corporations an efficient, safe and cost-effective alternative to traditional paper cheques.

## Chief Executive's Statement

The HKMA has been actively promoting the development of Hong Kong as a regional hub for corporate treasury centres. Our objective is to attract multinational enterprises to conduct their group treasury management activities in Hong Kong, thereby strengthening the role of Hong Kong as an international financial centre. Apart from active involvement in the legislative process to create an enabling tax environment, we are also lobbying and encouraging multinational corporations to set up their corporate treasury centres in Hong Kong.

We are pressing ahead with the promotion of financial inclusion. In view of the inadequate provision of basic banking services in some remote or under-served areas, the HKMA has been encouraging the banking industry to open more physical branches or make use of new technology, such as video teller machines or mobile branches, to provide these services.

To further enhance the soft power of Hong Kong's banking sector, we adopt a three-pronged strategy — enhancing the competence of industry practitioners; improving the corporate governance of banks; and promoting consumer education. In collaboration with the industry, we are introducing a series of Enhanced Competency Framework to provide training programmes, examinations and accreditation for banking practitioners. Initially the framework for private wealth management has been launched, and we are working on the framework for practitioners engaged in anti-money laundering and counter-terrorist financing. We have also enlisted the help of experts to study how the role of independent non-executive directors can be strengthened to improve the corporate governance of banks; and on consumer education, we have employed both traditional media and social networking platforms to encourage the public to be smart and responsible in the use of banking products and services.

2015 was an eventful year for the development of offshore renminbi business in Hong Kong. The International Monetary Fund's decision to include renminbi in its Special Drawing Rights (SDR) currency basket has far-reaching significance for the internationalisation of renminbi. Indeed, the Central Government highly commended Hong Kong for its role as an offshore renminbi centre and for its invaluable contributions to the inclusion of renminbi in the SDR basket.

Following the reforms to the renminbi exchange rate fixing mechanism in August, market expectations about the renminbi exchange rate have changed markedly. Also triggered by other factors, the offshore renminbi liquidity pool in Hong Kong contracted by 13% year-on-year to about RMB1 trillion, and offshore renminbi interbank rates rose sharply in January 2016. Thanks to the various renminbi liquidity facilities put in place earlier, Hong Kong's offshore renminbi market continued to operate in an orderly manner and helped extend the much needed liquidity to other offshore markets, underscoring Hong Kong's position as the world's leading offshore renminbi centre.

2015 was an extremely challenging year for the investment of the Exchange Fund. A prolonged period of excess liquidity resulted in huge market volatilities and the rare case of a "triple whammy", where all three major asset classes, namely equities, bonds and foreign currencies, plummeted in tandem. In this erratic environment, even a conservative fund like the Exchange Fund unavoidably recorded a loss of HK\$15.8 billion, or an investment return of -0.6%. Nevertheless, the loss was relatively mild compared with that of some major investment funds and market indices.

Apart from a series of timely defensive moves to help mitigate potential investment losses, we have quickened the pace of asset diversification. In particular, newly approved private equity and real estate investments under the Exchange Fund's Long-Term Growth Portfolio were doubled to US\$9.7 billion in 2015. Since its inception, this portfolio has recorded an annualised internal rate of return of 12%.

The Exchange Fund is not an ordinary profit-oriented investment fund because its main statutory purpose is to maintain monetary and financial stability. As global financial markets enter a post-quantitative easing era, characterised by "low return and high volatility", the safest and most responsible approach is to adhere to the principle of "capital preservation first, long-term growth next" and avoid pursuing short-term returns by taking excessive risks.

Looking ahead, we should expect heightened uncertainty in the macroeconomic environment in 2016. As market sentiment remains fragile and jittery, any slight signs of trouble could trigger strong reactions in financial markets. At the time of writing my statement, market views on the pace of interest rate hikes in the US this year are still quite diverse. But we must be prepared. Depending on the size of the interest rate differentials between the Hong Kong dollar and the US dollar and other fundamental factors, outflows from the Hong Kong dollar will occur sooner or later. The Hong Kong dollar may weaken to touch the weak-side Convertibility Undertaking of 7.85, mostly likely during turbulent times. Yet the triggering of the weak-side Convertibility Undertaking is, by design, a necessary step in the normalisation process of Hong Kong dollar interest rates. The key is that Hong Kong's financial system is resilient enough to withstand volatile capital flows. The HKMA's determination and ability to maintain the Linked Exchange Rate System are beyond doubt.

Recently, there have been suggestions calling for adjustment to the HKMA's countercyclical measures for the property market. The average residential property transaction volume in Hong Kong between last August and December decreased by more than 30% compared with the period between January and July. Property prices in the secondary market also fell. However, judging from past experience in the property market, short-term movements may not provide a sufficient basis for assessing clearly the market trends ahead. We need to observe market developments for a longer period before we can be certain that the property market has entered a downward cycle. Nevertheless, we will closely monitor the property market and take appropriate measures as and when needed to maintain banking stability.



**Norman T.L. CHAN**  
Chief Executive



# About the HKMA

**The Hong Kong Monetary Authority is Hong Kong's central banking institution. The HKMA has four main functions: maintaining currency stability within the framework of the Linked Exchange Rate System; promoting the stability and integrity of the financial system, including the banking system; helping to maintain Hong Kong's status as an international financial centre, including the maintenance and development of Hong Kong's financial infrastructure; and managing the Exchange Fund.**

## THE HKMA'S LEGAL MANDATE

The HKMA was established on 1 April 1993 after the Legislative Council passed amendments to the Exchange Fund Ordinance in 1992 empowering the Financial Secretary to appoint a Monetary Authority.

The powers, functions and responsibilities of the Monetary Authority are set out in the Exchange Fund Ordinance, the Banking Ordinance, the Deposit Protection Scheme Ordinance, the Payment Systems and Stored Value Facilities Ordinance and other relevant Ordinances. The division of functions and responsibilities in monetary and financial affairs between the Financial Secretary and the Monetary Authority is set out in an Exchange of Letters between them dated 25 June 2003. This Exchange of Letters also discloses the delegations made by the Financial Secretary to the Monetary Authority under these Ordinances. The letters are public documents and may be found on the HKMA website.

The Exchange Fund Ordinance establishes the Exchange Fund under the control of the Financial Secretary. According to the Ordinance, the Fund shall be used primarily for affecting the exchange value of the Hong Kong dollar. It may also be used for maintaining the stability and integrity of the monetary and financial systems of Hong Kong, with a view to maintaining Hong Kong as an international financial centre.

The Monetary Authority is appointed under the Exchange Fund Ordinance to assist the Financial Secretary in performing his functions under the Exchange Fund Ordinance and to perform such other functions as are assigned by other Ordinances or by the Financial Secretary. The office of the Monetary Authority is known as the HKMA, and the Monetary Authority is the Chief Executive of the HKMA.

The Banking Ordinance provides the Monetary Authority with the responsibility and powers for regulating and supervising banking business and the business of taking deposits. Under the Ordinance, the Monetary Authority is responsible for the authorization of licensed banks, restricted licence banks and deposit-taking companies in Hong Kong.

The Payment Systems and Stored Value Facilities Ordinance provides a statutory regime for the Monetary Authority to designate and oversee clearing and settlement systems that are material to the monetary or financial stability of Hong Kong or to the functioning of Hong Kong as an international financial centre. It also empowers the Monetary Authority to implement a licensing system for stored value facilities and to designate retail payment systems to ensure their operations are safe and efficient.

Under the Deposit Protection Scheme Ordinance, the Monetary Authority is charged with the responsibility to implement the decisions of the Hong Kong Deposit Protection Board, such as deciding whether compensation should be paid to the depositors of a failed scheme bank pursuant to the Ordinance.

## THE HKMA AND THE HONG KONG SPECIAL ADMINISTRATIVE REGION GOVERNMENT

The HKMA is an integral part of the Hong Kong Special Administrative Region Government, but is able to employ staff on terms different from those of the civil service in order to attract personnel of the right experience and expertise. The Chief Executive of the HKMA and his staff are public officers. In its day-to-day work the HKMA operates with a high degree of autonomy within the relevant statutory powers conferred upon, or delegated to, the Monetary Authority.

The Financial Secretary is responsible for determining the monetary policy objective and the structure of the monetary system of Hong Kong: a letter from the Financial Secretary to the Monetary Authority dated 25 June 2003 specifies that these should be currency stability defined as a stable exchange value at around HK\$7.80 to one US dollar maintained by Currency Board arrangements. The Monetary Authority is on his own responsible for achieving the monetary policy objective, including determining the strategy, instruments and operational means for doing so. He is also responsible for maintaining the stability and integrity of the monetary system of Hong Kong.

The Financial Secretary, assisted by the Secretary for Financial Services and the Treasury, has responsibility for policies for maintaining the stability and integrity of Hong

Kong's financial system and the status of Hong Kong as an international financial centre. In support of these policies, the Monetary Authority's responsibilities include:

- promoting the general stability and effective working of the banking system
- promoting the development of the debt market, in co-operation with other relevant bodies
- matters relating to the issuance and circulation of legal tender notes and coins
- promoting the safety and efficiency of the financial infrastructure through the development of payment, clearing and settlement systems and, where appropriate, the operation of these systems
- seeking to promote, in co-operation with other relevant bodies, confidence in Hong Kong's monetary and financial systems, and market development initiatives to help strengthen the international competitiveness of Hong Kong's financial services.

The Exchange Fund is under the control of the Financial Secretary. The Monetary Authority, under delegation from the Financial Secretary, is responsible to the Financial Secretary for the use of the Exchange Fund, and for the investment management of the Fund.

# About the HKMA

## ACCOUNTABILITY AND TRANSPARENCY

The autonomy given to the HKMA in its day-to-day operations, and in the methods it uses to pursue policy objectives determined by the Government, is complemented by a high degree of accountability and transparency.

The HKMA serves Hong Kong by promoting monetary and banking stability, by managing the official reserves effectively, and by developing and overseeing a robust and diverse financial infrastructure. These processes help to strengthen Hong Kong's role as an international financial centre and to foster Hong Kong's economic well-being. The HKMA must have the confidence of the community if it is to perform its duties well. The HKMA therefore takes seriously the duty of explaining its policies and work to the general public and makes every effort to address any concerns within the community relevant to the HKMA's responsibilities.

The HKMA is accountable to the people of Hong Kong through the Financial Secretary, who appoints the Monetary Authority, and through the laws passed by the Legislative Council that set out the Monetary Authority's powers and responsibilities. The HKMA also recognises a broader responsibility to promote a better understanding of its roles and objectives and to keep itself informed of community concerns. In its day-to-day operations and in its wider contacts with the community, the HKMA pursues

a policy of transparency and accessibility. This policy has two main objectives:

- to keep the financial industry and the public as fully informed about the work of the HKMA as possible, subject to considerations of market sensitivity, commercial confidentiality and statutory restrictions on disclosure of confidential information
- to ensure that the HKMA is in touch with, and responsive to, the community it serves.

The HKMA seeks to follow international best practices in its transparency arrangements. It maintains extensive relations with the mass media and produces a range of regular and special publications in both English and Chinese. The HKMA's bilingual website ([www.hkma.gov.hk](http://www.hkma.gov.hk)) carries a large number of HKMA publications, press releases, speeches and presentations, in addition to special sections on research, statistics, consumer information and other topics. The HKMA maintains an Information Centre at its offices, consisting of a Library and an Exhibition Area, which is open to the public six days a week. The HKMA also organises public education programmes to inform the public, and in particular students, about the work of the HKMA through seminars and guided tours at the Information Centre. Further information on the HKMA's media work, publications and public education programmes is contained in the chapter on Corporate Functions.

Over the years the HKMA has progressively increased the detail and frequency of its disclosure of information on the Exchange Fund and Currency Board Accounts. Since 1999 the HKMA has participated in the International Monetary Fund's Special Data Dissemination Standard project for central banks. The HKMA publishes records of meetings of the Currency Board Sub-Committee of the Exchange Fund Advisory Committee and the reports on Currency Board operations. The supervisory policies and guidelines on banking have been published on the website since 1996.

The relations between the HKMA and the Legislative Council play an important part in promoting accountability and transparency. There is a formal commitment from the Chief Executive of the HKMA to appear before the Panel on Financial Affairs of the Legislative Council three times a year to brief Members and to answer questions on the HKMA's work. Representatives from the HKMA attend Legislative Council Panel meetings from time to time to explain and discuss particular issues, and committee meetings to assist Members in their scrutiny of draft legislation.

## ADVISORY AND OTHER COMMITTEES

### Exchange Fund Advisory Committee

In his control of the Exchange Fund, the Financial Secretary is advised by the Exchange Fund Advisory Committee (EFAC). EFAC is established under section 3(1) of the Exchange Fund Ordinance, which requires the Financial Secretary to consult the Committee in his exercise of control of the Exchange Fund. The Financial Secretary is ex officio Chairman of EFAC. Other members, including the Monetary Authority, are appointed in a personal capacity by the Financial Secretary under the delegated authority of the Chief Executive of the Hong Kong Special Administrative Region. Members of EFAC are appointed for the expertise and experience that they can bring to the committee. Such expertise and experience include knowledge of monetary, financial and economic affairs and of investment issues, as well as of accounting, management, business and legal matters.

EFAC is assisted in its work by five Sub-Committees, which monitor specific areas of the HKMA's work and report and make recommendations to the Financial Secretary through EFAC. The Committee held six meetings in 2015 to discuss the full range of issues relating to the work of the HKMA, most of which had been previously discussed by the relevant Sub-Committees.

## About the HKMA

The *Governance Sub-Committee* monitors the performance of the HKMA and makes recommendations on remuneration and human resources policies, and on budgetary, administrative and governance issues. The Sub-Committee met five times in 2015 to consider a range of subjects including the HKMA's expenditure budget, the HKMA's performance assessment, the annual pay review and strategic planning matters. The Sub-Committee also received regular reports on the work of the HKMA.

The *Audit Sub-Committee* reviews and reports on the HKMA's financial reporting process and the adequacy and effectiveness of the internal control systems of the HKMA. The Sub-Committee reviews the HKMA's financial statements, and the composition and accounting principles adopted in such statements. It also examines and reviews with both the external and internal auditors the scope and results of their audits. None of the members of the Sub-Committee performs any executive functions in the HKMA. The Sub-Committee met three times in 2015 and received reports on the work of the Internal Audit Division.

The *Currency Board Sub-Committee* monitors and reports on the Currency Board arrangements that underpin Hong Kong's Linked Exchange Rate System. It is responsible for ensuring that Currency Board operations are in accordance with established policy, recommending improvements to the Currency Board system, and ensuring a high degree of transparency in the operation of the system. Records of the Sub-Committee's meetings and the reports on Currency Board operations submitted to the Sub-Committee are published. In 2015 the Sub-Committee met four times.

The *Investment Sub-Committee* monitors the HKMA's investment management work and makes recommendations on the investment policy and strategy of the Exchange Fund and on risk management and other related matters. The Sub-Committee held six meetings during 2015.

The *Financial Infrastructure Sub-Committee* makes recommendations on measures to further develop Hong Kong's status as an international financial centre and strengthen the international competitiveness of Hong Kong's financial services, including promoting the development, operational excellence, safety and efficiency of the financial infrastructure in Hong Kong; and promoting the development of Hong Kong as an offshore renminbi centre and fostering the development of other enabling factors. It also makes recommendations on initiatives for the HKMA and monitors the work of the HKMA. In 2015 the Sub-Committee met four times.

*Brief biographies of EFAC Members and the Code of Conduct for EFAC Members may be found on the HKMA website. A Register of Members' Interests, which contains the declarations of interests by Members, is available for public inspection during 10:00 a.m. to 6:00 p.m. Monday to Friday (except public holidays) at the HKMA offices.*

### **Banking Advisory Committee**

The Banking Advisory Committee is established under section 4(1) of the Banking Ordinance to advise the Chief Executive of the Hong Kong Special Administrative Region on matters relating to the Banking Ordinance, in particular matters relating to banks and the carrying on of banking business. The Committee consists of the Financial Secretary as the Chairman, the Monetary Authority, and other persons appointed by the Financial Secretary under the delegated authority of the Chief Executive of the Hong Kong Special Administrative Region.

### **Deposit-Taking Companies Advisory Committee**

The Deposit-Taking Companies Advisory Committee is established under section 5(1) of the Banking Ordinance to advise the Chief Executive of the Hong Kong Special Administrative Region on matters relating to the Banking Ordinance, in particular matters relating to deposit-taking companies and restricted licence banks and the carrying on of a business of taking deposits by them. The Committee consists of the Financial Secretary as the Chairman, the Monetary Authority, and other persons appointed by the Financial Secretary under the delegated authority of the Chief Executive of the Hong Kong Special Administrative Region.

### **Chief Executive's Committee**

The Chief Executive's Committee comprises the Chief Executive of the HKMA, who chairs the Committee, the Deputy Chief Executives, the Senior Executive Directors and the Executive Directors of the HKMA. The Committee meets regularly to report to the Chief Executive on the progress of major tasks being undertaken by the various departments of the HKMA and to advise him on policy matters relating to the operations of the HKMA.

# Advisory Committees

## THE EXCHANGE FUND ADVISORY COMMITTEE

29 February 2016

### Chairman



**The Honourable John TSANG Chun-wah**, GBM, JP  
The Financial Secretary

### Members



**Mr Norman T.L. CHAN**, GBS, JP  
The Monetary Authority



**Professor Lawrence J. LAU**, GBS, JP  
Ralph and Claire Landau Professor of Economics  
The Chinese University of Hong Kong



**Mr Benjamin HUNG Pi-cheng**, BBS, JP  
Regional Chief Executive Officer, Greater China & North Asia  
Standard Chartered Bank (Hong Kong) Limited



**Mr Peter WONG Tung-shun**, JP  
Deputy Chairman and Chief Executive  
The Hongkong and Shanghai Banking Corporation Limited



**Mr Carlson TONG**, SBS, JP  
Chairman  
Securities and Futures Commission



**Dr David WONG Yau-kar**, BBS, JP  
Managing Director  
United Overseas Investments Limited





**Dr LO Ka-shui**, GBS, JP  
Chairman and Managing Director  
Great Eagle Holdings Limited



**Professor Stephen CHEUNG Yan-leung**, BBS, JP  
President  
The Hong Kong Institute of Education



**Mrs Angelina LEE WONG Pui-ling**, SBS, JP  
Partner  
Woo, Kwan, Lee & Lo



**Mr Philip TSAI Wing-chung**, JP  
Vice Chairman  
Deloitte China



**Mr T. Brian STEVENSON**, SBS, JP



**Mr Nicky LO Kar-chun**, SBS, JP

## Advisory Committees



**Mr YUE Yi**  
Vice Chairman & Chief Executive  
Bank of China (Hong Kong) Limited  
(from 15 July 2015)



**Mr Silas YANG Siu-shun, JP**  
(from 1 September 2015)



**Mr Anthony CHOW Wing-kin, SBS, JP**  
Senior Partner  
Peter C. Wong, Chow & Chow  
(from 1 October 2015)



**Dr Moses CHENG Mo-chi, GBS, JP**  
Consultant  
P. C. Woo & Co.  
(from 1 February 2016)



**Mr HE Guangbei, JP**  
(until 5 March 2015)



**Mr Lester HUANG, JP**  
Managing Partner  
P. C. Woo & Co.  
(until 29 February 2016)



**Ms Teresa KO Yuk-yin, JP**  
Partner and China Chairman  
Freshfields Bruckhaus Deringer  
(until 29 February 2016)



**Mr PANG Yiu-kai, SBS, JP**  
Chief Executive  
Hongkong Land Holdings Limited  
(until 29 February 2016)

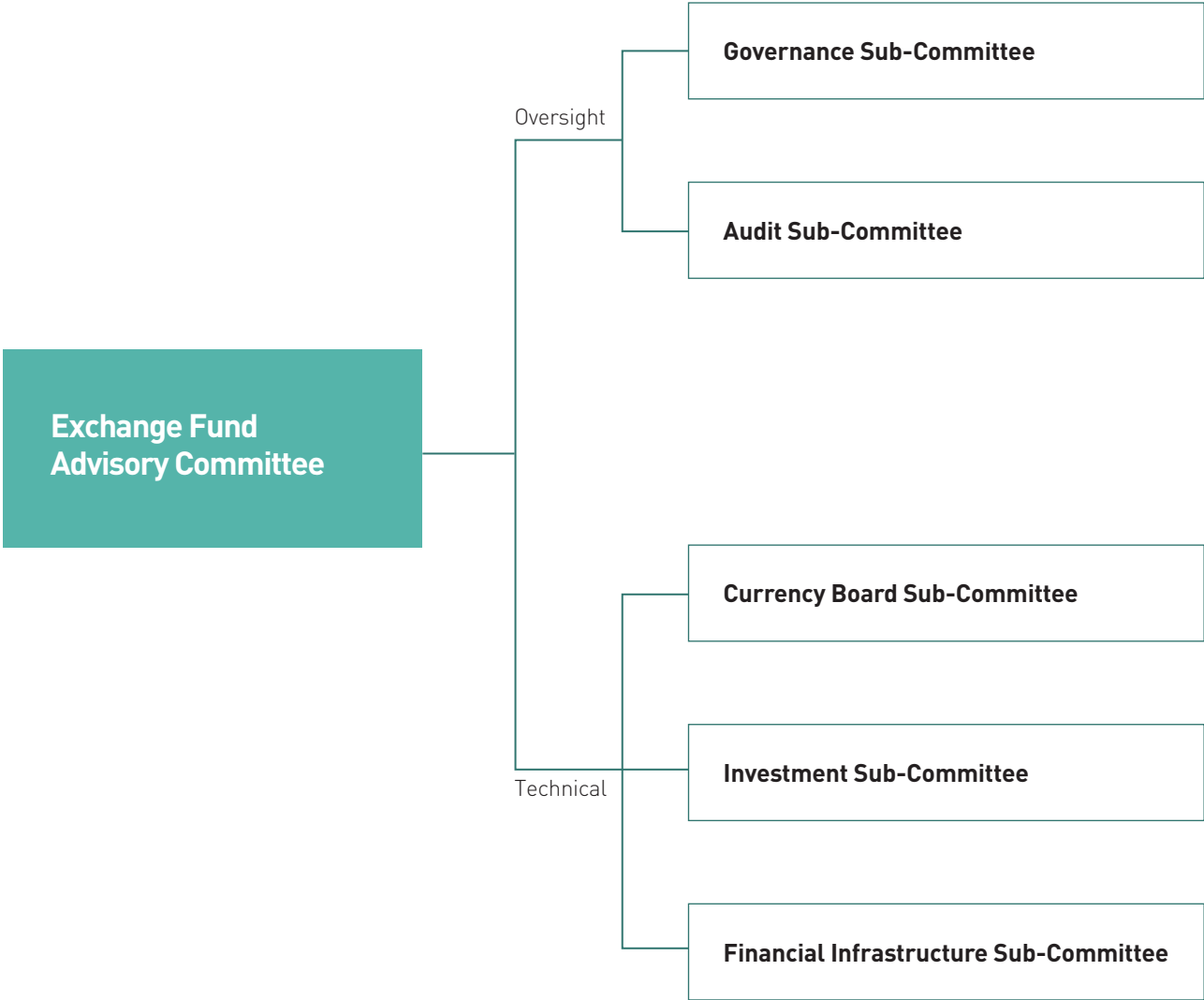
## Secretary

**Ms Carrie CHAN**  
(from 29 June 2015)

**Mr Clement LAU**  
(until 14 June 2015)

# Advisory Committees

## THE EXCHANGE FUND ADVISORY COMMITTEE SUB-COMMITTEE STRUCTURE



## THE EXCHANGE FUND ADVISORY COMMITTEE GOVERNANCE SUB-COMMITTEE

### Chairman

**Professor Lawrence J. LAU**, GBS, JP  
Ralph and Claire Landau Professor of Economics  
The Chinese University of Hong Kong

### Members

**Mr Carlson TONG**, SBS, JP  
Chairman  
Securities and Futures Commission

**Dr LO Ka-shui**, GBS, JP  
Chairman and Managing Director  
Great Eagle Holdings Limited

**Mrs Angelina LEE WONG Pui-ling**, SBS, JP  
Partner  
Woo, Kwan, Lee & Lo

**Mr T. Brian STEVENSON**, SBS, JP

**Mr Silas YANG Siu-shun**, JP  
(from 2 September 2015)

**Dr Moses CHENG Mo-chi**, GBS, JP  
Consultant  
P. C. Woo & Co.  
(from 1 February 2016)

**Ms Teresa KO Yuk-yin**, JP  
Partner and China Chairman  
Freshfields Bruckhaus Deringer  
(until 29 February 2016)

**Dr David WONG Yau-kar**, BBS, JP  
Managing Director  
United Overseas Investments Limited

**Professor Stephen CHEUNG Yan-leung**, BBS, JP  
President  
The Hong Kong Institute of Education

**Mr Philip TSAI Wing-chung**, JP  
Vice Chairman  
Deloitte China

**Mr Nicky LO Kar-chun**, SBS, JP

**Mr Anthony CHOW Wing-kin**, SBS, JP  
Senior Partner  
Peter C. Wong, Chow & Chow  
(from 26 October 2015)

**Mr Lester HUANG**, JP  
Managing Partner  
P. C. Woo & Co.  
(until 29 February 2016)

**Mr PANG Yiu-kai**, SBS, JP  
Chief Executive  
Hongkong Land Holdings Limited  
(until 29 February 2016)

### Secretary

**Ms Carrie CHAN**  
(from 29 June 2015)

**Mr Clement LAU**  
(until 14 June 2015)

# Advisory Committees

## Terms of reference

- (1) To monitor the performance of the HKMA in carrying out its functions and responsibilities and in its use of resources, and to formulate recommendations to the Financial Secretary through the Exchange Fund Advisory Committee (EFAC) on
  - (a) the remuneration and human resources policies of the HKMA;
  - (b) remuneration for HKMA staff, taking account of the Sub-Committee's assessment of the quality and effectiveness of the HKMA's work; and
  - (c) the use of resources of the HKMA, including its annual administrative budget.
- (2) To consider recommendations and provide advice to the Financial Secretary on the appointment and dismissal of staff at the level of Executive Director and above.
- (3) To keep under review the governance arrangements for the HKMA and to make recommendations to the Financial Secretary through EFAC as appropriate.

## THE EXCHANGE FUND ADVISORY COMMITTEE AUDIT SUB-COMMITTEE

### Chairman

**Mr Carlson TONG**, SBS, JP  
Chairman  
Securities and Futures Commission

### Members

**Mrs Angelina LEE WONG Pui-ling**, SBS, JP  
Partner  
Woo, Kwan, Lee & Lo

**Mr Philip TSAI Wing-chung**, JP  
Vice Chairman  
Deloitte China

**Mr T. Brian STEVENSON**, SBS, JP

**Mr Silas YANG Siu-shun**, JP  
(from 2 September 2015)

**Mr HE Guangbei**, JP  
(until 5 March 2015)

### Secretary

**Ms Carrie CHAN**  
(from 29 June 2015)

**Mr Clement LAU**  
(until 14 June 2015)



# Advisory Committees

## Terms of reference

(1) The objectives of the Audit Sub-Committee are as follows:

- (a) to help Members of the Exchange Fund Advisory Committee to discharge their responsibilities for ensuring the proper and smooth running of the HKMA operations and management of the Exchange Fund;
- (b) to consider any matters relating to the financial affairs of the HKMA and the internal and external audit of the HKMA's financial statements as the Sub-Committee may think necessary or desirable;
- (c) to encourage higher quality accounting and audit and provide more credible and objective financial reporting of the HKMA; and
- (d) to consider any other matters referred to it by the Committee; and to report on all such matters to the Committee.

(2) The functions of the Sub-Committee include, but are not restricted to, the following:

- (a) reviewing the HKMA's financial statements, the composition and accounting principles adopted in such statements, whether these are intended to be audited or published or not;
- (b) advising on the form and content of the financial statements of the HKMA;
- (c) examining and reviewing with both the external and internal auditors the scope and results of their audits;

(d) reviewing the findings, recommendations or criticisms of the auditors, including their annual management letter and management's response;

(e) reviewing the HKMA's management procedures to ensure the effectiveness of internal systems of accounting and control, and management's efforts to correct deficiencies discovered in audits; and

(f) initiating investigations or audit reviews into any activities of the HKMA which may be of concern or interest to the Sub-Committee.

(3) Authority

The Sub-Committee shall be entitled to obtain any information it requires from any member or employee of the HKMA, and all such members and employees shall be instructed to assist the Sub-Committee to the fullest extent possible. The Sub-Committee may also take such independent legal or other professional advice as it considers necessary. The Sub-Committee shall have no executive powers as regards its findings and recommendations.

(4) Meetings

The Sub-Committee shall meet at least twice a year. The Secretary to the Exchange Fund Advisory Committee shall attend its meetings and take minutes, copies of which shall be circulated to the Committee. The Chief Executive of the HKMA shall be entitled to attend the Sub-Committee's meetings. In all other respects, the Sub-Committee shall decide its own procedures.

# THE EXCHANGE FUND ADVISORY COMMITTEE CURRENCY BOARD SUB-COMMITTEE

## Chairman

**Mr Norman T.L. CHAN**, GBS, JP  
The Monetary Authority

## Members

**Mr Eddie YUE**, JP  
Deputy Chief Executive  
Hong Kong Monetary Authority

**Mr Peter PANG**, JP  
Deputy Chief Executive  
Hong Kong Monetary Authority  
(until 25 February 2016)

**Dr John GREENWOOD**  
Group Chief Economist  
INVESCO Asset Management Limited

**Mr KWOK Kwok-chuen**, BBS, JP  
Honorary Senior Research Fellow  
School of Economics and Finance  
The University of Hong Kong

**Dr David WONG Yau-kar**, BBS, JP  
Managing Director  
United Overseas Investments Ltd

**Professor Stephen CHEUNG Yan-leung**, BBS, JP  
President  
The Hong Kong Institute of Education

**Ms Anita FUNG Yuen-mei**, BBS, JP  
Chairperson  
The Hong Kong Association of Banks  
(until 17 March 2015)

## Secretary

**Ms Carrie CHAN**  
(from 29 June 2015)

**Mr Clement LAU**  
(until 14 June 2015)

**Mr Arthur YUEN**, JP  
Deputy Chief Executive  
Hong Kong Monetary Authority

**Mr Howard LEE**, JP  
Senior Executive Director  
Hong Kong Monetary Authority  
(from 26 February 2016)

**Professor Lawrence J. LAU**, GBS, JP  
Ralph and Claire Landau Professor of Economics  
The Chinese University of Hong Kong

**Professor XIE Danyang**  
Professor  
Department of Economics  
The Hong Kong University of Science and Technology

**Dr PENG Wensheng**  
Global Chief Economist  
Head of Research Department  
CITIC Securities Company Limited

**Ms May TAN Siew-boi**  
Chairperson  
The Hong Kong Association of Banks  
(from 1 January 2016)

**Ms Helen WONG Pik-kuen**  
Chairperson  
The Hong Kong Association of Banks  
(18 March 2015 to 31 December 2015)

# Advisory Committees

## Terms of reference

- (1) To ensure that the operation of the Currency Board arrangements in Hong Kong is in accordance with the policies determined by the Financial Secretary in consultation with the Exchange Fund Advisory Committee.
- (2) To report to the Financial Secretary through the Exchange Fund Advisory Committee on the operation of the Currency Board arrangements in Hong Kong.
- (3) To recommend, where appropriate, to the Financial Secretary through the Exchange Fund Advisory Committee, measures to enhance the robustness and effectiveness of the Currency Board arrangements in Hong Kong.
- (4) To ensure a high degree of transparency in the operation of the Currency Board arrangements in Hong Kong through the publication of relevant information on the operation of such arrangements.
- (5) To promote a better understanding of the Currency Board arrangements in Hong Kong.

# THE EXCHANGE FUND ADVISORY COMMITTEE INVESTMENT SUB-COMMITTEE

## Chairman

**Mr Norman T.L. CHAN**, GBS, JP  
The Monetary Authority

## Members

**Mr Eddie YUE**, JP  
Deputy Chief Executive  
Hong Kong Monetary Authority

**Dr LO Ka-shui**, GBS, JP  
Chairman and Managing Director  
Great Eagle Holdings Limited

**Mr T. Brian STEVENSON**, SBS, JP

**Professor Lawrence J. LAU**, GBS, JP  
Ralph and Claire Landau Professor of Economics  
The Chinese University of Hong Kong  
(from 1 October 2015)

**Mr Peter WONG Tung-shun**, JP  
Deputy Chairman and Chief Executive  
The Hongkong and Shanghai Banking Corporation Limited  
(until 31 January 2016)

**Ms Teresa KO Yuk-yin**, JP  
Partner and China Chairman  
Freshfields Bruckhaus Deringer  
(until 29 February 2016)

**Mr Benjamin HUNG Pi-cheng**, BBS, JP  
Regional Chief Executive Officer, Greater China & North Asia  
Standard Chartered Bank (Hong Kong) Limited

**Mrs Angelina LEE WONG Pui-ling**, SBS, JP  
Partner  
Woo, Kwan, Lee & Lo

**Mr Silas YANG Siu-shun**, JP  
(from 22 September 2015)

**Dr David WONG Yau-kar**, BBS, JP  
Managing Director  
United Overseas Investments Limited  
(from 1 November 2015)

**Mr Lester HUANG**, JP  
Managing Partner  
P. C. Woo & Co.  
(until 29 February 2016)

**Mr PANG Yiu-kai**, SBS, JP  
Chief Executive  
Hongkong Land Holdings Limited  
(until 29 February 2016)

## Secretary

**Ms Carrie CHAN**  
(from 29 June 2015)

**Mr Clement LAU**  
(until 14 June 2015)

## Terms of reference

- (1) To monitor the investment management work of the HKMA.
- (2) To make recommendations to the Financial Secretary, through the Exchange Fund Advisory Committee, on
  - (a) the investment benchmark for the Exchange Fund;
  - (b) the investment policy and risk management of the Fund;
  - (c) the investment strategy for the Fund; and
  - (d) any other matters referred to the Sub-Committee in connection with the investment management of the Exchange Fund.

# Advisory Committees

## THE EXCHANGE FUND ADVISORY COMMITTEE FINANCIAL INFRASTRUCTURE SUB-COMMITTEE

### Chairman

**Mr Norman T.L. CHAN**, GBS, JP  
The Monetary Authority

### Members

**Mr Eddie YUE**, JP  
Deputy Chief Executive  
Hong Kong Monetary Authority

**Mr Howard LEE**, JP  
Senior Executive Director  
Hong Kong Monetary Authority  
(from 26 February 2016)

**Mr Lawrence LAM Yuk-kun**  
Senior Advisor, Greater China  
National Australia Bank

**Mr TSE Kam-keung**  
Chief Executive Officer  
Tradelink Electronic Commerce Limited

**Mrs Ayesha MACPHERSON LAU**, JP  
Head of Local Market  
Head of Tax  
KPMG

**Ms DING Chen**  
Chief Executive Officer  
CSOP Asset Management Limited

**Mr Joseph NGAI**  
Director and Managing Partner, Hong Kong  
McKinsey & Company, Inc. Hong Kong  
(from 1 October 2015)

**Ms Jacqueline LEUNG**  
President & Managing Director  
Leighton Textiles Co., Ltd.  
Leighton Investments Ltd.  
(from 1 January 2016)

### Secretary

**Ms Carrie CHAN**  
(from 29 June 2015)

**Mr Clement LAU**  
(until 14 June 2015)

**Mr Peter PANG**, JP  
Deputy Chief Executive  
Hong Kong Monetary Authority  
(until 25 February 2016)

**Ms Anita FUNG Yuen-mei**, BBS, JP  
Director  
Hong Kong Exchanges and Clearing Limited

**Mr LAU Ming-wai**, BBS, JP  
Chairman  
Chinese Estates Holdings Limited

**Mr Jack CHEUNG Tai-keung**  
Chief Executive Officer  
Treasury Markets Association

**Mr Vincent CHUI Yik-chiu**  
Chief Executive  
Morgan Stanley Asia International Limited

**Mr Harold WONG Tsu-hing**  
Managing Director and Chief Executive  
Dah Sing Banking Group Limited

**Professor Kalok CHAN**  
Dean, CUHK Business School  
The Chinese University of Hong Kong  
(from 1 October 2015)

**Mr HE Guangbei**, JP  
(until 5 March 2015)

## Terms of reference

- (1) To recommend to the Financial Secretary through the Exchange Fund Advisory Committee measures to further develop Hong Kong's status as an international financial centre and strengthen the international competitiveness of Hong Kong's financial services, including –
  - (a) measures to promote the development, operational excellence, safety and efficiency of the financial infrastructure in Hong Kong, particularly payment and settlement arrangements;
  - (b) measures to promote the development of Hong Kong as an offshore renminbi centre;
  - (c) measures to foster the development of other enabling factors that would help enhance the competitiveness of Hong Kong's financial services; and
  - (d) initiatives for the HKMA, in discharging its responsibilities for maintaining the stability and integrity of the monetary and financial systems of Hong Kong, to promote the development of the financial infrastructure and financial markets in Hong Kong under (a) to (c) above.
- (2) To monitor the work of the HKMA in relation to the initiatives identified in (1) above.

# Advisory Committees

## THE BANKING ADVISORY COMMITTEE

### Chairman

**The Honourable John TSANG Chun-wah**, GBM, JP  
The Financial Secretary

### Ex Officio Member

**Mr Norman T.L. CHAN**, GBS, JP  
The Monetary Authority

### Members

**Professor the Honourable K C CHAN**, GBS, JP  
Secretary for Financial Services and the Treasury

**Ms May TAN Siew-boi**  
Chief Executive Officer  
Standard Chartered Bank (Hong Kong) Limited  
Representing Standard Chartered Bank (Hong Kong) Limited

**Mr Carlson TONG**, SBS, JP  
Chairman  
Securities and Futures Commission  
Representing Securities and Futures Commission

**Mrs Kathryn SHIH**  
CEO Wealth Management Asia Pacific  
Group Managing Director  
UBS AG

**Mr Toshhide MOTOSHITA**  
Executive Officer  
Regional Head for Hong Kong and General Manager  
The Bank of Tokyo-Mitsubishi UFJ, Limited  
Hong Kong Branch

**Ms Anita FUNG Yuen-mei**, BBS, JP  
Group General Manager  
Chief Executive Officer Hong Kong  
The Hongkong and Shanghai Banking Corporation Limited  
Representing The Hongkong and Shanghai Banking Corporation Limited  
(until 17 March 2015)

### Secretary

**Ms Jasmin FUNG**

**Mr YUE Yi**  
Vice Chairman and Chief Executive  
Bank of China (Hong Kong) Limited  
Representing Bank of China (Hong Kong) Limited  
(from 6 March 2015)

**Ms Helen WONG Pik-kuen**  
Group General Manager  
Chief Executive, Greater China  
The Hongkong and Shanghai Banking Corporation Limited  
Representing The Hongkong and Shanghai Banking Corporation Limited  
(from 18 March 2015)

**The Honourable NG Leung-sing**, SBS, JP  
Member  
Legislative Council

**Mr Weber LO Wai-pak**  
Country Officer and Chief Executive Officer  
Hong Kong and Macau  
Citibank, N.A.

**Mr HE Guangbei**, JP  
Vice Chairman and Chief Executive  
Bank of China (Hong Kong) Limited  
Representing Bank of China (Hong Kong) Limited  
(until 5 March 2015)



## THE DEPOSIT-TAKING COMPANIES ADVISORY COMMITTEE

### Chairman

**The Honourable John TSANG Chun-wah**, GBS, JP  
The Financial Secretary

### Ex Officio Member

**Mr Norman T.L. CHAN**, GBS, JP  
The Monetary Authority

### Members

**Professor the Honourable K C CHAN**, GBS, JP  
Secretary for Financial Services and the Treasury

**Mr LEE Huat-oon**  
Acting Chairman  
The DTC Association (The Hong Kong Association of  
Restricted Licence Banks and Deposit-taking Companies)  
Representing The DTC Association

**Ms Gilly WONG Fung-han**  
Chief Executive  
Consumer Council  
Representing the Consumer Council

**The Honourable CHAN Kam-lam**, SBS, JP  
Member  
Legislative Council

**Ms Joan HO Yuk-wai**  
Partner  
Financial Services  
KPMG

**Ms Rebecca CHAN Sze-oi**  
Executive General Manager  
Assets & Liabilities  
Personal & Business Banking Group  
China CITIC Bank International Limited

**Mr Vincent CHUI Yik-chiu**  
Chief Executive  
Morgan Stanley Asia International Limited

### Secretary

**Ms Jasmin FUNG**

# Chief Executive's Committee

29 February 2016



**Norman T.L. CHAN, GBS, JP**  
Chief Executive



**Eddie YUE, JP**  
Deputy Chief Executive



**Arthur YUEN, JP**  
Deputy Chief Executive



**Peter PANG, JP**  
Deputy Chief Executive  
(until 25 February 2016)



**Howard LEE, JP**  
Senior Executive Director  
(from 26 February 2016)

Executive Director (Monetary Management)  
(until 25 February 2016)



**Raymond LI, JP**  
Senior Executive Director  
(from 26 February 2016)

Chief Executive Officer  
Hong Kong Mortgage Corporation



**Stefan GANNON, JP**  
General Counsel



**Francis CHU, JP**  
Executive Director (Reserves Management)



**Esmond LEE, JP**  
Executive Director (Financial Infrastructure)



**Karen KEMP, JP**  
Executive Director (Banking Policy)



**Meena DATWANI, JP**  
Executive Director (Enforcement and AML)



**Carmen CHU, JP**  
Executive Director (Banking Conduct)



**Vincent LEE, JP**  
Executive Director (External)



**Henry CHENG, JP**  
Executive Director (Monetary Management)  
(from 26 February 2016)  
Executive Director (Banking Supervision)  
(until 25 February 2016)



**Darryl CHAN, JP**  
Executive Director (Corporate Services)

## Chief Executive's Committee



**Grace LAU**  
Executive Director (Risk and Compliance)  
(from 19 January 2015)



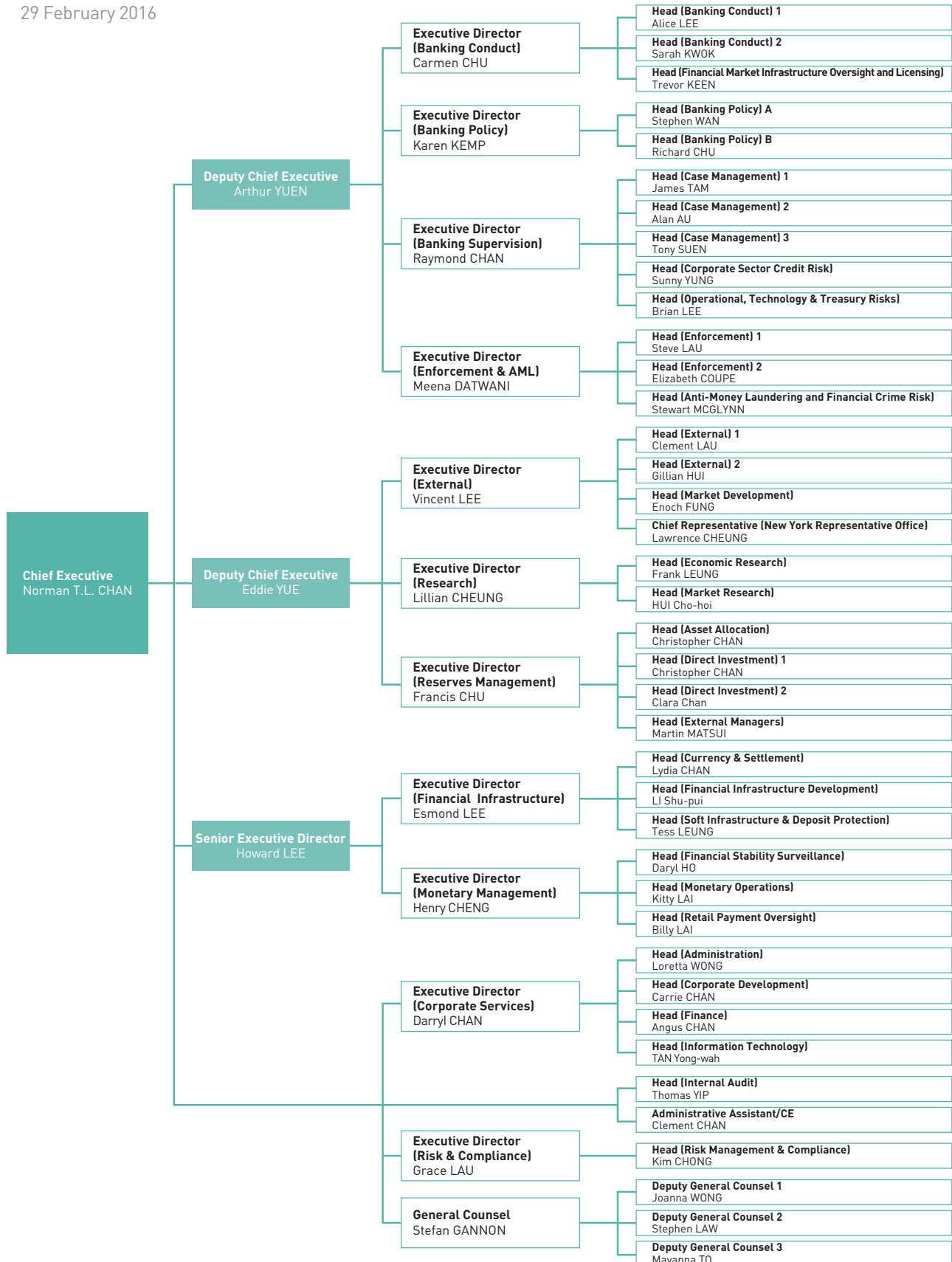
**Lillian CHEUNG**  
Executive Director (Research)  
(from 1 April 2015)



**Raymond CHAN**  
Executive Director (Banking Supervision)  
(from 26 February 2016)

# HKMA Organisation Chart

29 February 2016



# Economic and Financial Environment

The Hong Kong economy experienced slower growth in 2015 reflecting weaker domestic demand and poor export performance. Economic growth for 2016 is expected to remain soft amid stiff external headwinds and fragile financial market conditions.

## THE ECONOMY IN REVIEW

### Overview

Economic growth in Hong Kong moderated during the year, with real Gross Domestic Product (GDP) growth slowing to 2.4% from 2.6% in 2014 (Table 1). This reflected milder expansion in domestic demand, although net exports reverted to a positive contributor to GDP growth as total imports declined faster than total exports (Chart 1). Despite the modest economic performance, the labour

market held broadly stable, with the unemployment rate staying low at about 3.3%. Inflation eased further due to subsiding pressures on domestic costs and import prices. Local stock prices saw large swings amid heightened volatility in global financial markets. The residential property market started to soften after the announcement of the seventh round of prudential measures in February, with housing prices showing further signs of consolidation towards the end of the year.

**Chart 1** Real GDP growth by contribution



Source: Census and Statistics Department.

**Table 1** Real GDP growth by expenditure component (period-over-period)

[%Period-over-period, unless otherwise specified]	2015				2015	2014				2014
	Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4	
<b>Gross Domestic Product</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.2</b>	<b>2.4</b>	0.8	-0.1	1.4	0.4	2.6
(year-on-year growth)	<b>2.4</b>	<b>2.9</b>	<b>2.2</b>	<b>1.9</b>		2.9	2.1	3.1	2.5	
Private consumption expenditure	<b>1.5</b>	<b>1.2</b>	<b>0.2</b>	<b>0.3</b>	<b>4.8</b>	0.5	0.3	2.0	1.4	3.3
Government consumption expenditure	<b>1.1</b>	<b>0.7</b>	<b>0.5</b>	<b>1.1</b>	<b>3.4</b>	0.7	1.2	1.2	0.4	3.0
Gross domestic fixed capital formation	-	-	-	-	<b>-2.2</b>	-	-	-	-	-0.1
Exports										
Exports of goods	<b>-1.8</b>	<b>-2.4</b>	<b>0.4</b>	<b>2.7</b>	<b>-1.7</b>	-1.6	1.0	0.1	0.9	0.8
Exports of services	<b>0.4</b>	<b>-1.0</b>	<b>-1.2</b>	<b>-0.9</b>	<b>-0.6</b>	0.4	-1.8	0.7	0.9	1.1
Imports										
Imports of goods	<b>-2.4</b>	<b>-2.5</b>	<b>-0.8</b>	<b>2.3</b>	<b>-2.5</b>	-1.3	0.1	0.2	2.0	0.9
Imports of services	<b>1.6</b>	<b>1.5</b>	<b>0.4</b>	<b>1.8</b>	<b>5.1</b>	-4.0	3.9	-0.6	1.3	2.0
Overall trade balance (% of GDP)	<b>0.0</b>	<b>-4.2</b>	<b>8.2</b>	<b>4.6</b>	<b>2.4</b>	-1.2	-6.4	5.8	1.4	0.1

Note: The seasonally-adjusted quarter-on-quarter rates of change in the gross domestic fixed capital formation are not available.

Source: Census and Statistics Department.

# Economic and Financial Environment

On the monetary front, exchange-rate stability was maintained in 2015, with the Hong Kong dollar exchange rate hovering near 7.75 against the US dollar. The strong-side Convertibility Undertaking was triggered in April due to equity-related inflows, and again in September and October reflecting conversions of the offshore renminbi into Hong Kong dollars and some commercial demand for Hong Kong dollars. With the enlarged Aggregate Balance, local interest rates continued to stay low, while the HKMA Base Rate was adjusted upwards from 0.5% to 0.75% following the US interest rate lift-off in mid-December. Because of softer credit demand, total loan growth in the banking sector slowed further to 3.5% in 2015 from 12.7% in 2014. The banking industry's overall loan quality weakened slightly, but the classified loan ratios remained at low levels.

## Domestic demand

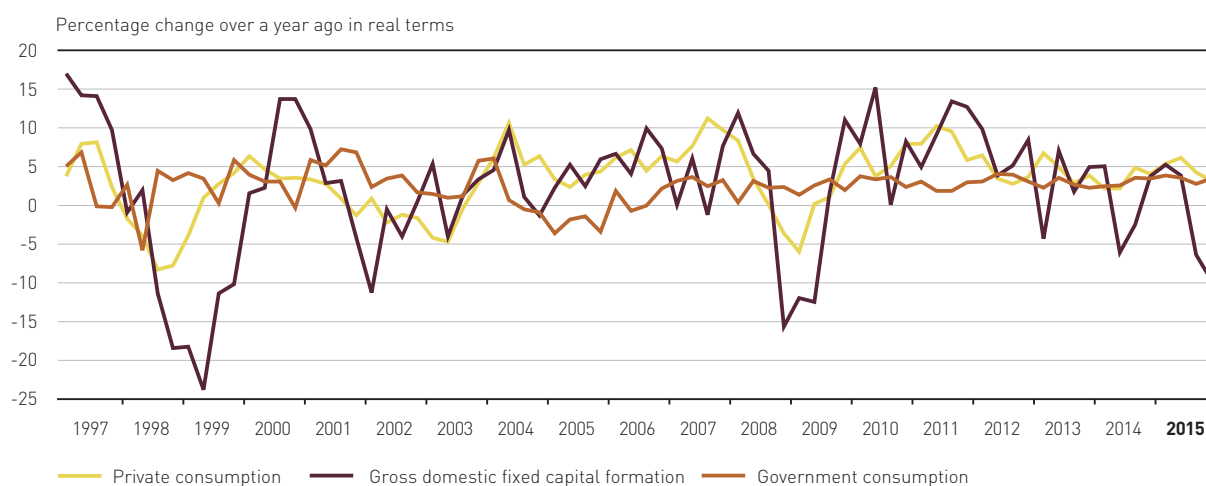
Domestic demand grew at a slower pace in 2015. While broadly stable job and income conditions continued to provide support, weak consumer confidence and corrections in asset prices weighed on private consumption growth in the second half of the year. However, due to the relatively strong growth momentum in the first half, the full-year growth in private consumption increased to 4.8% from 3.3% in 2014. Government consumption increased slightly faster by 3.4%. In fact, the slower growth in

domestic demand was mainly due to the 2.2% decline in gross domestic fixed capital formation (Chart 2). Private-sector machinery and equipment acquisition contracted for the second consecutive year amid deteriorating business sentiment, and building and construction activities also showed weaker growth momentum alongside slower progress in public projects.

## External demand

Hong Kong's export performance deteriorated in 2015 (Chart 3). Exports of goods recorded a broad-based 1.7% decline, the first time since 2009. Exports to Japan and the European Union declined, while those to the US recorded little growth. The feeble final demand from these advanced markets also weighed on regional industrial activities and intra-regional trade. As a result, Hong Kong's exports to Mainland China, Singapore, South Korea and Taiwan also decreased amid weak intermediate and final demand from these economies. Hong Kong's exports of services continued to moderate from a high growth path in earlier years, which culminated in a 0.6% decline in 2015, mainly due to the slowdown in inbound tourism. Imports of goods also fell back alongside weaker domestic and export-induced demand. In contrast, growth in imports of services accelerated due to strong travel interest among local residents. On a net basis, the overall trade surplus improved slightly in 2015, leading to a modest positive contribution to GDP growth.

**Chart 2** Domestic demand



Source: Census and Statistics Department.

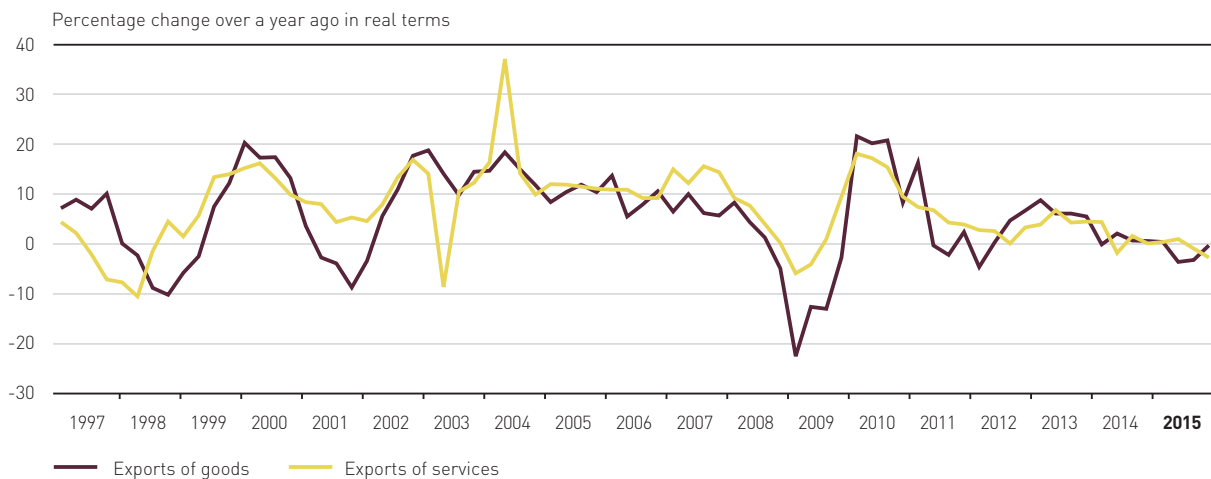


## Inflation

Underlying inflation eased further in 2015 amid moderated domestic cost pressures and reduced import price inflation. After netting out the effects of the Government's one-off relief measures, the underlying inflation rate dropped to 2.5% from 3.5% in 2014 (Chart 4). With subdued economic activity, labour cost pressures remained steady,

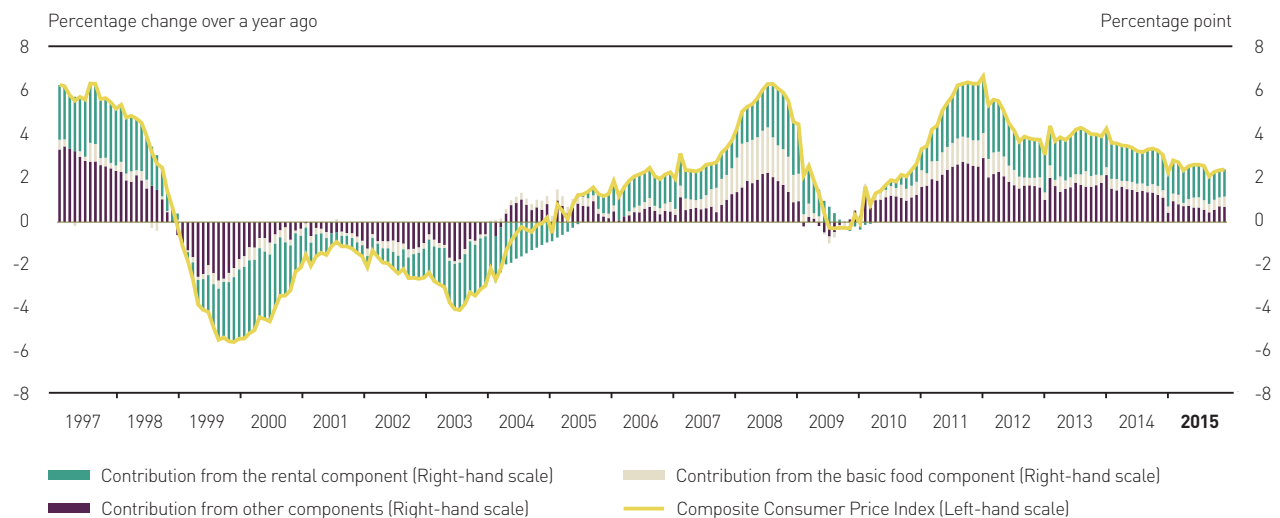
while commercial and industrial rental cost pressures eased, particularly in the second half. Thanks to softened global commodity prices and the strong Hong Kong dollar, import price pressures abated, while food inflation also stayed low. As the feed-through of fresh-letting housing rentals in earlier quarters had been moderate, the rental component of inflation remained contained.

**Chart 3 Exports of goods and services**



Source: Census and Statistics Department.

**Chart 4 Underlying consumer price inflation**



Source: Census and Statistics Department.

# Economic and Financial Environment

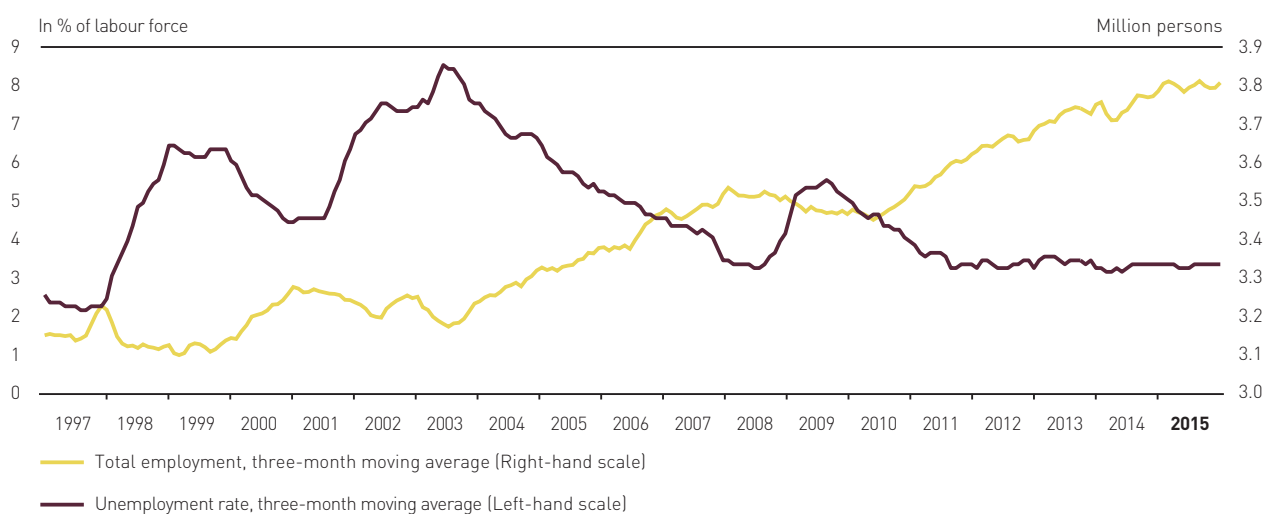
## Labour market

Labour market conditions remained stable in 2015. Labour demand held up, with the decline in employment in trade and tourism-related sectors being largely offset by the steady pace of hiring in other business sectors, resulting in an increase in total employment of 1.3% from a year earlier. With labour supply also picking up by 1.3%, the seasonally adjusted unemployment rate stayed at around 3.3% throughout the year (Chart 5). Given the still-tight labour market, labour earnings in nominal terms rose by 4.7% in the first three quarters of the year, compared with 4.3% in 2014. With inflationary pressures easing, real labour earnings increased by 1.3% in the first three quarters, compared with a decline of 0.1% in 2014.

## Stock market

The Hong Kong stock market experienced a volatile year due to drastic changes in the external environment. After a flat first quarter, the local stock market was buoyant in the second quarter amid the bullish sentiment in the Mainland A-share market and capital inflows. The Hang Seng Index surged to a seven-year high in April, with the Southbound Daily Quota under the Shanghai-Hong Kong Stock Connect being exhausted for the first time since its inception in November 2014 (Chart 6). However, the local market reversed course starting from late June, with the Hang Seng Index plunging 28% to a year-low in September amid the sell-offs in the Mainland A-share market and global stock markets, the heightened volatility in the global foreign exchange market, and weaknesses in international commodity prices. The Hong Kong stock market

**Chart 5** Labour market conditions



Source: Census and Statistics Department.

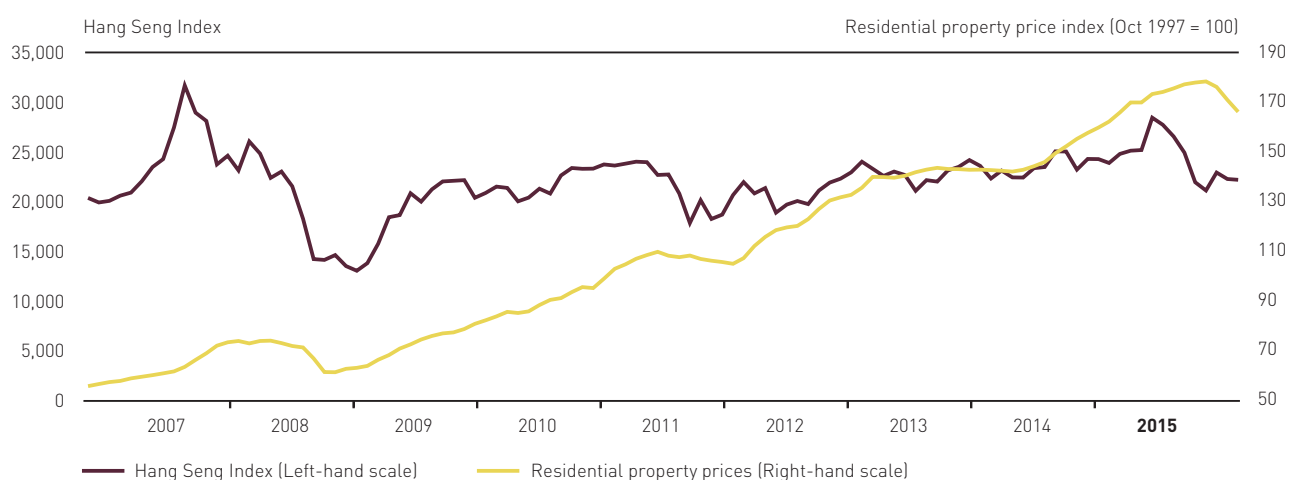
recovered some ground in the last quarter as global and Mainland financial markets stabilised. For 2015 as a whole, the Hang Seng Index recorded a decline of 7.2%, the worst performance since 2011, while the average daily turnover rose to HK\$105.6 billion from HK\$69.5 billion in 2014. Although fund-raising activities moderated in the second half, the overall equity funds raised from the local stock market increased to HK\$1,115.6 billion from HK\$942.7 billion a year earlier.

### Property market

Signs of consolidation emerged in the residential property market. After experiencing a buoyant period in early 2015, the residential property market softened following the announcement of the seventh round of prudential measures in February. With housing prices picking up

at a slower pace before declining in the last quarter, the cumulative increase in housing prices in 2015 was 2.5%, smaller than the 13.5% increase in 2014 (Chart 6). Meanwhile, the transaction volume decreased by 12.3% from a year ago to 55,982 units as trading activities in the secondary market fell noticeably in the second half. Speculative transactions, including confirmor transactions and short-term flipping trades, continued to stay low. Despite this, household affordability remained stretched, with the price-to-income ratio reaching 15.7 and the income-gearing ratio remaining far above its long-term average.<sup>1</sup> The commercial and industrial property markets were buoyant in the first half, but trading activities then softened, with both prices and rents registering declines in the last quarter. Rental yields remained broadly the same from a year earlier and stayed near their historical lows.

**Chart 6** Asset prices



Sources: Rating and Valuation Department and Hong Kong Exchanges and Clearing Limited.

<sup>1</sup> The price-to-income ratio measures the average price of a typical 50 square-metre flat relative to the median annual income of households living in private housing, from a potential home buyer's perspective. The income-gearing ratio compares the amount of mortgage payment for a typical flat of 50 square metres (under a 20-year mortgage scheme with a 70% loan-to-value ratio) to the median income of households living in private housing, from a potential home buyer's perspective. The income-gearing ratio is not the same as a borrower's actual debt-servicing ratio, which is subject to a maximum cap by the HKMA's prudential measures.

# Economic and Financial Environment

## OUTLOOK FOR THE ECONOMY

### Economic environment

Hong Kong's economic growth for 2016 is expected to remain soft. Private-sector analysts project the economy to expand at a slower average rate of 1.7% while the Government forecasts growth in the range of 1–2%. More specifically, the lacklustre global growth prospects, sustained weakness in inbound tourism, and the negative spillovers from turbulent global financial market conditions will continue to restrain the performance of Hong Kong's exports. Domestically, private consumption is anticipated to grow moderately, as labour market conditions will likely face some pressures amid weaker economic momentum, and local asset price adjustments may dent consumer confidence and induce negative wealth effects. Building and construction activities may hold up, but weak business sentiment and interest rate rises will weigh on private capital investment.

### Inflation and the labour market

Inflationary pressures are expected to remain contained in 2016. Import price pressures will likely stay soft, while domestic cost pressures are expected to be modest amid moderate economic growth momentum. The rental component of inflation may also ease due to diminishing pressures in fresh-letting housing rentals towards the end of 2015. Market consensus predicts the headline inflation rate at 2.5% in 2016, while the Government projects the underlying inflation rate at 2.0%. The labour market may also soften somewhat due to the slowdown in inbound tourism and continued sluggishness in the export sector. Private-sector analysts now expect the unemployment rate to increase to 3.5% in 2016.

### Uncertainties and risks

The economic outlook for 2016 is subject to a number of uncertainties and risks. In particular, the pace of further US interest rate rises, the global growth prospects and commodity price movements will continue to be the major sources of uncertainty. Any significant adverse developments could heighten volatilities in global financial markets and international capital flows, thereby tightening domestic monetary and financial conditions and casting a shadow over Hong Kong's growth prospects. The resulting impact of these external factors on the domestic economy will depend crucially on their impact on the property market through the wealth and balance-sheet effects. While the property market is facing increasing downside risks stemming from weakening sentiment in the global and domestic financial markets, the normalisation of US interest rates, and a narrowing housing demand-supply gap, more time is needed to establish whether the property market has entered a down-cycle. Although an abrupt adjustment in the property market could pose significant headwinds to the broader economy, the introduction of counter-cyclical macroprudential measures and other supervisory measures over the past few years has significantly enhanced the resilience of Hong Kong's banking system.

## PERFORMANCE OF THE BANKING SECTOR

The Hong Kong banking sector remained resilient during the year, notwithstanding a further divergence in the monetary policies of advanced economies and the build-up of vulnerabilities in emerging market economies. The liquidity positions of authorized institutions (AIs) continued to be sound, and locally incorporated AIs were well capitalised. The asset quality of retail banks deteriorated slightly, but stayed at a healthy level.

### Interest rate trends

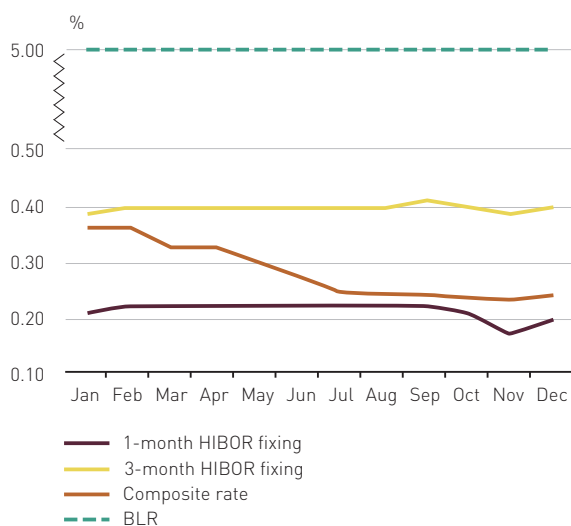
In line with the US dollar interest rates, Hong Kong dollar interbank interest rates were low throughout the year. The Hong Kong dollar funding cost of retail banks declined in the first half of the year as indicated by a downward trend

in the composite interest rate, and remained stable in the second half (Chart 7).

### Profitability trends

The profitability of the banking sector moderated in 2015. The aggregate pre-tax operating profits of retail banks' Hong Kong offices declined by 2.8%, as growth in fee and commission income (up 9.7%), foreign exchange and derivatives operation income (up 22.4%), and net interest income (up 1.3%) was offset by an 8.8% increase in operating expenses and a 76% increase in loan impairment charges. However, the post-tax profit of retail banks increased by 14.7%, mainly due to gains from disposals of strategic investments. The post-tax return on average assets of retail banks improved to 1.05% from 0.99% in 2014 (Chart 8).

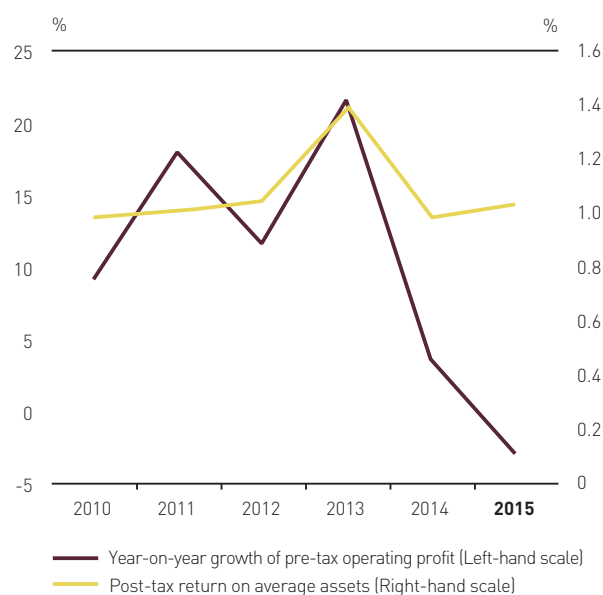
**Chart 7** HIBOR fixings, composite rate and best lending rate (BLR)



Notes:

- HIBOR fixings refer to the Hong Kong Dollar Interest Settlement Rates released by the Hong Kong Association of Banks and are monthly averages.
- BLR refers to the best lending rate quoted by the Hongkong and Shanghai Banking Corporation Limited (monthly averages).

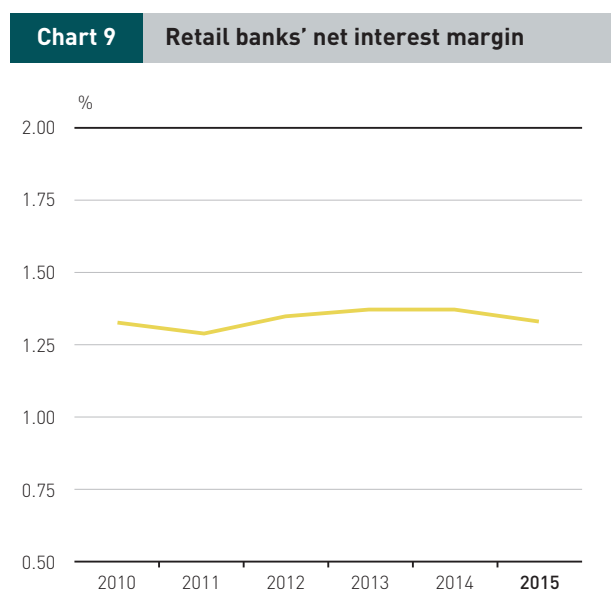
**Chart 8** Retail banks' performance



## Economic and Financial Environment

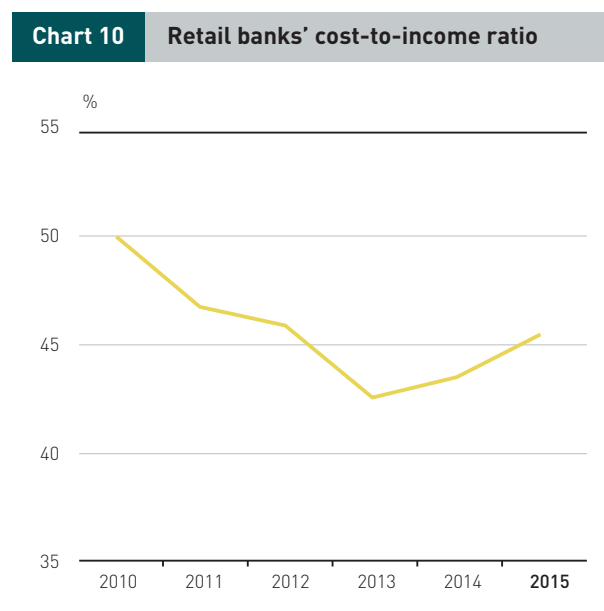
Retail banks' net interest margin narrowed to 1.32% from 1.40% in 2014 (Chart 9), due to a number of factors such as a decrease in interest return on renminbi-denominated assets and the investment of excess funds by banks in lower-yielding assets (for example, interbank placement as well as Exchange Fund Bills and Notes).

Driven by a growth in income from fees and commissions as well as from foreign exchange and derivatives operations, retail banks' non-interest income as a share of total operating income increased to 44.6% from 43.1% in 2014.



The operating costs of retail banks increased by 8.8%, partly caused by rising staff expenses. As the growth in operating costs outpaced that of operating income, the cost-to-income ratio increased to 45.4% in 2015 from 43.4% in 2014 (Chart 10).

Loan impairment charges rose to HK\$9.0 billion from HK\$5.1 billion in 2014. The loan impairment charges to average assets ratio remained at a low level of 0.08%.



## Asset quality

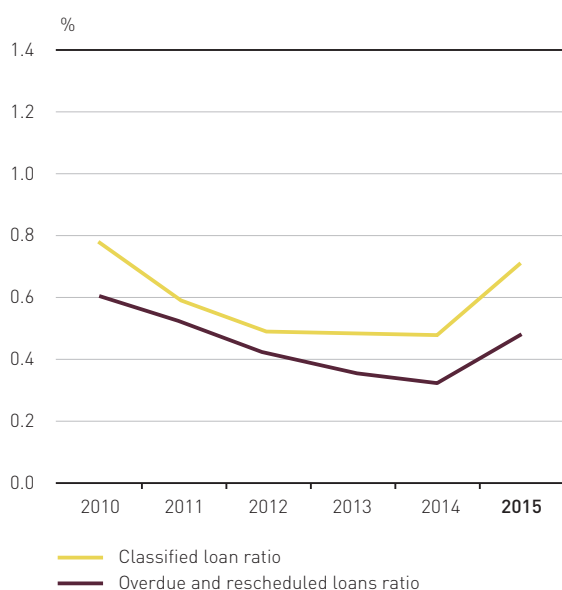
The banking industry's overall loan quality deteriorated slightly during the year, but remained sound with the classified loan ratio staying at a low level by historical standards. Retail banks' classified loan ratio<sup>2</sup> rose to 0.70% at the end of 2015 from 0.52% a year earlier. The overdue and rescheduled loans ratio stood at 0.45% at the end of the year (Chart 11).

The quality of banks' residential mortgage lending portfolios remained good, with the delinquency ratio staying at a low level of 0.03% at the end of 2015 (Chart 12).

The rescheduled loan ratio was close to 0%. The number of cases of residential mortgage loans in negative equity increased to 95 at the end of the year, compared with zero at the end of 2014. These cases were mainly related to staff housing loans which have higher loan-to-value ratios.

The delinquency ratio of credit card lending increased slightly to 0.25% at the end of 2015 from 0.20% a year earlier, but remained at a low level. The combined delinquent and rescheduled loans ratio also increased to 0.32% from 0.27% during the same period (Chart 12). The charge-off ratio edged down to 1.82% from 1.83% in 2014.

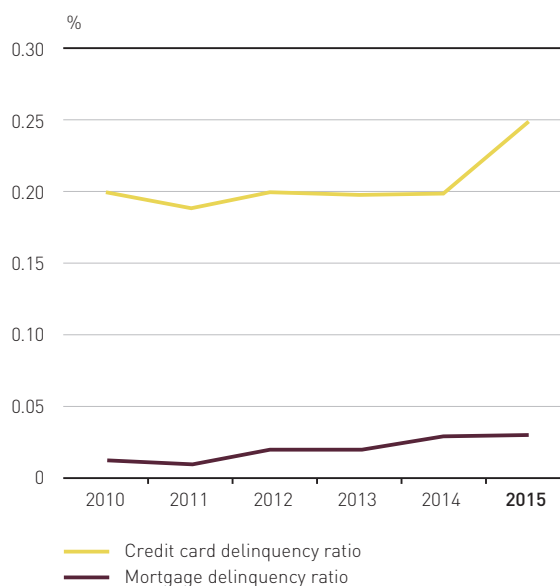
**Chart 11** Asset quality of retail banks



Note:

Figures prior to December 2015 cover retail banks' Hong Kong offices and overseas branches. Starting from December 2015, the coverage was expanded to include the banks' major overseas subsidiaries.

**Chart 12** Delinquency ratios of residential mortgages and credit card lending of banks



<sup>2</sup> This covers the Hong Kong offices and overseas branches of retail banks as well as their major overseas subsidiaries. Excluding the major overseas subsidiaries, the classified loan ratio of retail banks was 0.63% at the end of 2015, compared with 0.46% a year earlier.

# Economic and Financial Environment

## Balance sheet trends

Total loans and advances of retail banks grew by 3.2% in 2015, while total deposits rose by 4.9%. The overall loan-to-deposit ratio of retail banks decreased to 56.5% from 57.5% at the end of 2014. The Hong Kong dollar loan-to-deposit ratio also dropped to 71.5% from 74.6% during the same period (Chart 13).

Credit growth in the banking sector moderated to 3.5% in 2015 from 12.7% in 2014, as corporate customers became more conservative in borrowing amid the uncertain macro-economic outlook. While loans for use inside and outside Hong Kong increased by 6.3% and 2.8% respectively, trade finance declined by 16.3%.

The banking sector's Mainland-related lending<sup>3</sup> grew moderately to HK\$3,326 billion at the end of 2015 from HK\$3,224 billion a year ago.

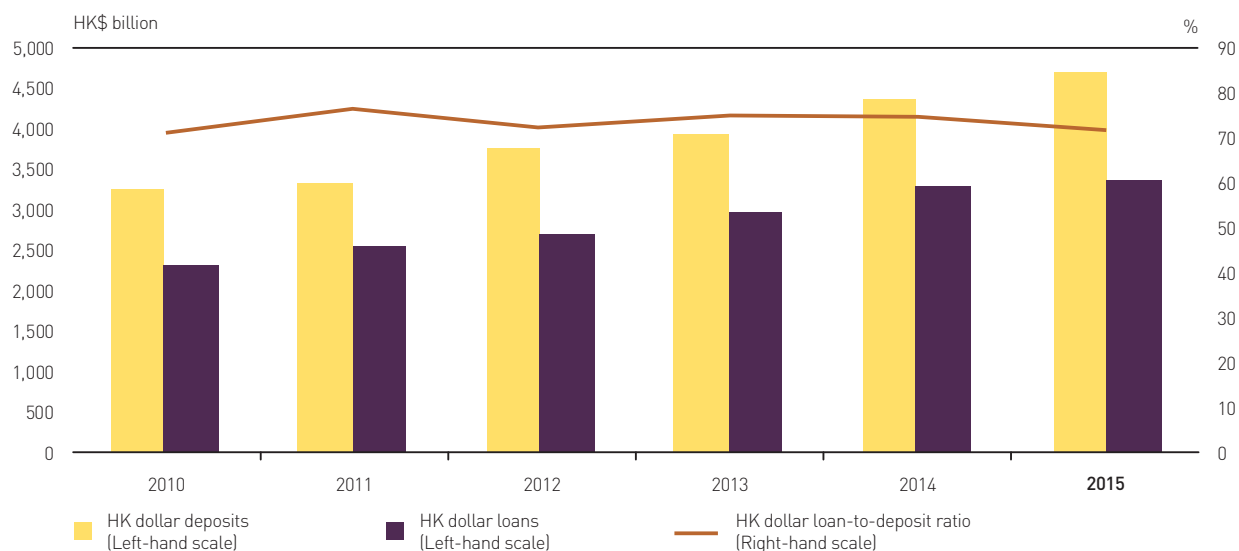
## Holdings of negotiable debt securities

Retail banks' holdings of negotiable debt instruments (NDIs), excluding negotiable certificates of deposit, increased by 15% in 2015. The share of total holdings of NDIs relative to total assets increased to 24% at the end of the year from 22% at the end of 2014. 55% of the holdings of NDIs were issued by governments (47% at end-2014), 31% by non-bank corporations (31% at end-2014), and 14% by banks (22% at end-2014) (Chart 14).

## Capital adequacy and liquidity

All locally incorporated AIs remained well capitalised. Their consolidated total capital ratio rose to 18.3% at the end of 2015 from 16.8% a year earlier (Chart 15). The increase was due to a faster growth in the capital base than in the amount of risk-weighted assets. During the same period, the Tier 1 capital ratio increased to 15.3% from 13.9%.

**Chart 13** Retail banks' Hong Kong dollar loans and deposits

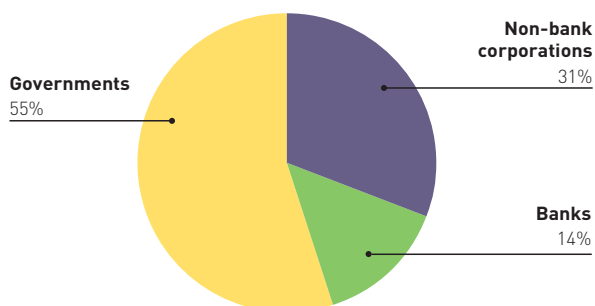


<sup>3</sup> Including loans booked in locally-incorporated banks' banking subsidiaries in Mainland China.

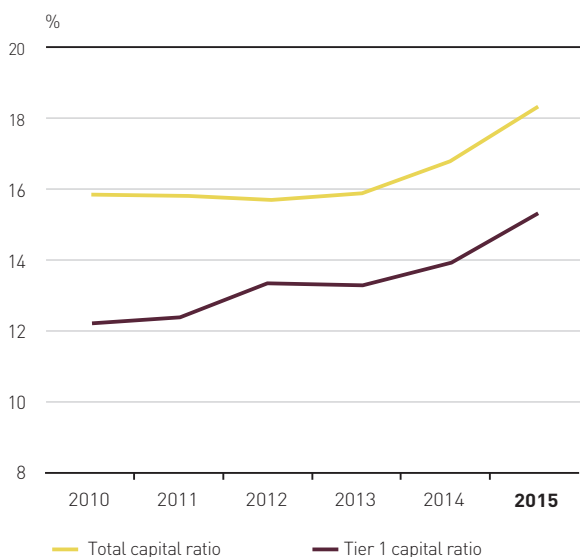


The Banking (Liquidity) Rules to implement the new liquidity regime under Basel III came into effect on 1 January 2015. Als in Hong Kong were categorised into category 1 and 2 institutions depending on their significance to the general stability of the local banking system. The liquidity position of category 1 institutions was measured by the Liquidity Coverage Ratio (LCR), whereas that of category 2 institutions was measured by the Liquidity Maintenance Ratio (LMR). In the final quarter of 2015, the average LCR of category 1 institutions was 142.9%, well above the statutory minimum requirement of 60% applicable for the year. The average LMR of category 2 institutions was 53.9%, also well above the statutory minimum requirement of 25% (Chart 16).

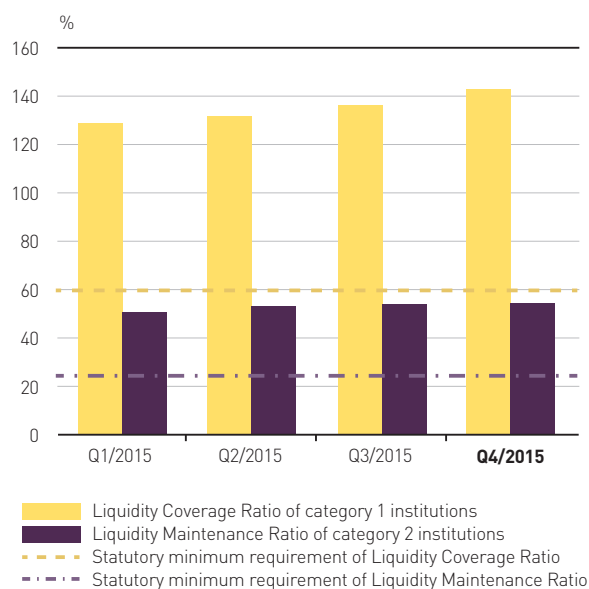
**Chart 14 Retail banks' holdings of negotiable debt instruments at the end of 2015 (issuer breakdown)**



**Chart 15 Consolidated capital adequacy ratio of locally incorporated Als**



**Chart 16 Liquidity ratios (quarterly average)**



## PROSPECTS FOR 2016

The continued divergence in the monetary policies of the major advanced economies has increased uncertainties in global financial markets. While the US Federal Reserve started to normalise interest rates in December 2015, the Bank of Japan lowered interest rates to negative levels in January 2016, and the European Central Bank announced a further lowering of interest rates and an expansion of its asset purchase programme in March 2016. Against this backdrop, capital flows are expected to remain volatile, with a potential negative spillover effect on the Hong Kong economy through financial and credit channels. At the same time, slower growth in both the Mainland and Hong Kong economies may create further pressure on the profitability and asset quality of banks. In light of these uncertainties, the HKMA has reminded banks of the need to step up their liquidity, interest rate and credit risk management to cope with possible challenges ahead.

# Monetary Stability

The Hong Kong dollar exchange rate remained broadly stable throughout 2015 despite turbulent financial market conditions and the US interest rate lift-off in December. The money market also continued to function normally with ample interbank liquidity. As the cornerstone of Hong Kong's monetary and financial stability over the past few decades, the Linked Exchange Rate System continued to be highly resilient to external shocks.

## OBJECTIVES

The overriding objective of Hong Kong's monetary policy is currency stability. This is defined as a stable external exchange value of Hong Kong's currency, in terms of its exchange rate in the foreign-exchange market against the US dollar, within a band of HK\$7.75 – 7.85 to US\$1. The structure of the monetary system is characterised by Currency Board arrangements, requiring the Monetary Base to be at least 100% backed by US dollar reserves held in the Exchange Fund, and changes in the Monetary Base to be 100% matched by corresponding changes in US dollar reserves.

The Monetary Base (Table 1) comprises

- Certificates of Indebtedness, which provide full backing to the banknotes issued by the three note-issuing banks
- Government-issued notes and coins in circulation
- the Aggregate Balance, which is the sum of clearing account balances of banks kept with the HKMA
- Exchange Fund Bills and Notes issued by the HKMA on behalf of the Government.

The stability of the Hong Kong dollar exchange rate is maintained through an automatic interest rate adjustment mechanism and the firm commitment by the HKMA to honour the Convertibility Undertakings (CUs). When the demand for Hong Kong dollars is greater than the supply and the market exchange rate strengthens to the strong-side CU of HK\$7.75 to one US dollar, the HKMA stands ready to sell Hong Kong dollars to banks for US dollars. The Aggregate Balance will then expand to push down Hong Kong dollar interest rates, creating monetary conditions that move the Hong Kong dollar away from the strong-side limit to within the Convertibility Zone of 7.75 to 7.85. Conversely, if the supply of Hong Kong dollars is greater than demand and the market exchange rate weakens to the weak-side CU of HK\$7.85 to one US dollar, the HKMA will buy Hong Kong dollars from banks. The Aggregate Balance will then contract to drive Hong Kong dollar interest rates up, pushing the Hong Kong dollar away from the weak-side limit to stay within the Convertibility Zone.

**Table 1** Monetary Base

HK\$ million	31 December 2015	31 December 2014
Certificates of Indebtedness <sup>1</sup>	360,165	342,165
Government-issued currency notes and coins in circulation <sup>1</sup>	11,408	11,092
Balance of the banking system	391,343	239,183
Exchange Fund Bills and Notes (EFBN) issued <sup>2</sup>	829,791	753,546
<b>TOTAL</b>	<b>1,592,707</b>	<b>1,345,986</b>

<sup>1</sup> The Certificates of Indebtedness and the government-issued currency notes and coins in circulation shown here are stated at Hong Kong dollar face values. The corresponding items shown in the balance sheet of the Exchange Fund in this Annual Report are in Hong Kong dollars equivalent to the US dollar amounts required for their redemption at the prevailing exchange rates on the balance sheet date. This arrangement is in accordance with the accounting principles generally accepted in Hong Kong.

<sup>2</sup> The amount of EFBN shown here is different from that in the balance sheet of the Exchange Fund in this Annual Report. In accordance with the accounting principles generally accepted in Hong Kong, the EFBN held by the HKMA on behalf of the Exchange Fund in relation to its trading of the EFBN in the secondary market are offset against the EFBN issued, and the net amount is recorded in the balance sheet.

# Monetary Stability

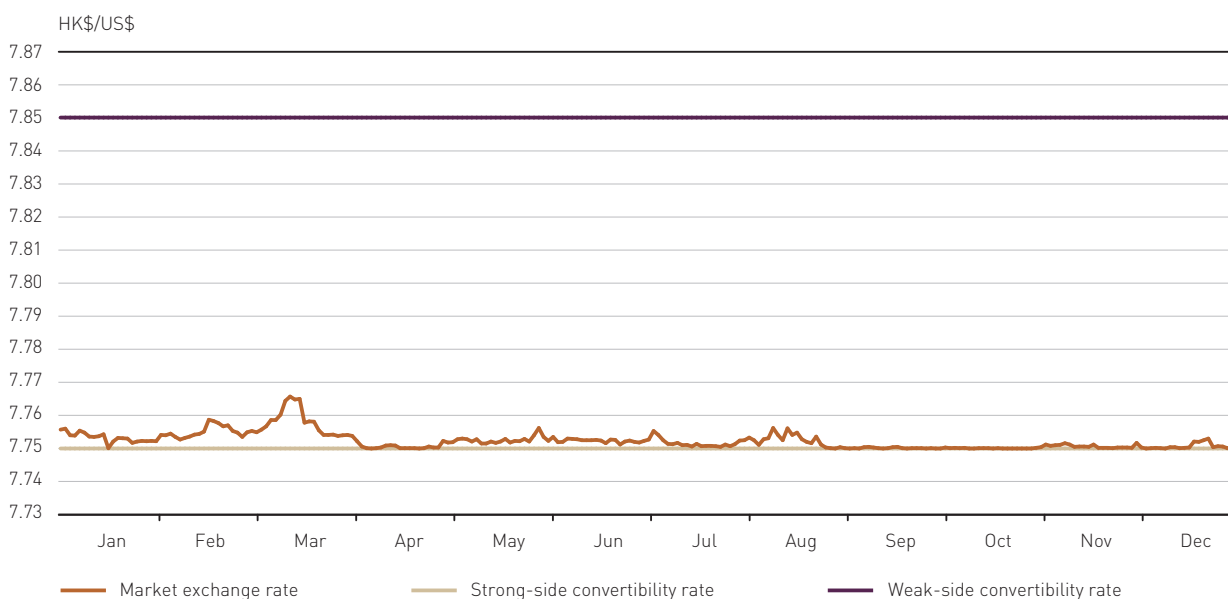
## REVIEW OF 2015

### Exchange-rate stability

The Hong Kong dollar exchange rate remained broadly stable in 2015, trading within a narrow range of 7.7500 to 7.7657 against the US dollar (Chart 1). In the early part of 2015, the Hong Kong dollar was under slight weakening pressures amid market concerns about the US interest rate lift-off. However, the Hong Kong dollar exchange rate strengthened close to 7.75 during the second quarter, with the strong-side CU being triggered repeatedly in April mainly due to a surge in equity-related demand for the Hong Kong dollar amid buoyant stock market activities. Moving into the second half of the year, the Hong Kong dollar exchange rate continued to hover

close to 7.75 against the US dollar in August, despite the notable sell-off in Hong Kong and Mainland's equity markets, and increased volatilities in the global currency markets (including the renminbi). Driven by conversions of the offshore renminbi into the Hong Kong dollar, the strong-side CU was triggered again in September and October. While the US Federal Open Market Committee (FOMC) raised the target range for the Federal Funds Rate by 25 basis points in mid-December, the Hong Kong dollar continued to move within a tight range against the US dollar without notable outflow pressures. Overall, the Hong Kong dollar exchange market operated in an orderly manner throughout 2015, despite the turbulent global financial market conditions.

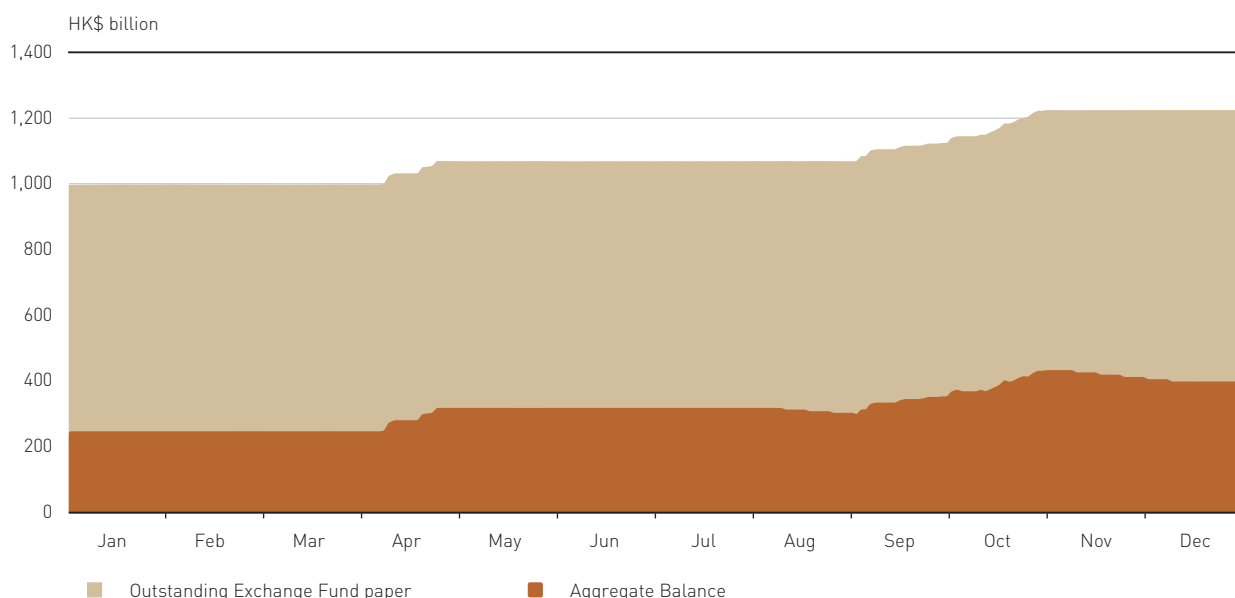
Chart 1 Market exchange rate in 2015



As the strong-side CU was repeatedly triggered in April, September and October, the HKMA passively purchased a total of US\$29.3 billion from banks in exchange for HK\$227.2 billion, in accordance with the Currency Board principles. This led to a corresponding expansion in the Aggregate Balance, with part of the expansion being offset by additional issuance of Exchange Fund Bills in response to banks' strong demand for liquidity management

(Chart 2). The additional issuance of Exchange Fund paper is consistent with Currency Board principles, as it represents a change in the composition of the Monetary Base with the Monetary Base fully backed by foreign exchange reserves. The total of Aggregate Balance and outstanding Exchange Fund Bills and Notes increased to HK\$1,221.0 billion at the end of 2015 from HK\$992.5 billion a year earlier.

**Chart 2** Aggregate Balance and outstanding Exchange Fund paper in 2015



### Money market

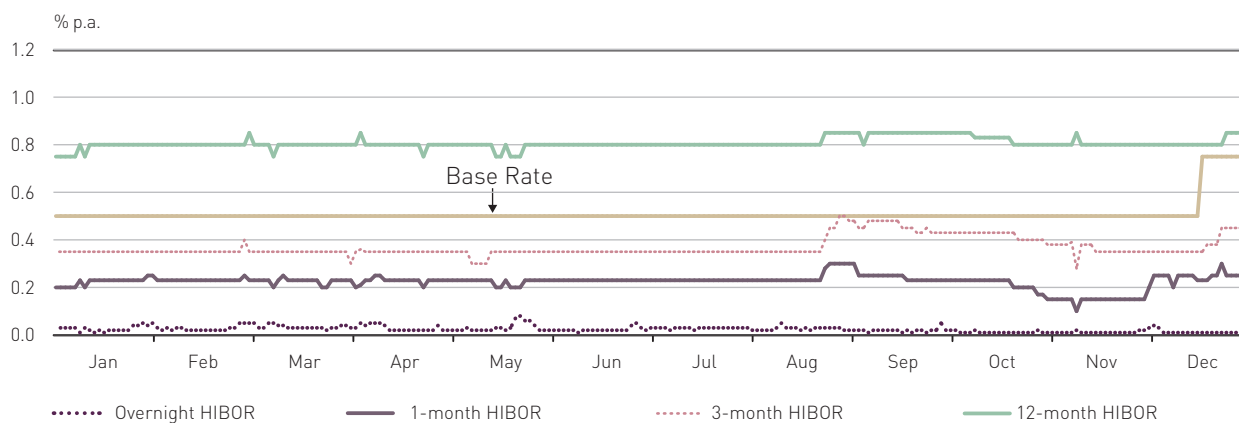
With ample liquidity in the banking system, Hong Kong dollar interbank interest rates remained low throughout 2015. As the target range for the US Federal Funds Rate was adjusted upwards from 0–0.25% to 0.25–0.5% on 16 December (US time), the Base Rate was also adjusted upwards from 0.5% to 0.75% on 17 December according to the pre-set formula.<sup>1</sup> For 2015 as a whole, interbank interest rates for tenors from overnight to three months stayed below the Base Rate (Chart 3), with moderate

fluctuations driven by banks' seasonal liquidity needs and tightened liquidity amid volatile financial market conditions in August. Broadly tracking the spreads between the Hong Kong Interbank Offered Rate (HIBOR) and the London Interbank Offered Rate (LIBOR), the Hong Kong dollar forward points turned to notable premiums in August amid tightened market liquidity, and then subsequently dipped into discounts towards the end of the year due to the broad-based increases in the US dollar interest rates (Chart 4). Overall, the money market continued to function normally. Discount Window borrowing was not active, amounting to only HK\$2.8 billion in 2015.

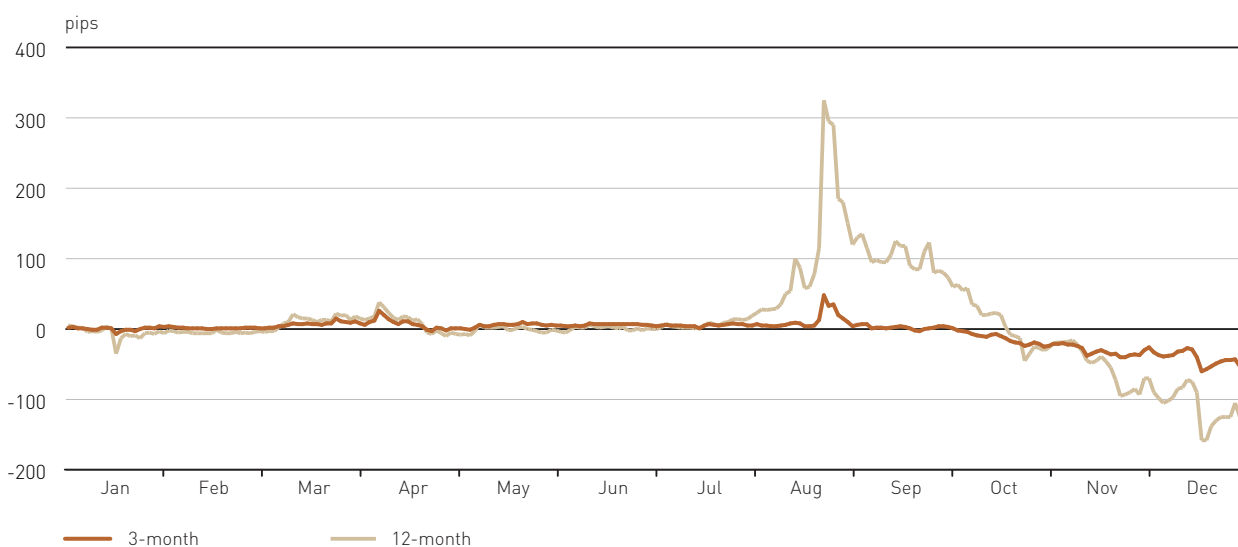
<sup>1</sup> In accordance with the revised Base Rate formula announced on 26 March 2009, the Base Rate is currently set at either 50 basis points above the lower bound of the prevailing target range for the US Federal Funds Rate or the average of the five-day moving averages of the overnight and one-month HIBORs, whichever is the higher.

# Monetary Stability

**Chart 3 Hong Kong dollar interbank interest rates in 2015**



**Chart 4 Hong Kong dollar forward points in 2015**



## Linked Exchange Rate System

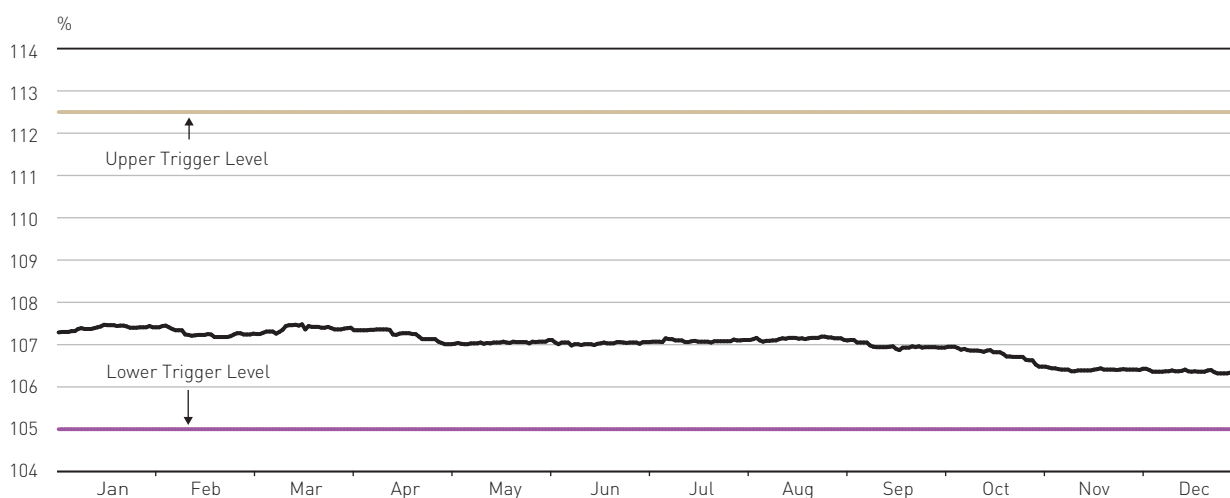
Since its establishment in 1983, the Linked Exchange Rate System (LERS) has continued to function smoothly and contributed significantly to Hong Kong’s monetary and financial stability over the past few decades. Given Hong Kong’s small and open economy and its role as an international financial hub, the LERS remains the most suitable exchange rate regime for Hong Kong. The Hong Kong SAR Government is firmly committed to maintaining the LERS. Indeed, stability in the foreign exchange and money markets further reinforces the credibility of the

Government’s commitment, and the public continues to have strong confidence in the Hong Kong dollar as a means of payment and storage of value. In its 2015 Article IV consultation with Hong Kong, the International Monetary Fund (IMF) continued to endorse the LERS as the best monetary arrangement for Hong Kong, citing Hong Kong’s robust institutional, legal and policy framework, ample fiscal reserves, flexible markets, and sound financial system as key factors supporting the smooth functioning of the LERS.

Given that a robust banking system is crucial to the normal functioning of the LERS, the HKMA continued to closely monitor banks' management of credit, liquidity and interest rate risks and stress-test results, and stepped up its supervisory efforts on banks' corporate and property-related lending to enhance the resilience of the banking sector. In view of the rise in US interest rates, the HKMA reminded the public to make necessary preparations in managing risks, noting that any triggering of the weak-side CU and outflow of Hong Kong dollars are a natural and necessary step in the process of the normalisation of the Hong Kong dollar interest rates.

To improve the transparency of the Currency Board Account, a specific portion of Exchange Fund assets has been allocated to back the Monetary Base since October 1998. The Backing Ratio (defined as the Backing Assets divided by the Monetary Base) moved within a narrow range of 106.3–107.5% during 2015, without touching the Upper or Lower Trigger Level. The ratio closed at 106.3% on 31 December (Chart 5). Under the LERS, while specific Exchange Fund assets have been designated for the Backing Portfolio, all Exchange Fund assets are available to support the Hong Kong dollar exchange rate. The large amount of financial resources of the Fund provides a powerful backstop to protect Hong Kong's monetary and financial stability in the event of abrupt shocks.

**Chart 5** Daily movement of the Backing Ratio in 2015



### Other activities

The Exchange Fund Advisory Committee (EFAC) Currency Board Sub-Committee monitors and reviews issues relevant to monetary and financial stability in Hong Kong. In 2015, the Sub-Committee considered issues including the supply of international US dollar loans by global banks, the international use of macro-prudential measures, the implications of US interest rate hikes for Hong Kong's

property market, the formula for the determination of the Base Rate, macroeconomic implications of the Hong Kong dollar real effective exchange rate rise, and the sovereign risk of emerging market economies. Records of the Sub-Committee's discussions and the reports on Currency Board operations submitted to the Sub-Committee are published on the HKMA website.

# Monetary Stability

The Hong Kong Institute for Monetary Research (HKIMR) continued to sponsor research in the fields of monetary policy, banking and finance. In 2015, the Institute hosted 16 research fellows and published 27 working papers.

The Institute organised five international conferences and workshops. The main ones included:

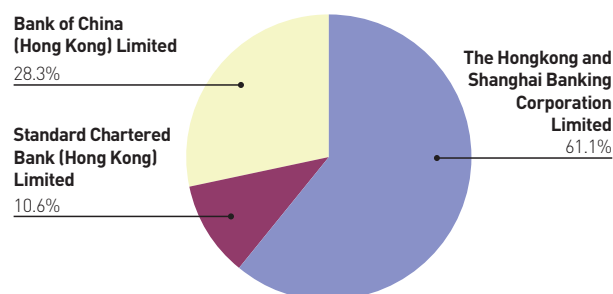
- The Sixth Annual International Conference on the Chinese Economy in January, under the title “Leverage and Financial System Efficiency and Stability: Chinese and International Experiences”. 11 high quality research papers were presented at the conference, covering an extensive range of issues such as corporate leverage in China, China’s credit boom and business cycle, banking competition and financial stability, as well as banking regulation and credit supply.
- The HKIMR and the University of Hong Kong joint conference entitled “HKIMR-HKU International Conference on Finance, Institutions and Economic Growth” in May. The conference covered many different economic issues, including banking and monetary policy, international financing and cross border mergers and acquisitions, design of financial regulation, as well as macroeconomic environment and capital markets.
- The HKIMR, the Board of Governors of the Federal Reserve System, the European Central Bank and the Federal Reserve Bank of Dallas joint conference in October on “Diverging Monetary Policies, Global Capital Flows and Financial Stability”. The conference examined a wide range of issues including the relationship between monetary policies, international capital flows and exchange rates, divergent monetary policies and their implications for global financial stability, spillover of major central bank policies to other parts of the world, and the costs and benefits of global policy co-ordination.

The Institute also hosted its 13th HKIMR Summer Workshop in August, and the 13th HKIMR Conference on the Mainland Economy in September, addressing issues on fiscal reform and local government financing in Mainland China. The conferences and workshops were attended by participants from academia, the financial services industry and global central banks. In addition, the Institute held 24 public seminars during the year covering a broad range of economic, monetary and financial issues.

## Notes and coins

At the end of 2015, the total value of banknotes in circulation was HK\$360.2 billion, an increase of 5.3% from a year earlier (Charts 6, 7 and 8). The total value of government-issued notes and coins in circulation amounted to HK\$11.2 billion, up 2.9% (Charts 9 and 10). The value of government-issued HK\$10 notes in circulation was HK\$4.0 billion, of which 85% were polymer notes.

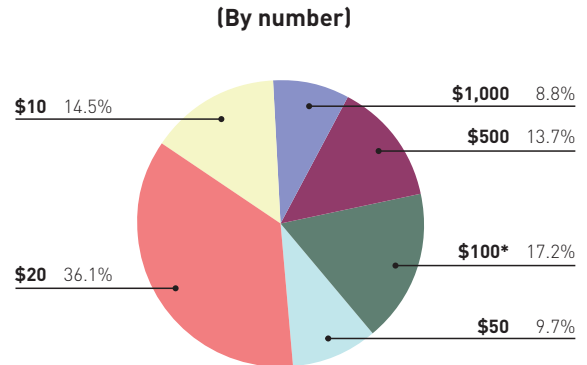
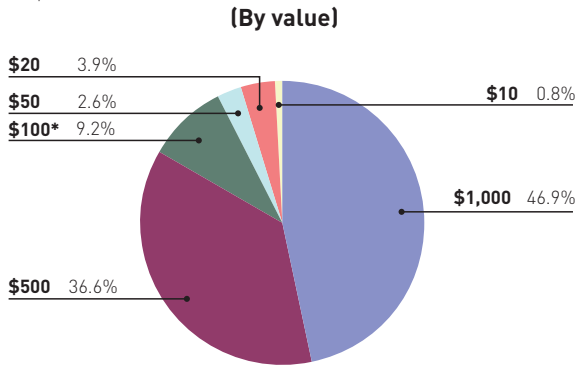
**Chart 6 Banknotes in circulation by note-issuing banks at the end of 2015**





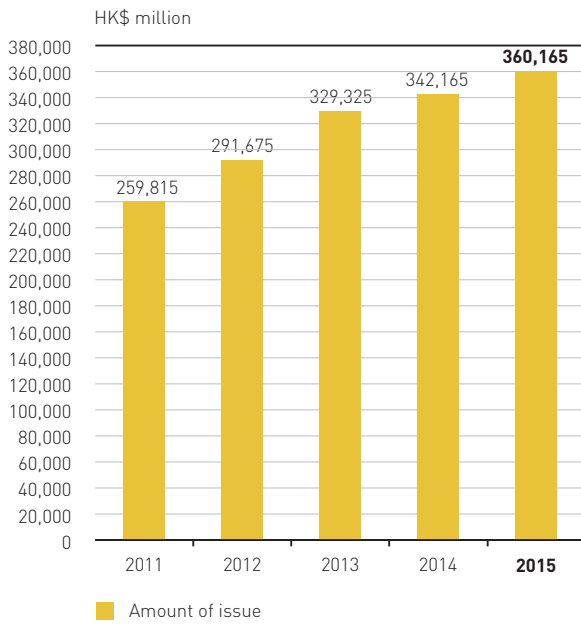
**Chart 7** Distribution of banknotes in circulation at the end of 2015

HK\$

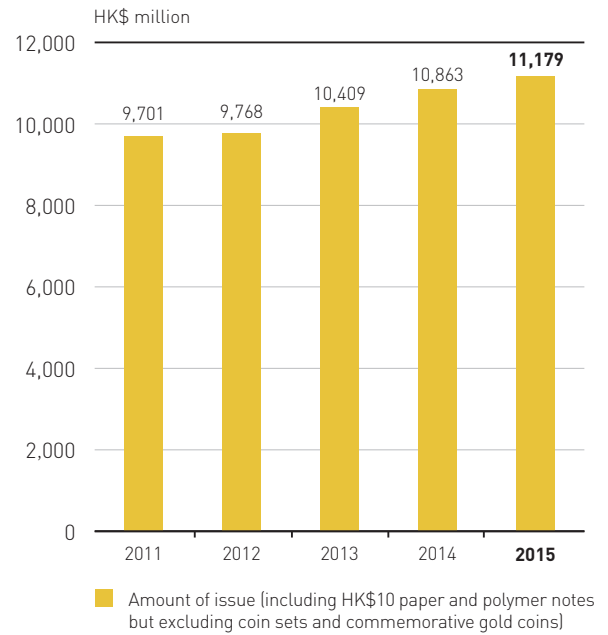


\* Includes 0.1 percentage point contributed by HK\$150 banknotes.

**Chart 8** Banknotes in circulation at the end of 2015

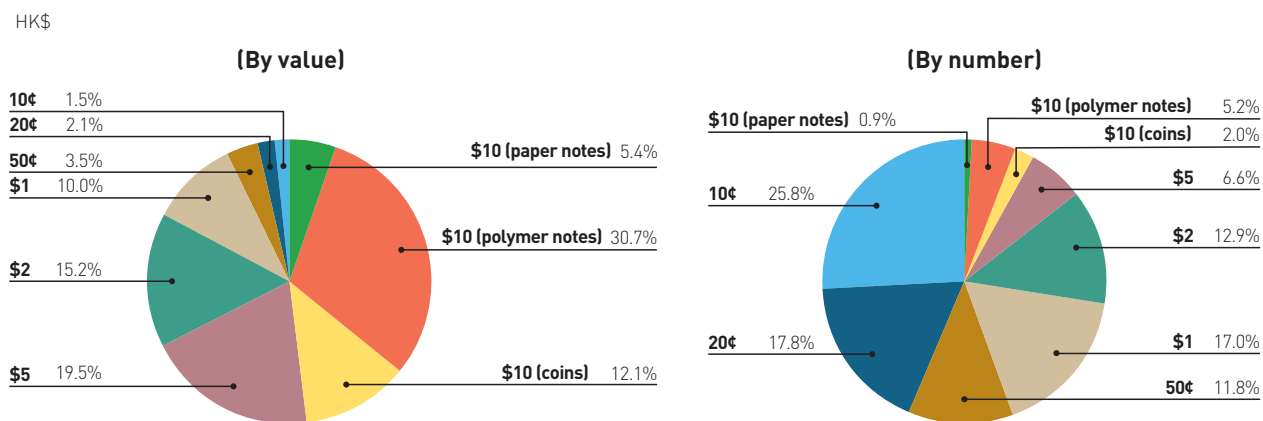


**Chart 9** Government-issued notes and coins in circulation at the end of 2015



# Monetary Stability

**Chart 10 Government-issued notes and coins in circulation at the end of 2015**



## Hong Kong banknotes

During the year, the HKMA announced a plan to launch a new series of banknotes. While the latest series, which was launched in 2010, remains robust, it is important to update the banknotes with the latest security features to stay ahead of counterfeiters.

In addition, the HKMA continued its public education programme to promote awareness of the designs and security features of Hong Kong's banknotes. In all, 26 seminars on how to authenticate banknotes were provided during the year for over 5,000 participants, including bank tellers, retailers and students.

## Coin collection programme

The Coin Collection Programme, launched in October 2014, continued to be well-received by the public. It is the world's first structured coin collection scheme using two mobile trucks and was awarded the "Best New Coin Innovation" by the International Association of Currency Affairs at the annual Coin Conference in Madrid in October. The award recognised the programme's innovative and

green approach to the collection of coins which are re-circulated to meet public demand, making circulation more efficient and reducing the need for minting new coins.

All 18 districts in Hong Kong are covered on rotation by the free service of the two coin carts. Each cart is equipped with two high-speed coin counting machines and an electric wheelchair lift. Staff are on hand to provide assistance and users can choose to exchange their spare coins for banknotes or adding value to their Octopus cards. A Community Chest donation box is also placed inside each vehicle. The two-year pilot Coin Collection Programme runs until September 2016, when it will be subject to review.

Since its inception to the end of 2015, the two coin carts have served 150,000 people and collected 129 million coins with a total face value of HK\$140 million. Further details of the programme and up-to-date information, including the service schedule, are available on a designated page of the HKMA website at [coincollection.hkma.gov.hk](http://coincollection.hkma.gov.hk).

## Exchange Fund Bills and Notes

The strong-side CU was triggered multiple times in April, September and October, leading to an expansion in the Aggregate Balance. With short-dated Exchange Fund Bills trading at very low yields amid abundant liquidity in the interbank market, the HKMA issued a total of HK\$75 billion worth of additional Exchange Fund Bills between August and December to meet market demand. The additional issuance resulted in a corresponding decrease in the Aggregate Balance. At the end of 2015, the amount of outstanding Exchange Fund paper stood at HK\$828.4 billion (Table 2).

## PLANS FOR 2016 AND BEYOND

The global macro-financial environment is expected to be challenging in 2016, given the US interest rate normalisation, subdued global economic growth and high volatility in international financial markets. Fund flows are likely to be more volatile. The US interest rate lift-off last December kick-started the process of interest rate normalisation. Since then, there have been some outflows of funds from Hong Kong, driving up Hong Kong dollar

interbank rates and narrowing the spreads between the Hong Kong dollar and US dollar interest rates. However, since the pace of further US interest rate rises is expected to be gradual and given the sizable Hong Kong dollar Monetary Base, any adjustment in Hong Kong dollar interbank interest rates should not be too rapid. With expected outflow of funds from Hong Kong, the Hong Kong dollar will eventually weaken to 7.85, the weak-side CU. This is inevitable in the process of normalisation of the Hong Kong dollar interest rates, and reflects the design and normal operations of the LERS.

The HKMA will continue to closely monitor risks and vulnerabilities in the domestic and external environment and stands ready to deploy appropriate measures, where necessary, to maintain monetary and financial stability in Hong Kong. Research programmes in 2016 will study issues affecting the Hong Kong economy and assess their potential impact. The EFAC Currency Board Sub-Committee will continue to examine issues relevant to Hong Kong's monetary and financial stability, review the technical aspects of the Currency Board arrangements and, where appropriate, recommend measures to strengthen them.

**Table 2** Outstanding issues of Exchange Fund Bills and Notes

HK\$ million	2015	2014
Exchange Fund Bills (by original maturity)		
28 days	<b>3,000</b>	–
91 days	<b>447,621</b>	400,730
182 days	<b>277,000</b>	241,000
364 days	<b>42,200</b>	42,200
Sub-total	<b>769,821</b>	683,930
Exchange Fund Notes (by remaining tenor)		
1 year or below	<b>15,200</b>	14,900
Over 1 year and up to 3 years	<b>20,800</b>	25,600
Over 3 years and up to 5 years	<b>7,200</b>	11,200
Over 5 years and up to 10 years	<b>10,600</b>	11,000
Over 10 years	<b>4,800</b>	6,000
Sub-total	<b>58,600</b>	68,700
<b>Total</b>	<b>828,421</b>	752,630

# Banking Stability

The HKMA focused its supervisory efforts on authorized institutions' risk governance, including credit and liquidity risk management systems, anti-money laundering and counter-terrorist financing controls, and selling practices for investment and insurance products. With the build-up of systemic risks, the HKMA announced a 0.625% jurisdictional Countercyclical Capital Buffer for Hong Kong from 1 January 2016 (and 1.25% from 1 January 2017). Five authorized institutions were designated as Domestic Systemically Important Banks which will be subject to a Higher Loss Absorbency capital buffer. Significant progress was made on reforms for recovery and resolution with the introduction of the Financial Institutions (Resolution) Bill into the Legislative Council. The HKMA also stepped up its work with the banking industry on enhancing access to basic banking services, consumer education, and the skills and knowledge development of bank directors and financial practitioners.

## REVIEW OF 2015

### Overview

Amid signs of a divergence in monetary policy stances among the major developed economies, emerging markets faced a higher risk of capital outflows and slower economic growth in 2015. In order to maintain the resilience of the banking sector against a possible abrupt deterioration in the macroeconomic environment, the HKMA continued to closely monitor the effectiveness of authorized institutions' (AIs) risk governance and their systems for management of credit and liquidity risks.

### Operational supervision

In 2015, the HKMA continued to adopt the supervisory approach where regular on-site examinations were supplemented by an increased number of thematic reviews. Thematic reviews are in-depth off-site reviews focusing on particular risk areas or specific activities of groups of selected AIs. This approach has allowed the HKMA to prioritise its supervisory resources to focus on emerging and more significant risks of AIs.

During the year, the HKMA performed a total of 193 on-site examinations. More in-depth thematic on-site examinations on credit risk management and asset quality were conducted, in view of the emerging signs of deterioration in the asset quality of AIs' loan portfolio. The HKMA increased the number of examinations on treasury related activities given market uncertainty amid the divergence of monetary policies in major advanced economies. On-site examinations were also conducted on Mainland-related business, stress testing and liquidity risk management, operational and technology risk management, capital planning, anti-money laundering and counter-terrorist financing (AML/CFT) controls and internal ratings-based (IRB) models of AIs. AIs' activities in securities, investment products, insurance and Mandatory Provident Fund (MPF)-related businesses were also subject to on-site examinations by specialist teams during the year.

Furthermore, a total of 152 thematic off-site reviews were conducted covering similar areas as the thematic on-site examinations. Table 1 contains details of the operational supervision work.

In 2015, 196 off-site reviews were conducted to assess AIs' corporate governance, financial position and business operations. Supervisory attention focused on risk governance, capital planning, corporate sector credit and monitoring of implementation of Basel III standards. The supervisory teams maintained frequent contact with the boards of directors and external auditors of selected AIs. 20 tripartite meetings were held with the senior management and external auditors of AIs, while 23 meetings were held with the full board or board-level committees of selected AIs.

The Banking Supervision Review Committee considered four cases, all concerning the authorization of AIs.

To better utilise its supervisory resources to deal with competing priorities, the HKMA continued to invoke powers under section 59(2) of the Banking Ordinance to require AIs to appoint external auditors to follow up on potentially material supervisory issues. The HKMA commissioned six reports under this provision in 2015. Two of the reports covered AML/CFT controls and another two of the reports covered private banking business, while the remaining were related to areas including securities related activities and loans classification system.

# Banking Stability

No AI breached the requirements of the Banking Ordinance relating to capital adequacy or liquidity ratio in 2015. There were 84 breaches under various sections of the Ordinance, but none affected the interests of depositors and they were rectified promptly by the AIs.

**Table 1** Operational supervision

		2015	2014
1	On-site examinations	193	216
	Reviews of the internal ratings-based (IRB) approach	2	3
	Capital planning	6	3
	Market risk, counterparty credit risk and treasury activities	23	12
	Stress testing and liquidity risk management	2	13
	Securities, investment products, insurance and MPF-related businesses	22	20
	Deposit Protection Scheme-related representation	12	13
	Code of Banking Practice/Consumer Protection	1	3
	AML/CFT controls	21	19
	IT, Internet banking and operational risk	27	45
	Mainland-related business and renminbi business	22	61
	Credit controls, credit risk management and asset quality	49	16
	Overseas examinations	6	8
2	Thematic reviews	152	127
	Reviews of the IRB approach and stress testing	7	12
	Treasury activities	-	36
	AML/CFT controls	22	15
	IT, Internet banking and operational risk	45	29
	Credit risk management and controls	69	35
	New product reviews	6	-
	Selling of investment products	3	-
3	Off-site reviews and prudential interviews	196	197
4	Tripartite meetings	20	22
5	Meetings with board of directors or board-level committees of AIs	23	15
6	Approval of applications to become controllers, directors, chief executives or alternate chief executives of AIs	291	299
7	Reports commissioned under section 59(2) of the Banking Ordinance	6	6
8	Cases considered by the Banking Supervision Review Committee	4	5
9	AIs subject to the exercise of powers under section 52 of the Banking Ordinance	1	1
10	Reports commissioned under section 21(2)(b) of the Anti-Money Laundering and Counter-Terrorist Financing (Financial Institutions) Ordinance	1	-

## Powers under section 52 of the Banking Ordinance

Melli Bank Plc continues to be subject to the exercise of powers under section 52 of the Banking Ordinance. The directions imposed by the Monetary Authority on 25 June 2008 under section 52(1)(A) of the Banking Ordinance on the affairs, business and property of the Hong Kong Branch of Melli Bank Plc remained in force during the year. The HKMA will continue to communicate regularly with the relevant authorities to monitor developments related to the branch and its head office in the UK, and will keep in view the supervisory measures taken to protect the interests of the AI's depositors.

## CAMEL rating review

The CAMEL Approval Committee reviewed and determined the composite CAMEL ratings<sup>1</sup> of AIs. The AIs were notified of the ratings and given the opportunity to request a review. There was no request for a review during the year.

## Specialised supervisory work

### Supervision of operational and technology risks

The HKMA continued to issue new or updated guidance on operational and technology risk management in the light of emerging risks and industry developments. In particular, the HKMA completed the revision of the Supervisory Policy Manual (SPM) module in relation to electronic banking (e-banking), which allows AIs more flexibility in offering new e-banking services. In addition, a circular was issued on cyber security, reiterating the importance for the boards and senior management of AIs to have oversight of effective cyber security risk management. The HKMA also published periodic issues of its "Operational Incidents Watch" highlighting the modus operandi of selected fraud cases or operational incidents and the control weaknesses identified.

<sup>1</sup> Comprising the Capital adequacy, Asset quality, Management, Earnings and Liquidity components.

The HKMA conducted risk-based thematic on-site and off-site supervisory reviews to evaluate selected AIs' operational and technology risk management at the enterprise level or in specific business lines. These covered selected areas in relation to AIs' operational risk management framework, cyber security risk management, controls for guarding against rogue trading activities, oversight of important outsourcing service providers, fraud risk management and technology controls for anti-money laundering. These supervisory reviews were supplemented by the annual independent compliance exercises covering operational risk management framework, technology risk management (including protection of customer data) and business continuity planning, where selected AIs were required to appoint independent and qualified assessors to examine the adequacy of their relevant controls and then rectify the weaknesses identified. The HKMA also identified and analysed the trend and key supervisory focus of AIs' operational and technology risks, with particular reference to the AIs that play an important role in the stability and effective functioning of Hong Kong's monetary and banking systems.

The HKMA monitored the final phase of the banking industry's implementation of the chip-based ATM technology through which AIs completed the card replacement process of pure credit cards by the end of 2015. The HKMA also required card issuing AIs to implement authentication controls to further improve the security over "card-not-present" credit card transactions. Separately, after receiving reports that the names of cardholders stored in some contactless credit cards could be accessed stealthily, the HKMA required the AIs concerned to take prompt action to notify and protect the affected cardholders. The HKMA devoted resources to publicise and explain the scale and implications of the incident to address public concern and to monitor AIs' remedial efforts, including the prompt replacement of affected cards.

The HKMA collaborated with the industry and other stakeholders on a number of initiatives, including public awareness programme on e-banking security precautions, establishing a platform for sharing cyber security intelligence, and providing support and advice to a crisis management exercise organised by the Hong Kong Financial Services Business Continuity Management Forum that involved AIs and other financial firms.

### ***Supervision of wealth management and MPF-related businesses***

The HKMA co-operated closely with other financial regulators in Hong Kong in providing guidance and supervising AIs' selling of securities, investment products, insurance products and MPF schemes. Regular contact was maintained with the regulators through bilateral and multilateral meetings, as well as under the auspices of the Council of Financial Regulators. These meetings covered various issues involving financial groups or regulated entities with close business relationships across different sectors in the financial services industry to ensure more co-ordinated and effective supervisory action.

During the year, the HKMA conducted 25 on-site and off-site thematic examinations and 15 off-site surveillance of AIs. These covered the selling of investment products, handling the settlement of securities transactions and safe custody of client securities, and the selling of non-linked long term insurance (NLTi) products and MPF-related products involving retail, private banking and corporate banking customers.

In August, the HKMA issued a circular to AIs to provide guidance on suitability assessment and product information disclosure in the selling of NLTi products to customers. The guidance aimed to assist AIs in complying with regulatory standards, including relevant requirements issued in July by the Office of the Commissioner of Insurance and the Hong Kong Federation of Insurers.

# Banking Stability

The HKMA continued to work closely with the Financial Services and the Treasury Bureau (FSTB) in the legislative process for the Insurance Companies (Amendment) Bill 2014, to establish an independent Insurance Authority and a statutory licensing regime for insurance intermediaries. In July, the Insurance Companies (Amendment) Ordinance 2015 was enacted by the Legislative Council, which provides, among other things, for the inspection and investigation powers, in respect of AIs' insurance intermediary activities, of the Monetary Authority through delegation.

The HKMA processed six applications to become Registered Institutions (RIs) and one application from RIs to engage in additional regulated activities. It granted consent to 204 executive officers responsible for supervising the securities activities of RIs, and conducted background checks on 9,697 individuals whose information was submitted by RIs for inclusion in the register maintained by the HKMA.

## **Supervision of treasury activities**

AIs' liquidity risk management remained one of the HKMA's priority supervisory focuses, particularly in light of the anticipated normalisation of interest rates in the US and the potential subsequent reversal of fund flows that could have an impact on AIs' liquidity positions. Throughout 2015, the HKMA continued to implement the enhanced Stable Funding Requirement for AIs to maintain sufficient stable funds to support their lending business. Since the implementation of the Basel III Liquidity Coverage Ratio (LCR) from 1 January 2015, the HKMA has been monitoring the level and trend of LCRs of category 1 institutions, which generally maintained LCRs close to or over 100%, well above the statutory minimum of 60% for 2015 under the phase-in arrangement.

Separately, the HKMA conducted thematic on-site examinations on selected AIs' control framework for managing the risks associated with the anticipated interest rate normalisation. Amid the market volatility, the HKMA also paid close attention to abrupt market changes and their impact on the banking sector as well as individual AIs, and undertook appropriate follow-up action.

## **Supervisor-driven stress testing programme**

The HKMA continued to conduct the bottom-up supervisor-driven stress testing programme to better understand the resilience of locally incorporated retail banks under extreme and adverse economic conditions, and to encourage them to develop plans to address potential problems in times of stress. A number of improvements were introduced during the year to collect more granular information to gain a greater insight into the risk dynamics of selected areas. The HKMA analysed the results submitted by the participating AIs and discussed with them how their stress-testing processes could be further improved.

## **Credit risk management and asset quality**

### **Credit growth and asset quality**

The strong credit growth trend observed in previous years has subsided since the second half of 2015. For the year as a whole, the banking sector's total lending increased by 3.5%, compared with 12.7% in 2014 (Table 2). As customer deposits grew faster than bank lending, the overall loan-to-deposit ratio decreased to 70.1% at the end of 2015 from 72.2% a year ago.

**Table 2** Growth in loans and advances

% change	2015	2014
Total loans and advances	<b>3.5</b>	12.7
Of which:		
– for use in Hong Kong	<b>6.3</b>	13.5
– trade finance	<b>-16.3</b>	-1.4
– for use outside Hong Kong	<b>2.8</b>	15.1



While credit growth moderated, the asset quality of the banking sector deteriorated slightly in 2015, with the classified loan ratio of retail banks standing at 0.70% at the end of the year, compared with 0.52% a year ago<sup>2</sup>, but still well below the long run average of 2.4% since 2000.

Because of these developments, the HKMA enhanced its supervisory effort to ensure the adequacy and effectiveness of Als' credit risk management systems. The focus of examinations and thematic reviews conducted during the year included the identification and management of problem credit, collateral and guarantee management, and loan underwriting practices. Where weaknesses were identified, the HKMA required the Als to take appropriate remedial action within a reasonable time. Where more significant issues were identified, the Als were required to commission an independent party to conduct an in-depth review and adopt appropriate measures to rectify weaknesses as soon as practicable. The HKMA also issued a practice note on credit risk management for loans to the corporate sector to promote prudent underwriting standards and risk management practices.

### Property mortgage lending

The HKMA remained vigilant over the property mortgage business of Als. In February, we introduced the seventh round of countercyclical measures to further strengthen Als' risk management. This round included lowering the maximum loan-to-value (LTV) ratio for self-use residential properties with a value below HK\$7 million to 60%, and tightening the maximum debt-servicing ratio (DSR) for second self-use residential properties from 50% to 40%. In addition, Als using the IRB approach to manage credit risk are required to extend the risk-weight floor of 15% to all residential mortgage loans (RML) (instead of only those newly granted) by June 2016.

In March, the HKMA issued further guidance that Als should reduce the applicable DSR cap by five percentage points if the total amount of financing obtained by a borrower, through a combination of mortgage loan and any co-financing or mortgage insurance scheme, exceeded the normal permissible LTV cap by 20 percentage points or above. To uphold the effectiveness of the countercyclical measures, the HKMA required Als to cease to provide credit to finance companies which offer property mortgage loans that did not comply with the HKMA's prudential requirements.

The seven rounds of countercyclical measures introduced since 2009 have made Als more resilient to potential credit losses in a property down cycle. The average LTV ratio for newly granted RMLs dropped to 50% in December 2015 from 64% in September 2009 when the first round of countercyclical measures was introduced. The average DSR for new RMLs also dropped to 34% in December 2015 from 41% in August 2010 when the DSR cap was first tightened. The HKMA will continue to closely monitor the property market.

### Mainland-related business

The banking sector's Mainland-related lending registered a modest increase amid the Mainland's moderating economic growth. In 2015, the banking sector's total Mainland-related lending increased by 3.2% after a 23.1% rise in 2014, to HK\$3,326 billion at the end of the year (Table 3). This included HK\$536 billion of loans booked with the Mainland subsidiaries of Hong Kong-based banks.

**Table 3** Mainland-related lending

HK\$ billion	2015	2014
Total Mainland-related lending	<b>3,326</b>	3,224
Of which:		
– Mainland-related lending excluding trade finance	<b>3,050</b>	2,868
– trade finance	<b>276</b>	356

<sup>2</sup> As the lending portfolios of locally incorporated Als' major overseas subsidiaries have become more material, the coverage of the classified loan ratio is expanded to include these entities. Excluding these entities, the classified loan ratio of retail banks would have stood at 0.63% at the end of 2015, compared with 0.46% a year ago.

# Banking Stability

The asset quality of Mainland-related lending deteriorated slightly in 2015. With this development and the growing importance of such lending to the local banking sector, the HKMA continued to apply substantial supervisory effort to such exposures during the year. To strengthen supervisory surveillance, the HKMA enhanced the existing surveys to collect more granular data from Als active in Mainland-related lending for in-depth analysis. In addition, more risk-focused off-site reviews and on-site examinations were conducted, including those of Mainland subsidiaries of locally incorporated banks, to ensure that prudent credit risk management practices were being adopted by the Als.

## Prevention of money laundering and terrorist financing

Given Hong Kong's important role as a regional and global payments hub, the HKMA targeted its specialist supervisory work on Als' transaction monitoring and screening systems, and sanctions-related controls in 2015. The HKMA also strengthened its capacity to identify significant and emerging risks, conduct thematic work and issue guidance to address some of those risks, such as money laundering controls over tax evasion, for which a guidance paper was issued in March. The programme of risk-based on-site examinations to assess Als' AML/CFT systems continued, with 21 on-site examinations and 22 desk-based reviews conducted in 2015.

As the risk-based approach is a prerequisite for effective AML/CFT systems in Als, the HKMA continued to place a strong emphasis on their ability to understand and assess their money laundering and terrorist financing (ML/TF) risks, and provided feedback and other commonly found deficiencies in the annual AML seminar held in November.

The HKMA worked with international and domestic partners to conduct Hong Kong's first jurisdiction-wide ML/TF risk assessment. The assessment, which addresses risks in the banking sector, is expected to be published in 2016.

## Risk governance

The HKMA adopts a holistic approach to the supervision of Als' risk governance and integrates observations about risk culture into its day-to-day supervisory work. During the year, the HKMA held meetings with the boards of directors and, in some cases, arranged separate sessions with the independent non-executive directors (INEDs) of local retail banks to exchange views on risk issues and supervisory matters. The HKMA conducted interviews with the chief risk officers of local retail banks to gain a better understanding of the importance and independence of the risk management function as well as the banks' progress in implementing their risk appetite frameworks. The HKMA also initiated a review of banks' risk management and approval processes for new or expanded products or services.

## Talent development

In 2015, the HKMA provided further guidance to the Private Wealth Management Association (PWMA) in implementing the Enhanced Competency Framework for private wealth management practitioners (PWM ECF), which was launched in June 2014. The HKMA encouraged private banks to adopt the PWM ECF benchmark and conducted surveys to monitor the progress of their implementation. According to the survey results, as at end of June 2015, private banks projected that about 90% of a total of some 3,000 relevant private banking practitioners would meet the PWM ECF benchmark by the end of 2016, and virtually all would achieve it by the end of 2017. In addition, some 1,300 relevant practitioners, who have met the PWM ECF benchmark and accumulated sufficient relevant work experience, were granted the professional designation of "Certified Private Wealth Professional" by the PWMA as of December 2015.

Following the successful launch of the PWM ECF, the HKMA worked with the banking industry and the Hong Kong Institute of Bankers (HKIB) to develop an enhanced competency framework for AML/CFT to expand the pool of talent in this area and enhance the professional competence of existing practitioners. In December, the HKMA issued for industry consultation its proposals, and expects to launch the framework by the end of 2016.

## Co-operation with overseas supervisors

The HKMA participated in college-of-supervisors meetings organised by the home supervisors of 14 banking groups with significant operations in Hong Kong. Issues of common interest were discussed, including key areas of supervisory focus, financial performance, operations, cyber security, corporate governance, compliance and other types of risk management and supervisory issues relating to these banking groups.

Bilateral meetings were held during the year with banking supervisors from Belgium, Canada, the European Union, Germany, Indonesia, Japan, the Mainland, Malaysia, Macau, the Philippines, Saudi Arabia, Singapore, Switzerland, Taiwan, the UK and the US to ensure effective co-operation and co-ordination. There were also regular exchanges with overseas authorities on institution-specific issues and developments in financial markets.

The HKMA attended the crisis management groups (CMGs) of 11 banking groups organised by the relevant home authorities to discuss resolution strategies, oversee production of the recovery and resolution plans and assess the resolvability of each banking group in accordance with the principles established by the Financial Stability Board (FSB). The HKMA also participated in relevant international working groups focused on the development of resolution policy and measures to make resolution operationally feasible.

As an FSB member, the HKMA contributed its views on proposals for the loss-absorbing capacity of global systemically important banks (G-SIBs), cross-border effectiveness of resolution actions, funding for firms in resolution, and operational continuity. The HKMA organised a regional CMG for the host regulators from the Asia-Pacific region about a local banking subsidiary of one UK-based international bank with extensive operations in the region. The HKMA also organised jointly with the China Banking Regulatory Commission, the HKIB and the China Banking Association a two-day high level seminar for Als' INEDs.

## International co-operation

The HKMA takes part in a range of international and regional forums for banking supervisors. It is currently a member of the Basel Committee on Banking Supervision (Basel Committee) and its governing body, the Group of Governors and Heads of Supervision, and is represented on various Basel Committee working groups, including the Policy Development Group (PDG), the Supervision and Implementation Group (SIG) and the AML/CFT Expert Group. The HKMA is a member of a number of sub-groups under (i) the PDG, including: the Working Group on Capital, the Trading Book Group, the Working Group on Liquidity, the Working Group on Disclosure, the Large Exposures Group, the Task Force on Standardised Approaches, the Task Force on Interest Rate Risk in the Banking Book and the Task Force on the Scope of Regulatory Consolidation; and (ii) the SIG, including: the Working Group on SIB Supervision, the Working Group on Supervisory Colleges, the SIG Trading Book Group, the SIG Banking Book Group, the Task Force on Impact and Accountability and the Stress Testing Network. In addition, the HKMA participates in the Joint Working Group on Margining Requirements formed by the Basel Committee and the International Organization of Securities Commissions (IOSCO).

The HKMA is a member of the FSB Plenary Meeting, FSB Standing Committee on Assessment of Vulnerabilities and FSB Standing Committee on Supervisory and Regulatory Co-operation. It also participates in a number of FSB working groups including the Resolution Steering Group, the Cross-Border Crisis Management Working Group, the OTC Derivatives Working Group, the Compensation Monitoring Contact Group, and the Workstream on Other Shadow Banking Entities.

At the regional level, the HKMA is a member of the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), the South East Asia, New Zealand and Australia Forum of Banking Supervisors and the South-East Asian Central Banks group. As part of its work within the EMEAP Working Group on Banking Supervision, the HKMA is the Champion of the Interest Group on Liquidity (IGL). During the year, the IGL conducted surveys and engaged in discussions regarding the implementation of Basel III liquidity standards in the EMEAP jurisdictions.

## Implementation of Basel standards in Hong Kong

### Capital standards

In January, the HKMA announced a jurisdictional Countercyclical Capital Buffer (CCyB) for Hong Kong at a rate of 0.625% (reflecting the Basel III phase-in provisions), effective 1 January 2016. On 14 January 2016, the HKMA increased the CCyB rate for Hong Kong to 1.25% with effect from 1 January 2017. This decision followed the Basel III phase-in level. Further, in line with the Basel Committee's *Framework for dealing with domestic systemically important banks* (D-SIBs), the HKMA designated five AIs as D-SIBs in March and on 31 December announced the updated list of D-SIBs for 2016, together with their corresponding higher loss absorbency capital requirements to take effect from 1 January 2017.

The Banking (Capital) (Amendment) Rules 2015 addressed some technical differences between the texts of the Banking (Capital) Rules (BCR) and the Basel capital standards which were identified in the Basel Committee's "Assessment of Basel III risk-based capital regulations — Hong Kong SAR" published in March 2015 under its Regulatory Consistency Assessment Programme. Other findings in the report (which concluded that Hong Kong's regulatory capital regime was overall compliant with the Basel framework) will be dealt with in due course when those parts of the Basel capital standards, which are currently being revised by the Basel Committee, are eventually adopted in Hong Kong.

Three sets of standards released by the Basel Committee in 2013 and 2014 are scheduled to be implemented in 2017: *Capital requirements for banks' equity investments in funds* (December 2013); *The standardised approach for measuring counterparty credit risk exposures* (revised in April 2014); and

*Capital requirements for bank exposures to central counterparties* (April 2014). The HKMA intends to implement these standards with effect from 1 January 2017, and began consulting the banking industry associations on its proposed approach in November 2015.

### Disclosure standards

The Banking (Disclosure) (Amendment) Rules 2014 amended the Banking (Disclosure) Rules (BDR) with effect from 31 March 2015 to introduce new disclosure requirements for AIs in relation to their capital buffers, LCR and leverage ratio in line with Basel III.

In December, the HKMA issued a consultation document on its proposed approach to implementing the Basel Committee's January 2015 *Revised Pillar 3 disclosure requirements* (2015 Pillar 3 Package). The 2015 Pillar 3 Package is the outcome of the first phase of the Basel Committee's review of its existing Pillar 3 framework, which is designed to strengthen regulatory disclosure, particularly in terms of the relevance and comparability of disclosed information for market participants. To this end, the 2015 Pillar 3 Package features a greater use of standard templates and tables, combined with flexibility for banks to provide commentary to reflect bank specific circumstances and risk profiles. Scheduled to take effect from end-2016, the first phase of the review focuses on the disclosure of information related to banks' risk-weighted assets for Pillar 1 risks. The second phase, which is currently in progress, will consolidate the existing Basel III disclosure requirements and specify the disclosure requirements arising from the policy development work currently being finalised by the Basel Committee. The full review will ultimately consolidate all Basel Committee disclosure requirements into a single coherent package.

## Implementation of Basel standards in Hong Kong (continued)

### Liquidity standards

The Banking (Liquidity) Rules, which implement the Basel III LCR together with a local Liquidity Maintenance Ratio (LMR), came into operation on 1 January 2015. 12 AIs have been designated by the HKMA as “category 1 institutions” and are subject to the LCR requirements, while the LMR requirements are applicable to all other AIs (category 2 institutions). To complement the implementation of the new liquidity ratios, two sets of liquidity monitoring tools were introduced in accordance with guidance issued by the Basel Committee. The *Return on Intraday Liquidity Position of an Authorized Institution* and the *Return on Liquidity Monitoring Tools* were issued respectively in June 2015 (with reporting starting from the position of October 2015) and in September 2015 (with reporting starting from the position of December 2015).

### Supplementary guidance for Basel III implementation

The SPM module “Overview of capital adequacy regime for locally incorporated authorized institutions” was updated to reflect the current regulatory capital framework in Hong Kong under Basel III and gazetted in February 2015. The SPM module “Systemically Important Banks”, which set out the HKMA’s methodology for identifying AIs in Hong Kong to be designated as D-SIBs and G-SIBs, was also gazetted in February 2015.

Two new SPM modules on the operation of the countercyclical capital buffer were issued during the year: “Countercyclical Capital Buffer (CCyB) — Approach to its Implementation” (January 2015) and “Countercyclical Capital Buffer (CCyB) — Geographic Allocation of Private Sector Credit Exposures” (September 2015).

In August, the HKMA issued a revised SPM module “Guideline on the Application of the Banking (Disclosure) Rules” to align with amendments made to the BDR from 2013 for the purposes of implementing the Basel III standards. The revisions also reflected recent changes in prudential reporting requirements relating to AIs’ Mainland activities and international claims.

### Basel Committee’s Regulatory Consistency Assessment Programme

The Basel Committee’s Regulatory Consistency Assessment Programme (RCAP) compares each of its member jurisdictions’ capital and liquidity requirements against the minimum standards set out in the Basel II, Basel 2.5 and Basel III frameworks. By promoting full, timely and consistent implementation of the Basel standards, the RCAP is intended to strengthen the international banking system, improve market confidence in regulatory ratios and ensure a level playing field.

Having undergone its own RCAP assessment in 2014, the HKMA participated in the RCAP assessments of three other jurisdictions during the year. As the leader of an international team, the HKMA completed an RCAP assessment of India (covering both capital and liquidity standards). The report was published by the Basel Committee in June 2015. The HKMA also joined technical experts from other countries to undertake an RCAP assessment of Russia, and participated in another review team for evaluating the assessment report on the relevant regulations in South Africa.

## Improving Supervisory Policy Framework

### Credit risk transfer

In November, the HKMA consulted the banking industry associations on a draft module for the SPM on "Credit Risk Transfer Activities" (CRT activities). The module is intended to reflect recent developments in risk management practices for CRT activities and replace the existing SPM module "Credit Derivatives" and Guideline No. 4.6 "Supervisory treatment on asset securitisation and mortgage backed securities".

### Regulation of over-the-counter (OTC) derivatives transactions

In December 2015, the HKMA released a consultation document and a draft SPM module outlining its proposed approach to implementing global margining and risk mitigation standards for AIs involved in non-centrally cleared OTC derivatives transactions. These standards, developed jointly by the Basel Committee and IOSCO, are designed to reduce counterparty credit risk and limit contagion by ensuring that collateral is available to offset losses caused by the default of a derivatives counterparty; to promote legal certainty over the terms of derivatives contracts; and to facilitate timely resolution of disputes. It is anticipated that the new module will take effect from 1 September 2016, in line with the Basel Committee-IOSCO phase-in schedule.

### Exposure limits

Following the release of the Basel Committee's "Supervisory framework for measuring and controlling large exposures" in April 2014, the HKMA has initiated a comprehensive review of the current regulatory framework on exposure limits for AIs in Hong Kong. In this review, we are considering approaches for both implementing the Basel Committee's new large exposures framework locally and updating other current regulations on exposure limits which are not directly related to that framework.

The Basel large exposures framework consists of a comprehensive Pillar 1 minimum standard for internationally active banks, which is designed as a simple backstop to complement the risk-based capital standard. Aggregate exposures to single or linked counterparties will, for the most part, be limited to 25% of a bank's Tier 1 capital limit. A stricter 15% limit will apply to exposures between G-SIBs.

In the light of AIs' increasing derivatives activity, the HKMA revised the *Return of Large Exposures* in June 2015 to gather more relevant data for the supervisory monitoring of exposures arising from OTC derivatives transactions and credit derivatives contracts.

### Exposures to connected parties

Following industry consultation, an updated SPM module "Exposures to Connected Parties" was gazetted in November 2015. The revisions were primarily designed to address two recommendations from the International Monetary Fund (IMF) following its assessment of Hong Kong's compliance with the Basel Committee's *Core Principles for Effective Banking Supervision* (Basel Core Principles) in 2014 under its Financial Sector Assessment Program. Specifically, for the purpose of an AI's internal risk management, the definition of connected parties in the module has been aligned with that under "Principle 20: Transactions with related parties" of the Basel Core Principles. In addition, any write-off of exposures to connected parties exceeding a specified amount, or otherwise posing special risks to the AI, is required to be approved by the AI's Board (or its Credit Committee or other relevant Board Committee).

## Accounting standards

Following release of IFRS 9 *Financial Instruments* by the International Accounting Standards Board (IASB) in July 2014, various initiatives have been undertaken by standard-setting bodies to promote robust and consistent application of IFRS 9 or of the expected credit loss accounting framework of the US Financial Accounting Standards Board (FASB) across jurisdictions. These include a specific Transition Resource Group established by the IASB to act as a discussion forum to provide support for stakeholders on implementation issues pertaining to IFRS 9, and the issuance by the Basel Committee of new supervisory guidance on accounting for expected credit losses. The FSB has also called on the International Auditing and Assurance Standards Board to develop audit guidance to support implementation of the new impairment requirements. Domestically, the HKMA continued discussions with bank auditors on AIs' preparation for the implementation of IFRS 9.

During the year, the HKMA maintained regular dialogue with the Banking Regulatory Liaison Group of the Hong Kong Institute of Certified Public Accountants (HKICPA) on topics of common interest. These included international and domestic developments in relation to new or revised accounting, auditing and financial reporting standards and their implications for banks, as well as major international and domestic banking regulatory developments.

## Recovery and resolution

The HKMA, together with the FSTB, the Securities and Futures Commission (SFC) and the Insurance Authority, continued to take forward proposals for the implementation in Hong Kong of an effective cross-sector resolution regime for financial institutions. The regime is designed to meet the *Key Attributes of Effective Resolution Regimes for Financial Institutions* (Key Attributes) prescribed by the FSB, and to enhance the resilience of the local financial system against the risks that could be posed to financial stability and public funds in the unlikely event that a financial institution with potential systemic impact were to fail.

All FSB member jurisdictions are expected to adopt the standards set by the Key Attributes. A self-assessment carried out by the authorities in Hong Kong (and subsequently confirmed by the FSB and the IMF) established that while a relatively well-developed statutory and regulatory framework is already in place to deal with distressed financial institutions, some significant gaps still exist when compared to the full range of powers now deemed necessary for an effective resolution regime in the Key Attributes. Therefore, legislative reform is required to achieve compliance locally with the Key Attributes.

Significant progress was made on the necessary reforms during 2015. Following the first public consultation in 2014, a second was launched in January and the consultation response to both was issued in October. Throughout the process, a majority of stakeholders indicated broad support for the reforms' objective and provided constructive comments to support the effective development of the regime. A major milestone was reached in December with the introduction of the Financial Institutions (Resolution) Bill (FIRB) into the Legislative Council, following its publication in the Government Gazette in November.

In parallel with the development of these legislative reforms, the HKMA has continued with its implementation of "recovery planning" requirements for AIs, which were first introduced in June 2014. To date, 19 AIs have submitted recovery plans to the HKMA.

## Bank consumer protection

### *Code of Banking Practice*

Following a comprehensive review of the Code in 2014 by the Code of Banking Practice Committee, on which the HKMA is represented, the revised Code became effective on 6 February 2015 to offer better protection to consumers of bank services. AIs are expected to take steps to comply with the revised provisions as quickly as possible and achieve full compliance within six months. A further six-month grace period was allowed for compliance with the revised provisions where system changes are required. The HKMA conducted a progress survey in Q4 to monitor AIs' implementation of the revised Code and will continue to monitor their compliance as part of its supervision of AIs.



# Banking Stability

## **Treat Customers Fairly Charter**

In line with the spirit of promoting a customer-centric culture and fostering financial inclusion under the Treat Customers Fairly Charter, the banking industry is responding positively to the HKMA's call for the provision of adequate basic banking services to the public. A number of banks took the lead in leveraging advancements in technology to introduce mobile branch and video teller machines to enhance access to basic banking services.



Chief Executive of the HKMA, Mr Norman Chan, speaks at the launch ceremony of a mobile branch.

To facilitate opening of bank accounts by the general public, including the ethnic minorities, the HKMA arranged a sharing session in April for ethnic minority organisations and representatives of the banking industry to share perspectives and exchange views in order to improve communication among different stakeholders. Since then, the industry has enhanced the accessibility of basic information about account opening procedures and improved staff training to ensure better customer communication and cultural sensitivities. In June, the HKMA issued further guidance to retail banks in relation to the provision of banking services and support for fund raising activities of non-government organisations.

The HKMA conducted a thematic examination and ongoing monitoring of AIs' implementation of the Treat Customers Fairly principles and related policies and controls in relation to the provision of basic banking services.

Various policies and measures were also introduced to help further protect the interests of bank consumers. In the light of a surge in the number of bogus phone calls purportedly from banks, the HKMA issued in July a circular to require all retail banks to publicise "fraud alerts" on their websites and other channels to draw customers' attention to suspicious calls. In August, another circular was issued requiring all AIs to cease the use of intermediaries for sourcing customers for retail non-collateralised financial products or services. The public was made aware that calls from intermediaries for these referrals would then be potentially fraudulent. The HKMA also required all retail banks to provide customer hotlines to facilitate the public in verifying the identity of callers, and jointly organised with the industry the "Beware of Fraudulent Calls, Verify the Caller's Identity" publicity campaign to raise awareness of phone scams and remind the public to be vigilant about safeguarding their personal data.



Deputy Chief Executive of the HKMA, Mr Arthur Yuen, and representatives of the HKAB and 21 retail banks at the launch ceremony of the "Beware of Fraudulent Calls, Verify the Caller's Identity" publicity campaign.

## **Credit data sharing**

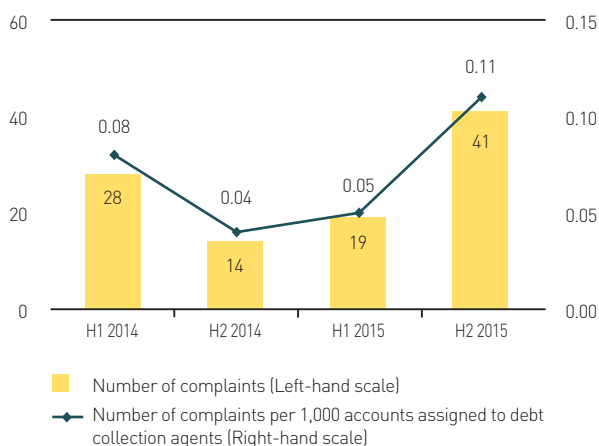
At the end of 2015, 114 AIs and subsidiaries of AIs were sharing commercial credit data through the Commercial Credit Reference Agency. The scheme contains the credit data of more than 122,900 business enterprises, about 16% of which were sole proprietorships and partnerships.



### Customer complaints relating to debt collection agents employed by AIs

The number of complaints received by AIs about their debt collection agents increased to 60 from 42 in 2014 (Chart 1). The HKMA will continue to ensure that AIs properly monitor the conduct of their debt collection agents.

**Chart 1** Complaints received by AIs about their debt collection agents



### Bank consumer education

The HKMA's Consumer Education Programme aims to educate the public to be smart and responsible in the use of banking services. One of the initiatives in 2015 was the introduction in December of a new TV drama series entitled "All about Banking", jointly developed with Radio Television Hong Kong (RTHK). The eight-episode five-minute drama series, broadcast on TV, the RTHK's website, YouTube Channel Page and the "RTHK Screen" smartphone application, covered smart tips on a range of banking services. To stimulate public interest in the series, various publicity channels were used including print, the internet, mobile and out-of-home media. A promotion game was also run jointly with a free Chinese daily newspaper.



One episode in the "All about Banking" series reminds consumers to check on fees when using credit cards overseas.

In the light of a surge in bogus phone calls purportedly from banks since July, the HKMA collaborated with the Hong Kong Association of Banks in producing a TV and a radio Announcement in the Public Interest (API) to remind the public that banks no longer accepted intermediary referrals for personal loans or credit card applications. The API alerted the public not to divulge their personal data without first verifying the callers' identity through their respective bank hotlines. The announcement was broadcast through the electronic media, and augmented with telecasts on public transport, popular anchor sites and smartphone applications, the HKMA website and the HKMA Smart Tips Channel on YouTube. There were other promotions in the print and out-of-home media.



A new API raises public awareness about bogus phone calls purportedly from banks.

# Banking Stability

Thematic campaigns were conducted on responsible credit card spending, smart tips on personal loans, and the importance of verifying the authorization status of a financial institution before placing a deposit. In addition to the publication of feature articles, a lively comic strip was also used to educate the public.



A novel way to alert the public on banking issues.

To sustain the HKMA's educational efforts, light-hearted audio clips were broadcast during the year promoting smart tips on different topics. And, the screening of four short video clips on minimum payment of credit cards and self-banking services was extended to TV, cinemas, extra public transport, smartphone applications and the internet, in addition to the HKMA's website, Information Centre, Coin Carts and YouTube Channel Page.



A cross-media campaign sustains promotion of the video series.

On youth programmes, the HKMA co-organised the “Hong Kong Liberal Studies Financial Literacy Championship” with various stakeholders to promote financial literacy among senior secondary school students. Winners of this online quiz learnt more about the HKMA’s work through a visit to the Information Centre and a “Meet the HKMA Chief Executive” session. An educational kit containing the material from the online quiz was sent to all secondary schools for use in post-examination activities. Talks for senior secondary school and university students advocating responsible spending continued during the year.



Three winning students chat on stage with the Chief Executive of the HKMA, Mr Norman Chan.

The HKMA continued to support the Investor Education Centre in promoting financial literacy in Hong Kong, collaborating in the publication of a joint article on renminbi structured deposits in *Choice Magazine*, and providing advice on educational materials on various themes, as well as acting as a supporting organisation in the launch of the “Hong Kong Strategy for Financial Literacy”.

## Deposit protection

The Deposit Protection Scheme (DPS) continued to provide protection to deposits up to HK\$500,000 per depositor per bank. Public consultation on proposals to enhance the Scheme by achieving faster payouts, mainly through the adoption of a gross payout approach, was completed. The responses received indicated broad support for the proposals in view of the benefits of prompt payouts to depositors and reinforcing the effectiveness of the DPS as part of Hong Kong’s financial safety net. Taking into account the comments from the consultation process, legislative amendments to implement the new measures were introduced into the Legislative Council in November 2015. The amendments will take immediate effect upon passage by the Legislative Council. They will enable, in the event of a bank failure, deposit compensation payments to be made to depositors in seven days under most circumstances.

# Banking Stability

A new programme for monitoring the compliance of DPS member banks (Scheme members) with the enhanced information requirements became fully effective in 2015 to ensure they are ready at all times to provide deposit records within the specified timeframe. The first annual self-certification of compliance submitted by Scheme members indicated satisfactory compliance. A payout rehearsal also verified the operational effectiveness of payout preparation by the Hong Kong Deposit Protection Board after receiving an early notification of a potential payout from the HKMA.

The annual self-assessments completed by Scheme members and on-site examinations conducted by the HKMA continued to be an effective mechanism for monitoring compliance of Scheme members with the requirements in relation to representations about DPS protection. The compliance level was generally satisfactory.

Multi-media publicity campaigns and community education programmes were launched during the year which helped maintain a high public awareness of the DPS. In addition, to capture the attention of a growing digital-savvy market, an inaugural effort was made to employ social media to introduce the DPS to a wider audience, particularly the younger generation.

## Licensing and Director Empowerment Programme

At the end of 2015, Hong Kong had 157 licensed banks, 24 restricted licence banks, 18 deposit-taking companies and 15 approved money brokers. During the year, the HKMA granted one banking licence to a local subsidiary of a foreign bank, two restricted banking licences (one to a locally incorporated company and one to a local subsidiary of a foreign banking group), and upgraded a local deposit-taking company subsidiary of a foreign bank to a restricted licence bank. Three licensed banks and five deposit-taking companies (one of which was upgraded to a restricted licence bank) revoked their authorization during the year.

The HKMA continued to work with the HKIB to support the skills and knowledge development of directors of locally incorporated AIs. In 2015, the HKIB organised four seminars for directors and senior executives of banks on topical issues to keep them up to date with developments in the industry and regulatory requirements. The topics included Basel III, Mainland-related business, risk culture and the proposed resolution regime. To further enhance the director development programme, the HKMA collaborated with the HKIB in conducting a survey on the training and development needs of directors, which also incorporated the areas in which they were interested. The survey results will be followed up by the HKMA and the HKIB.

INEDs play an important role in ensuring appropriate risk governance in the conduct of AIs' business. In this context, the HKMA continued to arrange informal experience-sharing sessions to support recently-appointed INEDs in managing ongoing challenges facing them and the banking industry generally.

To help improve the competitiveness of the local banking sector in attracting suitably qualified and experienced people as INEDs and to facilitate them to play their roles, the HKMA commissioned a small study group of experts on corporate governance to make recommendations on how best Hong Kong could equip and empower the INEDs to promote the culture and further development of good governance in locally incorporated AIs. The banking industry and other relevant stakeholders will be consulted on the recommendations.



## Enforcement

### Banking complaints

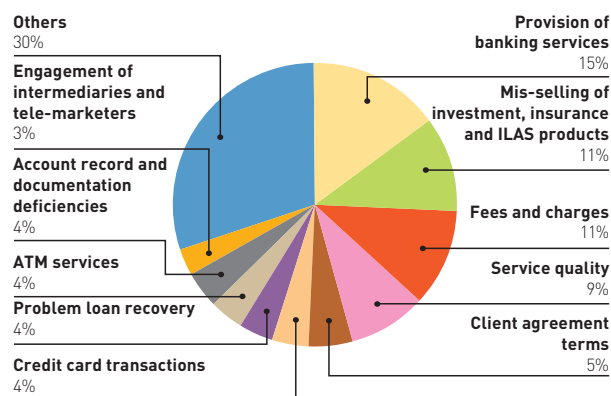
The HKMA received 1,608 complaints against AIs and members of their staff, a 30% increase over a year earlier, and completed the handling of 1,469 cases in 2015. At the end of the year, the total number of outstanding cases was 539 (Table 4).

**Table 4** Banking complaints received by the HKMA

	2015			2014
	Conduct-related issues	General banking services	Total	Total
<b>In progress</b> on 1 January	160	240	<b>400</b>	500
<b>Received</b> during the year	252	1,356	<b>1,608</b>	1,234
<b>Completed</b> during the year	(194)	(1,275)	<b>(1,469)</b>	(1,334)
<b>In progress on 31 December</b>	218	321	<b>539</b>	400

Complaints relating to the provision of banking services continued to rank highest in 2015, increasing by 35% to 237. The increase was mainly due to complaints about the termination of banking relationships by AIs following the completion of customer due diligence processes resulting in AIs ceasing to provide banking services. The overall number of complaints related to the mis-selling of investment, insurance and investment-linked assurance scheme (ILAS) products increased by 1% to 174. But, following the depreciation of the renminbi, there was a notable increase in complaints relating to the mis-selling of foreign exchange accumulators linked to the renminbi from corporate customers by 314% to 29. The number of complaints related to client agreement terms increased by 40% to 73 and those involving credit card transactions increased by 31% to 72. Complaints concerning ATM services rose by 37% to 70, and those related to problem loan recovery also surged by 32% to 70. Other major types of complaints included those related to account record and documentation deficiencies, up 90% to 57, and complaints about AIs' engagement of credit intermediaries and tele-marketers to solicit loan business, up 38% to 55 (Chart 2).

**Chart 2** Types of service or product concerned in banking complaints received by the HKMA



### New complaint-related materials on the HKMA website

As one of the HKMA's initiatives to promote more transparent and effective communication with the public, a set of frequently asked questions together with a flowchart of the HKMA's complaint handling process, was uploaded to the HKMA website in May to enhance the public understanding of the HKMA's role and procedures in the handling of complaints about banks. In addition, a revised version of the complaint form with refined completion instructions was introduced to make it more user-friendly.

### Enforcement action

In July, the HKMA was the first regulatory authority to exercise its disciplinary power under the Anti-Money Laundering and Counter-Terrorist Financing (Financial Institutions) Ordinance (AMLO) when it took disciplinary action against the State Bank of India, Hong Kong Branch (SBIHK) for contraventions of four specified provisions under the AMLO relating to customer due diligence, the obligation to continuously monitor business relationships with customers, the obligation to establish and maintain effective procedures for determining whether customers are politically exposed persons and the obligation to establish and maintain effective procedures to ensure compliance with specified provisions concerning customer due diligence and ongoing monitoring. The HKMA

# Banking Stability

reprimanded SBIHK, imposed a pecuniary penalty of HK\$7,500,000 and ordered SBIHK to submit the report of an independent external advisor regarding the sufficiency of SBIHK's remedial plan and the effectiveness of its implementation. The disciplinary action served not only as a deterrent to an individual institution, but also to the industry generally and underlined the importance of maintaining effective systems and controls to combat money laundering and terrorist financing.

Also in July, the HKMA suspended the registration of a serving relevant individual (Rel) for 10 weeks under the Banking Ordinance. The suspension followed an investigation which found the Rel guilty of misconduct and not a fit and proper person, in that the Rel had failed to obtain the specific instructions of the client before effecting certain investment transactions and to record the order instructions of the client for those transactions, contrary to regulatory requirements.

Disciplinary sanctions, ranging from suspension to life ban, were imposed during the year by the SFC on two Rels following referral by the HKMA. The HKMA also issued 31 compliance advice letters to AIs and their staff who were found not to have acted in full compliance with the relevant regulatory requirements, but the cases involved minor lapses that did not warrant disciplinary sanctions.

## **Complaints Watch**

In a continuing initiative to promote proper standards of conduct and prudent business practices among AIs, three issues of *Complaints Watch* were published in 2015, drawing AIs' attention to trends in banking complaints and emerging topical issues. The topics covered in the newsletters included: unauthorised transactions by banks' relationship managers; remittance frauds; disclosure of early repayment terms and related charges for personal loans; the fraudulent use of lost ID cards; the execution of customer due diligence measures; and, the engagement of credit intermediaries in loan solicitation.

## **Oversight of financial market infrastructures**

The HKMA issued a policy statement in 2013 setting out its approach to the oversight of financial market infrastructures (FMIs) under its purview. The policy objectives of the HKMA in overseeing these FMIs are to promote their general safety and efficiency, limit systemic risk and foster transparency. The aim is to make the FMIs more resilient to financial crises and protect the monetary and financial systems in Hong Kong from possible destabilising effects arising from disruption to the FMIs. The policy statement, which is available on the HKMA website, is updated from time to time to reflect changes to the oversight framework.

The Clearing and Settlement Systems Ordinance (CSSO) empowers the Monetary Authority to designate and oversee clearing and settlement systems that are material to the monetary or financial stability of Hong Kong, or to the functioning of Hong Kong as an international financial centre. On 13 November 2015, the CSSO was amended and renamed the Payment Systems and Stored Value Facilities Ordinance (PSSVFO). While the major amendments established a regulatory regime for the retail payment systems and the stored value facilities, some of the provisions applicable to the large-value clearing

and settlement systems were revised to further enhance the legal framework for overseeing such systems. The purpose of the Ordinance is to promote the general safety and efficiency of the designated systems: the Central Moneymarkets Unit (CMU), the Hong Kong dollar Clearing House Automated Transfer System (HKD CHATS), the US dollar CHATS, the Euro CHATS, the Renminbi CHATS and the Continuous Linked Settlement (CLS) System. The HKMA is also responsible for overseeing the OTC Derivatives Trade Repository (HKTR), which is owned and operated by the HKMA. Since it is not a clearing or settlement system, it is not designated as such under the CSSO/PSSVFO. However, it is the policy intention of the HKMA to oversee the HKTR in the same way and apply, where relevant, the same standards as the other designated systems under its purview. All the designated systems and the HKTR are treated as FMIs in Hong Kong.

The HKMA adopts international standards in its oversight framework of FMIs. The Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements and the Technical Committee of the IOSCO published the Principles for Financial Market Infrastructures (PFMI) in 2012. The PFMI constitute the latest international standards on the oversight of the FMIs including systemically important payment systems, central securities depositories, securities settlement systems, central counterparties and trade repositories. The HKMA and the SFC jointly issued a policy statement in March 2013 on the adoption of the PFMI for the systematically important FMIs in Hong Kong. To implement the requirements under the PFMI, the HKMA issued an amended statutory "Guideline on the Oversight Framework for Designated Systems" under the CSSO and a new "Guideline on the Oversight Framework for the Hong Kong Trade Repository". The two Guidelines are being revised to take into account developments, including changes to

reflect the amendments arising from the PSSVFO. The revised Guidelines will be issued in early 2016.

Except for the CLS System, the HKMA oversees other FMIs under its purview through off-site reviews, continuous monitoring, on-site examinations and meetings with management. All the FMIs continued to comply with the relevant requirements.

During the year, the HKMA continued to work with the FMIs under its purview to ensure observance of the PFMI and substantive progress has been made by the FMIs to align with the PFMI requirements. All the FMIs have prepared and published Disclosure Frameworks, which is a key requirement under the PFMI to improve transparency by disclosing system arrangements principle by principle.

### ***International participation***

The HKMA is a member of the CPMI and participates in meetings, working groups and forums on FMI oversight matters. It also participates in the CPMI-IOSCO Implementation Monitoring Standing Group, which is responsible for monitoring and assessing the implementation of the PFMI by different jurisdictions. In addition to participating in the monitoring and assessment of other jurisdictions, the HKMA is also one of the parties being assessed. By the end of 2015, the HKMA had participated in the Level 1 assessment which examined whether a regulatory authority has completed the process of adopting legislation and other policies to enable it to implement the principles and responsibilities for overseeing FMIs, and a combined Level 2 and Level 3 assessment to examine whether a regulatory authority has effectively implemented the responsibilities for overseeing the FMIs. The HKMA obtained the highest ratings in both assessments.

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The HKMA is also a member of the Oversight Forum of the global message carrier SWIFT, which discusses relevant oversight matters and shares SWIFT-related information. Hong Kong's AIs and FMs use, and rely on SWIFT's services and may be exposed to risks in the event of any disruption to its operations.

The HKMA participates in the international co-operative oversight of the CLS System through the CLS Oversight Committee. The CLS System is a global clearing and settlement system operated by the CLS Bank for cross-border foreign exchange transactions. It enables foreign exchange transactions involving the CLS eligible currencies, including the Hong Kong dollar, to be settled on a payment-versus-payment (PvP) basis. During the year, the HKMA attended various meetings and teleconferences of the CLS Oversight Committee to discuss operational and development matters as well as Hong Kong dollar-specific issues to ensure the CLS System continued to meet the safety and efficiency requirements under the CSSO/PSSVFO.

In addition to the CLS System, the HKMA held discussions with relevant overseas authorities to further strengthen the co-operative oversight of links between the FMs in Hong Kong and those overseas. In particular, the HKMA discussed strengthening the existing co-operative oversight arrangements for the PvP links between the USD CHATS and the Malaysian Ringgit, Indonesian rupiah, and Thai baht RTGS systems. During the year, the HKMA also held bilateral meetings with the National Bank of Belgium (NBB), the Luxembourg Commission de Surveillance du Secteur Financier (CSSF) and the Banque centrale du Luxembourg (BCL) to discuss matters concerning the links between the CMU and the two international central securities depositories, Euroclear (NBB) and Clearstream (CSSF & BCL). The HKMA will continue to work with the relevant authorities to further strengthen co-operative oversight arrangements where appropriate.

## ***Independent tribunal and committee***

An independent Clearing and Settlement Systems Appeals Tribunal was established in 2004 to hear appeals against decisions of the Monetary Authority on designation and related matters under the CSSO. The tribunal was renamed the Payment Systems and Stored Value Facilities Appeals Tribunal after the PSSVFO came into effect on 13 November 2015. There has been no appeal since the establishment of the tribunal. An independent Process Review Committee, whose members are appointed by the Chief Executive of the Hong Kong Special Administrative Region, reviews processes and procedures adopted by the HKMA in applying standards under the CSSO/PSSVFO to systems in which the HKMA has a legal or beneficial interest. The terms of reference of the Committee were revised to reflect the amendments made in the PSSVFO. The Committee assesses whether the HKMA has applied the same procedures to all designated systems. The Committee met twice in 2015 and reviewed four regular reports and 22 accompanying oversight activities' management reports. The Committee concluded that it was not aware of any case where the HKMA had not duly followed the internal operational procedures, or where the HKMA had not been procedurally fair in carrying out its oversight activities. Under its terms of reference, the Committee submitted its annual report to the Financial Secretary, which is available on the HKMA website.



## PLANS FOR 2016 AND BEYOND

### Supervisory focus

#### *Asset quality*

Amid uncertain global economic conditions and the normalisation of interest rates in the US, Als should remain vigilant in managing their credit risk. With heightened concerns about the possible impact on fund outflows and asset price volatility, the HKMA will continue to closely monitor the asset quality of Als' lending portfolios and promote sound credit risk management by Als to ensure the resilience of Hong Kong's banking system to the potential downturn in the credit cycle.

#### *Mainland-related business*

The HKMA will continue to take a meticulous approach to ensure that Als are adopting prudent credit underwriting and risk management practices for their Mainland-related business. On-site examinations and off-site reviews of Als' risk management systems for such business, and detailed analyses of Als' relevant data, will remain the key supervisory tools. In addition, the HKMA will maintain close dialogue with the industry to further promote sound credit risk management practices in conducting Mainland-related business.

#### *Prevention of money laundering and terrorist financing*

The HKMA will continue its programme of risk-based examinations on Als which may present higher inherent ML/TF risks. Where serious shortcomings in AML/CFT systems and controls are identified, the HKMA will continue to adopt a policy of early intervention by using a full range of supervisory tools and powers provided under the AMLO and the Banking Ordinance.

The HKMA will continue to support AML/CFT policy development, contribute to Hong Kong's first ML/TF risk assessment and review Hong Kong's legal and regulatory regime for AML/CFT purposes to ensure it is fully aligned with the latest international standards and practices. The HKMA will maintain a high level of industry engagement and work closely with industry associations to develop guidance on certain specific areas, such as trade finance.

### *Risk governance*

The HKMA will maintain regular supervisory interaction with the boards of directors and senior management of local retail banks to evaluate governance effectiveness and identify room for improvement.

#### *Supervision of treasury activities and liquidity risk*

Additional resources will be allocated to regularly monitor selected Als' treasury activities and funding conditions to identify potential market and liquidity risks, especially amid the commencement of the normalisation of interest rates in the US and other market dynamics. In particular, the HKMA will continue with the implementation of the Basel III liquidity regime and other supervisory initiatives to reduce the liquidity risk of the banking system. The HKMA will also assess the risk management capability of selected Als in dealing with contingency liquidity stress scenarios. In addition, the HKMA will continue to conduct on-site examinations and thematic reviews of selected Als' risk management measures against the risk of adverse market movements.

#### *Supervision of operational and technology risks*

To keep pace with the regulatory and industry sound practices, the HKMA will commence the revision of the SPM modules related to business continuity planning and outsourcing. Other policy guidance, including the periodic "Operational Incidents Watch", will be issued to further improve operational and technology risk management among Als.

The HKMA will continue to conduct risk-based on-site examinations and off-site reviews to identify major operational and technology risks and to examine the adequacy of Als' relevant risk management controls. These will focus on areas including cyber security risk management and the operational resilience of Als that are more important to the stability and effective functioning of Hong Kong's monetary and banking systems.

# Banking Stability

There will be further collaboration with the industry and other stakeholders in promoting the security awareness of bank customers when using e-banking services. The HKMA will also work with the industry to improve co-operation and sound practices in Als' card services and emerging payment products.

## ***Supervision of wealth management and MPF-related businesses***

The HKMA will:

- continue to communicate closely with other regulators and the banking industry to provide guidance on the standards the HKMA expects institutions to observe in the sale of investment and insurance products;
- continue to conduct on-site examinations and off-site surveillance of Als' conduct in the selling of securities, MPF and other investment and insurance products, including foreign exchange accumulators and NLTl products, as well as Als' compliance with new regulatory requirements;
- co-operate with the Government and the Insurance Authority on the preparatory work for implementing the new statutory regime for regulating insurance intermediaries; and
- maintain dialogue with, and provide guidance to, the industry to promote a customer-centric culture and good conduct within the banking sector.

## ***Supervisor-driven stress testing programme***

The HKMA will further develop and improve the supervisor-driven stress testing programme as one of the tools for supervising Als' capital management. Als are expected to further enhance their stress testing capability taking into account such matters as the experience gained in the supervisor-driven stress testing programme, and to better integrate their stress testing into the capital planning processes.

## ***Talent development***

The HKMA will continue working with the banking industry and the HKIB on the introduction of the ECF on AML/CFT in 2016. The HKMA will also initiate discussions with the industry and relevant professional bodies on its plan to launch similar competency frameworks for other streams of professional work in the banking sector. These are expected to include risk management, compliance and internal controls, treasury management, credit risk management and retail wealth management.

## ***Co-operation with overseas supervisors***

Major priorities will include working with the crisis management groups of internationally active banks on formulating recovery and resolution strategies and plans in accordance with the timetable set by the FSB. The HKMA will seek to ensure the timely sharing of bank-specific information with overseas supervisors on prudential and other matters, including the latest developments on liquidity and solvency positions. With the creation in 2014 of the Single Supervisory Mechanism in Europe, the HKMA is negotiating with the European Central Bank on the establishment of a memorandum of understanding for the exchange of supervisory information and co-operation.

## Implementation of Basel standards in Hong Kong

### Capital standards

The HKMA will develop a set of Banking (Capital) (Amendment) Rules 2016 (BCAR 2016) to incorporate into the BCR the Basel capital standards on banks' counterparty credit risk (CCR) exposure and equity investments in funds, taking into account comments received from the industry consultation at the end of 2015. Further industry consultation on the text of the amendments is expected to commence in the second quarter of 2016, with the rules being finalised for submission to the Legislative Council later in the year for negative vetting. The intention is for the amendments to become effective on 1 January 2017 in line with the Basel Committee timeline.

The Basel Committee published a set of *Revisions to the securitisation framework* in December 2014, and a consultation document on the *Capital treatment for "simple, transparent and comparable" securitisations* in November 2015. The HKMA intends to incorporate both the revised securitisation framework and the proposed capital treatment for simple, transparent and comparable securitisations into the BCR once finalised. Industry consultation on the policy proposals for local implementation is expected to be conducted in 2016.

The Basel Committee issued in January 2016 its final standards on *Minimum capital requirements for market risk*. This new set of market risk standards completes the Committee's fundamental review of the trading book and addresses shortcomings of the current standards identified in market stress periods of recent years. The HKMA's current intention would be to implement the revised market risk capital framework in accordance with the Basel Committee's timetable (i.e. implementation by national supervisors by 1 January 2019; reporting by banks under new standards from 31 December 2019). The HKMA plans to consult the industry on its implementation proposals for Hong Kong in due course, taking account of the progress of the Committee in finalising related standards that may have an impact on the revised market risk capital framework.

The Basel Committee has been undertaking a review of the current standardised approach for the calculation of capital requirements for credit risk. The review seeks to reduce reliance on external credit ratings, enhance granularity and risk sensitivity, update risk weight calibrations, and increase comparability with the IRB approach for the calculation of capital requirements for credit risk. The Basel Committee issued a second consultation document in December 2015 setting out further proposed revisions, having regard to comments received from a previous consultation on the same subject in December 2014.

## Implementation of Basel standards in Hong Kong (continued)

To streamline and enhance the risk-sensitivity of the current framework for calculating operational risk capital requirements, the Basel Committee has developed a new Standardised Measurement Approach to replace the three non-model-based approaches as well as the Advanced Measurement Approach under the current framework. A second consultation document was issued in March 2016 setting out further proposed revisions, having regard to comments received in response to the first consultation launched in October 2014.

The HKMA expects to implement the final standards in accordance with the Basel Committee timetable, and will develop policy proposals for this purpose, in consultation with the industry, once the final standards are issued by the Basel Committee.

### Disclosure standards

Implementation of the 2015 Pillar 3 Package (referred to in the box entitled "Implementation of Basel standards in Hong Kong" under "Review of 2015") will require amendment to the BDR and the release of supplementary guidance specifying the relevant standard templates and tables for disclosure. In order to adhere to the Basel Committee's timetable, the HKMA intends to develop the necessary legislative amendments and issue the guidance so that both will be applicable to AIs for their disclosures for the financial year ending on or after 31 December 2016.

As a continuation of its endeavours to update and consolidate regulatory disclosure requirements into a single coherent package, the Basel Committee released a second consultation document in March 2016 setting out proposals to consolidate and update existing disclosure requirements under Basel III, and specifying certain new requirements to enhance the Pillar 3 framework.

### Liquidity standards

Following the implementation of the LCR and LMR, the HKMA will make corresponding revisions to the two SPM modules relating to liquidity risk management during 2016. Moreover, under the Basel Committee's timeline, the Net Stable Funding Ratio (NSFR), which is the second of the two liquidity ratios (alongside the LCR) specified in the Basel III standard, is scheduled to be implemented on 1 January 2018. The HKMA has been conducting quantitative impact studies on the NSFR and intends to consult the industry in 2016 on policy proposals for local implementation.

## Development of Supervisory Policies

### Counterparty credit risk

The HKMA intends to issue a revised SPM module on “Counterparty Credit Risk Management” for industry consultation during 2016. The revisions will bring the module’s guidance in line with the latest capital treatment for CCR under the BCR, including the changes to be introduced by the proposed BCAR 2016, and will reflect recent developments in CCR management practices.

### Corporate governance

The FSB issued a set of *Principles for an Effective Risk Appetite Framework* and *Guidance on Supervisory Interaction with Financial Institutions on Risk Culture* in November 2013 and April 2014, respectively, to promote sound risk governance at financial institutions. This was followed in July 2015 with the issuance by the Basel Committee of a final document on *Corporate governance principles for banks*. The HKMA is updating the SPM module “Corporate Governance of Locally Incorporated Authorized Institutions” to reflect the latest international standards and will consult the industry during 2016 on the text of the revised module.

### Exposure limits

The HKMA issued a consultation paper on proposed revisions to the exposure limits framework in March 2016 and intends to follow up during the year with a local quantitative impact study to test the impact of the policy proposals. An amendment bill will be required to amend Part XV of the Banking Ordinance and the law drafting process will commence during the year.

### External audits of banks

In March 2014, the Basel Committee issued revised supervisory guidance on the *External audits of banks*. The guidance aims to improve audit quality by raising the bar in relation to what supervisors expect from banks’ external auditors and audit committees. The HKMA intends to issue updated supervisory guidance for AIs that will reflect this new international standard.

### Updating other supervisory policies and risk management guidelines

In addition to those SPM modules specifically mentioned above, the HKMA also plans to update a selection of other modules to incorporate the latest guidance issued by the Basel Committee and other international standard-setters. These include the SPM modules on: the Pillar 2 supervisory review process; general risk management controls; internal audit and compliance functions; and the validation of risk-rating systems under the IRB approach for credit risk.

# Banking Stability

## Recovery and resolution

The HKMA will work closely with the FSTB, the SFC and the Insurance Authority to secure the passage of the FIRB by the Legislative Council. The FIRB makes provision for the issuance of several sets of subsidiary legislation in the form of rules and regulations on various aspects of the resolution regime as well as for the publication of a code of practice to provide greater detail on how a resolution authority would expect to exercise the powers conferred on it under the FIRB. The HKMA will participate in the development of such rules, regulations and code.

In parallel with the legislative process, the HKMA will also be working to develop the necessary methodologies, processes and procedures to make the proposed new resolution regime operational.

In this regard, the HKMA will continue with the implementation of “recovery planning” for AIs and will complement this with the development of frameworks for the conduct of resolution planning and the assessment of AIs’ resolvability. For this purpose, an SPM module “Resolution Planning” will be issued for industry consultation in spring 2016.

In relation to resolution planning at the international level, the HKMA will continue its participation in the various CMGs of which it is a member. Also at the international level, the HKMA will continue to contribute to FSB and other working groups focused on the development of resolution policy and the means by which resolution can be made operationally feasible and credible.

## Accounting standards

With the impending application of IFRS 9 to banks, the HKMA will update its prudential framework for AIs as appropriate, taking into account the new supervisory guidance on accounting for expected credit losses issued by the Basel Committee. Part of this work will include considering the need to make amendments to banking returns, loan classifications and inputs into the regulatory capital calculation. The HKMA will maintain close contact with the HKICPA and the banking industry as it prepares for the implementation of IFRS 9.

## Bank consumer protection

The HKMA will continue to promote good banking practices through participation in and providing advice to the Code of Banking Practice Committee. It will monitor AIs’ implementation of the revised Code and will review AIs’ compliance with the Code through on-site examinations and handling relevant complaints on AIs.

The HKMA will continue its effort in developing a customer-centric culture among AIs and fostering financial inclusion by retail banks under the Treat Customers Fairly Charter, especially securing reasonable access to basic banking services by members of the public. The HKMA will also continue to participate in international efforts to drive better protection for financial consumers through participation in the Organisation for Economic Co-operation and Development (OECD) Task Force on Financial Consumer Protection.

## Bank consumer education

Further initiatives will be launched under the HKMA’s Consumer Education Programme, including the production of new video and audio clips, to encourage the public to be smart and responsible in the use of banking services. New activities will be introduced to promote financial literacy and responsible spending to the youth generation. In addition, the HKMA will continue to collaborate with other stakeholders to maximise the impact of consumer education.

## Credit data sharing

The HKMA will work with the industry to promote credit data sharing, as its continued development will help strengthen the credit risk management capacity of AIs.

## Deposit protection

The Deposit Protection Scheme (Amendment) Bill 2015 was introduced into the Legislative Council on 25 November 2015. Various operational functions of the DPS are being reviewed to identify areas where adjustments are necessary to ensure a smooth transition to the gross payout approach upon passage of the Bill. The relevant preparations include revising the contribution assessment and reporting requirements of Scheme members, as well as updating the payout system and procedures. There will also be co-ordination with the banking industry for any system changes required for Scheme members to submit deposit records for determining deposit compensation payment on a gross basis.

The compliance programme for monitoring Scheme members' readiness to submit data in accordance with the information system requirements will continue. Six compliance reviews and simulation tests will be conducted in 2016. Self-assessments and on-site examinations will continue to be employed to monitor the compliance of Scheme members with the representation requirements on DPS membership and protection status of financial products. Taking the opportunity of the 10th anniversary of the DPS in 2016, publicity strategies will be devised to further boost public awareness and understanding of the DPS.

## Enforcement

In addition to deploying resources to handle any mis-selling cases, the HKMA will deploy additional resources to handle enforcement functions under the AMLO and other Ordinances.

The HKMA will continue to closely monitor potentially systemic conduct-related issues of AIs through the complaints received and, where appropriate, take prompt action to contain or mitigate any adverse consequences; and to alert the industry and share information with the public to enhance awareness.

## Director empowerment programme

After the forthcoming consultations with the industry on the study group's recommendations on how INEDs can be properly equipped and empowered to discharge their duties, the HKMA expects to issue relevant guidance. The HKMA will also continue to work closely with the industry to further enhance the director empowerment programme and launch further initiatives, where appropriate, to help facilitate the performance of the role of INEDs.

## Oversight of financial market infrastructures

The HKMA will continue to promote the safety and efficiency of the FMIs under its oversight in accordance with the PSSVFO and the relevant international requirements.

It will work with the FMIs on their observance of the PFMI. Assessments will be conducted on an ongoing basis, and the HKMA will continue participating in the CPMI-IOSCO PFMI implementation monitoring and assessment exercise. Where appropriate, oversight requirements will be strengthened to reflect international practices or in response to market developments.

# International Financial Centre

The global economic and financial environment was fraught with challenges in 2015, calling for closer international collaboration and communication to maintain stability. During the year, the HKMA continued to actively participate in international and regional forums while sparing no effort in raising Hong Kong's competitiveness as an international financial centre, including enhancing our financial infrastructure, optimising the regulatory and tax regime, and capitalising on the internationalisation of the renminbi to further develop offshore renminbi business. Hong Kong's strong economic fundamentals and robust fiscal performance continued to be recognised by credit rating agencies with Standard & Poor's maintaining its top-rated AAA rating for Hong Kong.



## OVERVIEW

The HKMA actively contributes to international discussions on issues of significance to global and regional financial stability. In July, it assumed co-chairmanship of the Financial Stability Board<sup>1</sup> Regional Consultative Group for Asia (FSB RCG(A)) for a two-year period. The Group's aim is to promote interaction between FSB members and non-members on policy initiatives, encourage implementation of financial reforms and facilitate the exchange of views on financial stability issues. The HKMA continued to work closely with the ASEAN+3<sup>2</sup> authorities to strengthen the operations of the ASEAN+3 Macroeconomic Research Office (AMRO) — which has been upgraded to an international organisation — to monitor and analyse regional economies and support decision-making of the Chiang Mai Initiative Multilateralisation (CMIM)<sup>3</sup>.

During the year, Hong Kong's offshore renminbi pool and bond issuance experienced some contraction due to a number of market factors. However the market continued to function orderly, and renminbi trade settlement, bank lending and foreign exchange turnover maintained steady growth. In addition, the growing renminbi business conducted in and through Hong Kong contributed to the recognition of the renminbi by the International Monetary Fund (IMF) as a freely usable currency. The IMF's decision to include it in the Special Drawing Right (SDR) currency basket will add impetus to the internationalisation of the renminbi as well as the further development of the offshore market in Hong Kong.

The safe and efficient operation of Hong Kong's financial infrastructure and its continued development play a significant role in reinforcing the competitive edge of Hong Kong as an international financial centre and the global offshore renminbi business hub. The turnover of the renminbi payment system in Hong Kong hit new highs in 2015, while the trade repository for over-the-counter (OTC) derivatives continued to support entities to report their OTC derivatives transactions as required under the new OTC derivatives market regulatory regime, which was introduced in July.

Hong Kong's financial infrastructure was further enhanced by the HKMA in 2015 with new components and services, including the successful launch of the e-Cheque service in December, which means that over 150 banks are now capable of receiving and processing e-Cheques from their customers through the Internet and mobile channels. The electronic bill presentment and payment (EBPP) service, which was launched in 2013, continued to see growth in merchant participation in 2015. In July, the Central Moneymarkets Unit (CMU) launched a service under its Fund Order Routing Service to support the implementation of the Mainland – Hong Kong Mutual Recognition of Funds (MRF). And, the regulatory framework for retail payment products and services was improved with the commencement in November of the Payment Systems and Stored Value Facilities Ordinance (PSSVFO). Under the PSSVFO, the HKMA is empowered to implement a mandatory licensing regime for multi-purpose stored value facilities and perform relevant supervision and enforcement functions, as well as designating important retail payment systems to ensure their safe and efficient operation under prudential regulation.

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

<sup>2</sup> ASEAN+3 comprises 10 ASEAN member countries (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam), together with Mainland China, Japan and South Korea.

<sup>3</sup> Effective March 2010, the CMIM has become a regional mechanism that provides short-term US dollar support to participants facing liquidity shortages. In May 2012, the facility was enhanced by doubling the access fund to US\$240 billion and introducing a crisis prevention facility.

# International Financial Centre

## REVIEW OF 2015

### International and regional co-operation

With increased connections among global financial markets, the HKMA proactively fosters co-operation with other jurisdictions in promoting sustainable economic growth and financial system stability through international and regional forums including the FSB, the Bank for International Settlements (BIS) and the Asia-Pacific Economic Co-operation (APEC). The HKMA also continues to implement global financial regulatory reforms, including the recommendations of the G20, to help strengthen the resilience of the global financial system.

The HKMA became a co-chair of the FSB RCG(A) in July and hosted its ninth meeting in Hong Kong in October. The RCG(A) serves as an important platform for FSB members and non-FSB members to communicate and co-operate on financial stability issues. Senior representatives from finance ministries, central banks and financial regulators of 16 Asian jurisdictions attended the meeting to discuss risks facing the region, the implications of increasing asset management activities, misconduct risk and experience with deposit insurance schemes. The HKMA also co-chaired a workshop on macroprudential policies in Hong Kong in August. The workshop was organised by the Committee on the Global Financial System (CGFS)<sup>4</sup>, and attended by representatives from 18 central banks from around the world. Participants shared their experiences in macroprudential policies, focusing on the calibration and evaluation of tools, their interaction with monetary policy, and possible spillover effects. The HKMA also co-hosted a conference with the Bank of England and the IMF, featuring discussions on the challenges that central banks and other policymakers face in choosing the optimal mix of monetary, macroprudential and microprudential policies. The conference was attended by over a hundred participants, including representatives from academia, central banks and international financial institutions.

<sup>4</sup> The CGFS is one of the standing committees supported by the BIS with a mandate to monitor and examine broad issues relating to financial markets and the global financial system.

### Promoting monetary and financial stability in Asia

The HKMA maintained its commitment to regional co-operative initiatives to promote financial stability in Asia and to harness the region's collective voice in international financial affairs. As a co-ordinator of the macro-surveillance work for the Monetary and Financial Stability Committee established under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP)<sup>5</sup>, the HKMA continued to prepare the Committee's half-yearly Macro-Monitoring Report to assess the region's risks and vulnerabilities and the policy implications. As Chair of the EMEAP Working Group on Payment and Settlement Systems, the HKMA worked closely with the Deputy Chair to co-ordinate the Group's effort in sharing experiences and exchanging information on risk management, oversight, standards and best practices, and developments in domestic and cross-border payment and settlement systems. It also led the Working Group's sub-group on cross-border co-operation and development. The HKMA hosted meetings of the EMEAP/BIS Forum on Foreign Exchange Markets and the EMEAP Working Group on Financial Markets (WGFM) in Hong Kong in June. Attended by representatives from 17 authorities from the region and major economies, the meetings reviewed the latest developments in financial markets and financial regulatory reforms.

Following the signing of the AMRO Agreement by Hong Kong and the ASEAN+3 authorities last year, AMRO was upgraded to an international organisation in February 2016 to support its pivotal role under the enhanced CMIM.

### Hong Kong's credit ratings

The HKMA continued to maintain close dialogue with international credit rating agencies to present a balanced assessment of Hong Kong's economic performance and fiscal strength. These efforts contributed to the affirmation of Hong Kong's credit ratings by all major credit rating agencies in 2015. Standard & Poor's affirmed its highest AAA rating for Hong Kong, reflecting the

<sup>5</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. The Monetary and Financial Stability Committee reviews economic and financial developments in the Asia-Pacific region, discusses issues of common interest and reflects common views.

agency's recognition of Hong Kong's above-average growth prospects for a high-income economy, sizable fiscal reserves, consistently healthy fiscal performance and strong net external asset position. Moody's Investors Service and Fitch Ratings also maintained Hong Kong's ratings at Aa1 and AA+ respectively, just one notch below triple-A.

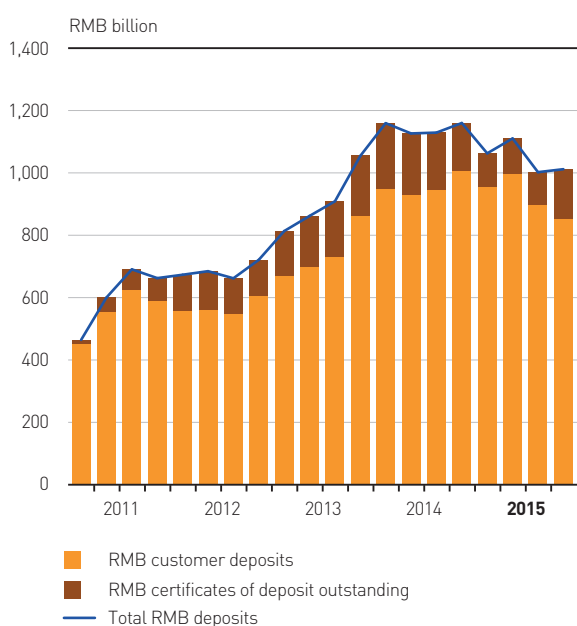
### Development of Hong Kong as the offshore renminbi business centre

In 2015, market factors had an impact on Hong Kong's renminbi pool. At the end of the year, outstanding renminbi customer deposits and certificates of deposit stood at RMB1,010 billion, as compared with RMB1,158 billion a year ago (Chart 1). Offshore renminbi bond issuance moderated amid declining interest rates in the onshore market. As a result, issuance of renminbi bonds in Hong Kong dropped to RMB75 billion. On the other hand, renminbi trade settlement transactions handled by banks in Hong Kong expanded by 9% to RMB6,833 billion. The outstanding amount of renminbi bank loans also increased by 58% year-on-year to RMB297 billion (Chart 2). Average daily turnover in the renminbi Real Time Gross Settlement (RTGS) system increased to RMB947 billion, up 29% from 2014. At the same time, the

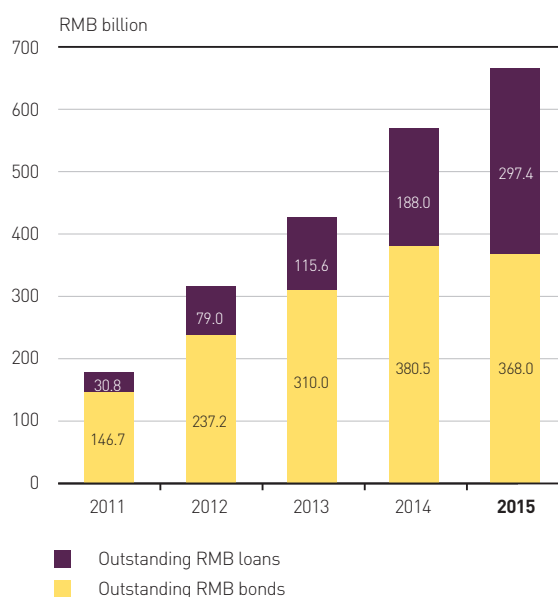
offshore renminbi foreign exchange market saw further growth in Hong Kong, with survey results indicating a daily turnover of some US\$93 billion equivalent at the end of April 2015, an increase of 88% from April 2013 when the last BIS Triennial Survey was conducted. Hong Kong remained the largest offshore renminbi business hub with a market of considerable depth and breadth. Another significant development reinforcing this position was the implementation of the MRF initiative in July, which has expanded Hong Kong's renminbi product offering.

The HKMA's policy initiative to expand channels for cross-border renminbi fund flows and its joint efforts with the industry to enhance Hong Kong's renminbi financial platform continued to bear fruit. In June, the People's Bank of China (PBoC) announced that offshore renminbi business clearing banks and participating banks would be allowed to conduct repo transactions in the onshore interbank bond market and remit proceeds offshore, to facilitate renminbi liquidity management by banks in the offshore market. In September, the PBoC relaxed the rules on cross-border renminbi cash pooling, enabling more multinational corporations to conduct intra-group cash transfers under streamlined arrangements. The Mainland authorities also granted foreign central banks,

**Chart 1 Renminbi customer deposits and certificates of deposit**



**Chart 2 Renminbi financing activities**



# International Financial Centre

international financial institutions and sovereign wealth funds wider access to the onshore interbank bond market in July. They further opened up the Mainland's foreign exchange market to these institutions in September.

On 30 November, the IMF announced its decision to include the renminbi in the SDR currency basket with effect from 1 October 2016. The decision affirms the renminbi's status as a freely usable currency, and further promotes confidence in the use of the renminbi for global transactions. As an international financial centre and the global offshore renminbi business hub, Hong Kong will benefit from new business opportunities arising from the further internationalisation of the renminbi and the Mainland's enhanced connection with the global economic and financial systems.

Hong Kong continued to reinforce its collaboration on renminbi business with other jurisdictions throughout the year. The HKMA co-hosted the third RMB Trade and Investment Dialogue with Australia and the fifth RMB Business Forum with London, and worked with Malaysia and Thailand for the second time in facilitating private sector discussions on renminbi business. Through these initiatives, banks in Hong Kong strengthened their renminbi business flows and linkages with other markets, which will bring more renminbi business to Hong Kong. The HKMA also stepped up its marketing efforts to promote the wider use of renminbi in trade, investment and financing among corporations and institutions through participation in industry events in Hong Kong and in overseas markets including Canada, Japan and Africa.



Deputy Chief Executive of the HKMA, Mr Eddie Yue, speaks at a seminar during the fifth meeting of Hong Kong-London RMB Forum on 11 December 2015.

## CEPA

A new agreement to achieve basic liberalisation of trade in services between Mainland China and Hong Kong was signed in November under the framework of the Closer Economic Partnership Arrangement (CEPA). The agreement extends most of the pilot liberalisation measures introduced in Guangdong in 2014 nationwide. By according national treatment, in principle, to Hong Kong banks, the new agreement is expected to provide these banks with more policy certainty and greater flexibility when conducting business in Mainland China.

## Training

The HKMA continued to provide training programmes for officials from the PBoC, the State Administration of Foreign Exchange and the China Banking Regulatory Commission. In addition to programmes dealing with central banking and general risk management, topics included consumer protection, credit reference, monetary and collateral management, financial soundness indicators analysis, and systemic risk monitoring. Ad hoc training sessions were also conducted for delegations from overseas banking and law enforcement agencies.

## Government Bond Programme

During the year, the HKMA arranged eight tenders of institutional government bonds amounting to HK\$20.4 billion. By the end of 2015, the total amount of outstanding institutional bonds was HK\$68.9 billion.

Following the Government's 2015-16 Budget, the HKMA arranged in August the issuance of HK\$10 billion 3-year inflation-linked retail bonds (iBonds) to Hong Kong residents. It was the fifth consecutive series of iBonds since 2011. The latest issue attracted a record 597,000-plus applications with application monies exceeding HK\$35 billion. The amount of retail bonds outstanding at the end of the year was HK\$30 billion.

### **Development of Islamic finance**

To stimulate further development of the Islamic bond (sukuk) market in Hong Kong, the HKMA, acting as the Government's representative, issued the second US\$1 billion 5-year Government sukuk in June 2015 under the Government Bond Programme.

The sukuk attracted orders of US\$2 billion from a diverse group of 49 international institutional investors. The offer was priced at 1.894%, which gave the Government a cheaper funding cost than the 2.005% for the inaugural sukuk issue in 2014. Demonstrating the flexibility of Hong Kong's issuance platform, the sukuk was in the Wakalah structure, making Hong Kong the first AAA-rated government sukuk issuer to adopt this structure.

Throughout the year, the HKMA continued to raise market awareness and knowledge of Islamic finance by organising and participating in Islamic finance conferences and seminars, and sharing its sukuk issuance experience with enterprises with funding needs.

### **Promotion of asset management business**

To promote Hong Kong's asset management industry and bolster its position as a leading asset management centre, the HKMA continues to work with the Government and other regulators to improve the international competitiveness of Hong Kong's financial markets and provide a more favourable tax and regulatory environment for these businesses. In doing this, the HKMA maintained contact with the industry and relevant government agencies to assist in the formulation, review and implementation of policies to further develop Hong Kong's platform as an asset management hub. During the year, it assisted the Government in enacting the Inland Revenue (Amendment) (No. 2) Ordinance 2015, which extends the profits tax exemption for offshore funds to private equity funds, in order to attract private equity fund managers to expand their business in Hong Kong.

The HKMA visited asset owners, asset managers and service providers in major financial centres around the world to highlight the latest developments in Hong Kong and the region, and to learn more about their business plans for Asia. The feedback from these meetings

provides important insight into the development or further refinement of policies to enhance Hong Kong's financial services platform.

### **OTC derivatives market regulation**

Following the passage of the Securities and Futures (Amendment) Ordinance 2014, the HKMA and the Securities and Futures Commission (SFC) have been developing the detailed rules for implementing the regulatory regime for the OTC derivatives market in Hong Kong. The regime aims to reduce systemic risk and enhance transparency in the OTC derivatives market. The first stage of the implementation took effect in July 2015 and covered the mandatory reporting and related record keeping obligations. Subsequently, a consultation paper was released in September on the detailed proposals for introducing mandatory clearing, and expanding the product scope of mandatory reporting.

The HKMA participated in several international forums, including the OTC Derivatives Working Group, established under the FSB, and the OTC Derivatives Regulators' Forum, contributing to the relevant international initiatives and closely monitoring international regulatory developments. Contact was maintained with overseas regulators, through both bilateral and multilateral channels, to discuss cross-border issues arising from the implementation of the OTC derivatives reforms.

### **Development of corporate treasury centres (CTCs)**

To attract multinational and Mainland enterprises to establish CTCs in Hong Kong for their group companies, the Financial Secretary announced in the 2015-16 Budget that the Inland Revenue Ordinance would be amended to allow, under specified conditions, interest deductions under profits tax for CTCs, and reduce profits tax for specified treasury activities by 50%. To implement the initiative, the HKMA worked with the Financial Services and the Treasury Bureau and the Inland Revenue Department to prepare the draft legislation and consulted the industry, including the Corporate Treasury Development Working Group under the Treasury Markets Association. The Inland Revenue (Amendment) (No. 4) Bill 2015 was introduced into the Legislative Council in December.

# International Financial Centre

In addition to the legislative work, the HKMA has been actively promoting the benefits of Hong Kong as a regional location for CTCs to Mainland and global corporations, banks, and service providers. By the end of the year, it had met with over 170 corporations, financial institutions and industry associations.

## Treasury Markets Association (TMA)

The HKMA collaborates and provides necessary strategic support to the TMA in developing Hong Kong's treasury markets. The TMA's aims are to raise market professionalism, facilitate market development, encourage the evolution of new markets and products, and strengthen Hong Kong's ties with Mainland China and with financial centres around the world. At the end of 2015, the Association had 1,521 Individual Members and 82 Institutional Members from banks, investment houses, asset managers, insurance companies, money brokers, financial information services providers, exchanges and large corporations. During the year, the TMA was involved in a number of important tasks including:

- **Reforming the determination mechanism for the Association's financial benchmarks** — In light of the latest international recommendations on financial benchmark reforms, the Association considered and consulted the market on developing a more transactions-based determination mechanism for Hong Kong's foreign exchange benchmarks. It also initiated work on studying the feasibility of reforming Hong Kong's major interest rate benchmarks along the lines of the latest international recommendations, having regard to local market conditions.
- **Strengthening the governance of existing financial benchmarks and developing new ones** — The TMA continuously refines the administration and control frameworks for its interest rate and foreign exchange benchmarks. During the year, it developed and issued additional policies on consultation, conflicts of interest, whistleblowing, and complaints. After consulting the industry, the TMA also launched the Renminbi Bond Indicative Quotes to replace the Renminbi Bond fixings, in an effort to promote the continuous price transparency of the market.

- **Enhancing the conduct and professionalism of market participants** — The TMA worked with foreign exchange committees of other major markets to develop new "Global Preamble: Codes of Best Practices and Shared Global Principles", featuring detailed and globally harmonised guidance on personal conduct, confidentiality and market conduct, and execution practices for market participants. The Global Preamble was issued in March 2015.
- **Co-organising the Treasury Markets Summit with the HKMA** — The Summit was held in September and focused on the evolution of the renminbi into an investment currency, the critical roles played by CTCs in the "Belt and Road" development, and the enhancement of market competence in the face of market and regulatory developments.



Deputy Chief Executive of the HKMA, Mr Peter Pang (middle), officiates at the Treasury Markets Summit 2015 on 16 September 2015.

## Hong Kong's financial infrastructure

The HKMA plays a key role in developing Hong Kong's financial infrastructure to maintain our status as a regional hub for payment and settlement of funds and securities. Each year, significant effort and resources are devoted to building a robust and efficient multi-currency, multi-dimensional platform, with extensive domestic and overseas system linkages (Chart 3).



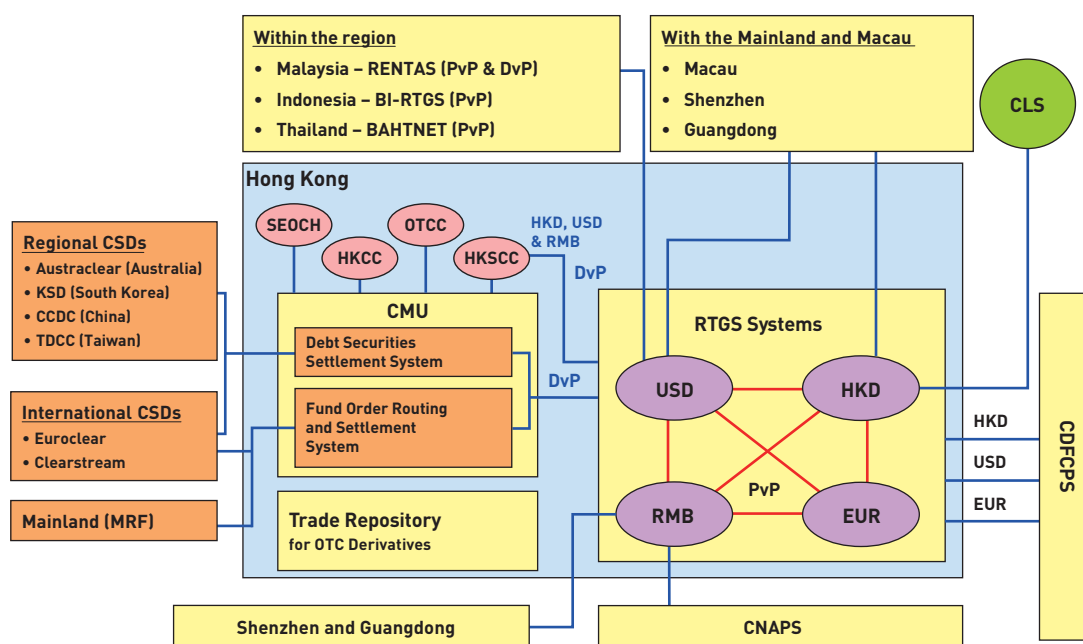
Development highlights over the years include the establishment of RTGS systems for the Hong Kong dollar, the US dollar, the euro and the renminbi, and the development of bilateral links between the local RTGS systems and overseas RTGS systems, and between the CMU and regional and international Central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

In response to industry demands and international developments, new components have been added to broaden the scope and increase the depth of Hong Kong's financial infrastructure. For example, an order routing and settlement system for investment funds was introduced

in 2009, which was expanded in 2015 to support the MRF between Mainland China and Hong Kong. And, a trade repository for OTC derivatives was introduced in 2012.

The infrastructure has been implemented in compliance with relevant international standards and best practices. Disclosure reports for Hong Kong's RTGS systems, the CMU and the trade repository for OTC derivatives have been published since July 2014, October 2014 and September 2015 respectively, and updated periodically as appropriate, in accordance with the disclosure framework under the international principles on financial market infrastructures jointly issued by the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO).

**Chart 3 Hong Kong's multi-currency payment and settlement infrastructure**



BAHTNET - Bank of Thailand Real Time Gross Settlement (Thailand's baht RTGS system)  
 BI-RTGS - Bank Indonesia Real Time Gross Settlement (Indonesia's rupiah RTGS system)  
 CCDC - China Central Depository & Clearing Co., Ltd. (settlement system for fixed income securities in China)  
 CD/FCPS - China's Domestic Foreign Currency Payment System (RTGS system for foreign currency payment in China)  
 CLS - Continuous Linked Settlement (global multi-currency cash settlement system)  
 CMU - Central Moneymarkets Unit (settlement system for debt securities)  
 CNAPS - China National Advanced Payment System (RMB RTGS system in China)  
 HKCC - HKFE Clearing Corp Ltd (central counterparty providing clearing and settlement for futures)  
 HKSCC - HK Securities Clearing and Co Ltd (operator of the clearing and settlement system for shares)  
 KSD - Korean Securities Depository (Korea's central securities depository)  
 MRF - Mutual Recognition of Funds  
 OTCC - OTC Clearing Hong Kong Limited (central counterparty providing clearing and settlement for OTC derivatives)  
 RENTAS - Real Time Electronic Transfer of Funds and Securities (Malaysia's ringgit RTGS system)  
 SEOCH - SEHK Options Clearing House Ltd (central counterparty providing clearing and settlement for options)  
 TDCC - Taiwan Depository and Clearing Corporation (Taiwan's securities settlement system)

DvP - Delivery-versus-Payment  
 PvP - Payment-versus-Payment

# International Financial Centre

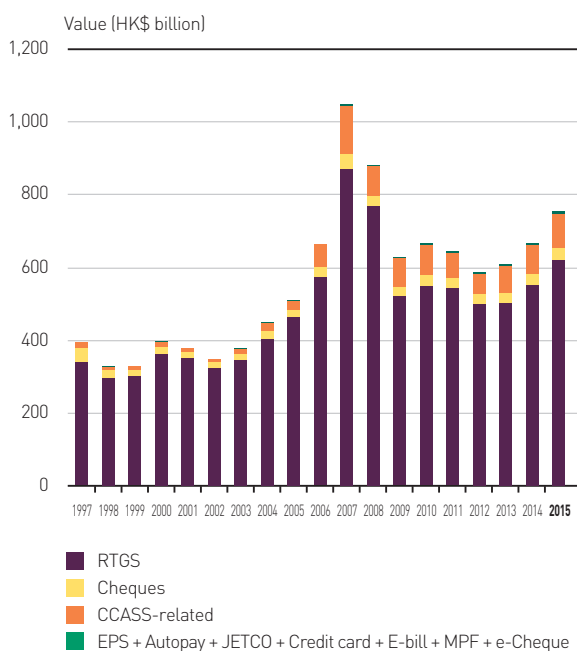
## Hong Kong dollar RTGS system

The Hong Kong dollar Clearing House Automated Transfer System (CHATS), which operates on an RTGS basis, is responsible for clearing all Hong Kong dollar interbank payments. It continued to run smoothly and efficiently in 2015. It has a direct link with the CMU to provide delivery-versus-payment (DvP) settlement services. Hong Kong Interbank Clearing Limited (HKICL), the operator of the RTGS systems, was established in 1995 and is owned jointly by the HKMA and the Hong Kong Association of Banks (HKAB). In 2015, the HKICL processed a daily average of HK\$627 billion in CHATS transactions (28,125 items), compared with HK\$558 billion (26,134 items) in 2014.

In addition to settling large-value payments, CHATS also handles daily bulk clearings of stock market transactions, Mandatory Provident Fund (MPF) schemes' switching transactions, credit card transactions, cheques, small-value bulk electronic payment items (EPS, auto-credit and auto-debit transactions) and automatic teller machine transfers (Chart 4).

Banks can use their Exchange Fund Bills and Notes (EFBN) to obtain interest-free intraday liquidity through intraday repo transactions with the HKMA to settle their interbank payments.

**Chart 4** Hong Kong dollar RTGS system average daily turnover



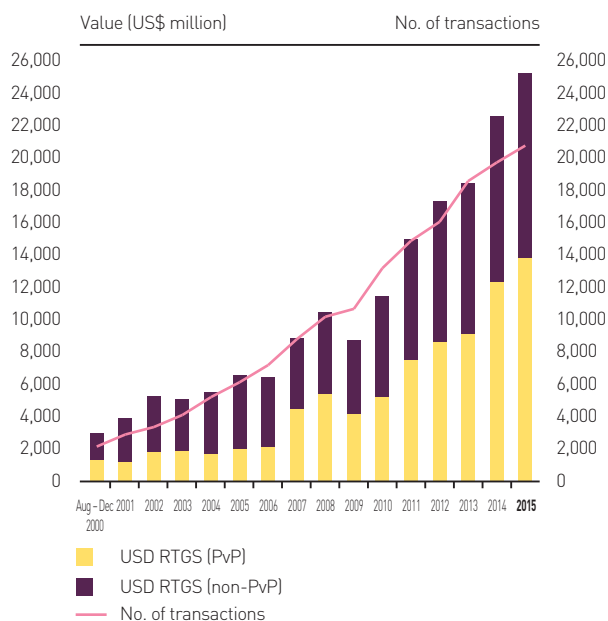
## Foreign currency RTGS systems in Hong Kong

The US dollar, euro and renminbi RTGS systems all operated smoothly. Amid the expansion of renminbi business in Hong Kong, the average daily turnover of the renminbi RTGS system hit record highs in 2015, rising to a daily average of RMB947 billion, up 29% from the 2014 daily average of RMB733 billion. Indeed, the momentum accelerated in the latter part of the year with the daily average reaching a high of RMB1,173 billion in September before settling at RMB963 billion in December.

The cut-off time of the renminbi RTGS system has been extended in phases since June 2012 from 6:30 p.m. to 5:00 a.m. the next day (Hong Kong time), providing a total of 20.5 hours for same-day value payments. The extension allows financial institutions in other parts of the world a much longer operating window to settle offshore and cross-border renminbi payments through Hong Kong's infrastructure. The average daily value of the transactions processed during the extended window grew significantly from RMB22.3 billion in 2014 to RMB43.2 billion in 2015. This has come on the back of the development of renminbi business globally and the continuous momentum in the internationalisation of the renminbi.

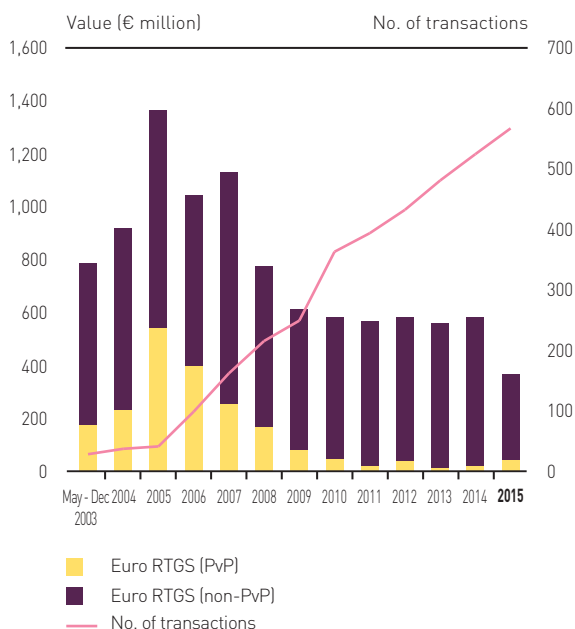
The average daily turnover and other details of the foreign currency RTGS systems are listed in Charts 5-7 and Table 1.

**Chart 5** US dollar RTGS system average daily turnover

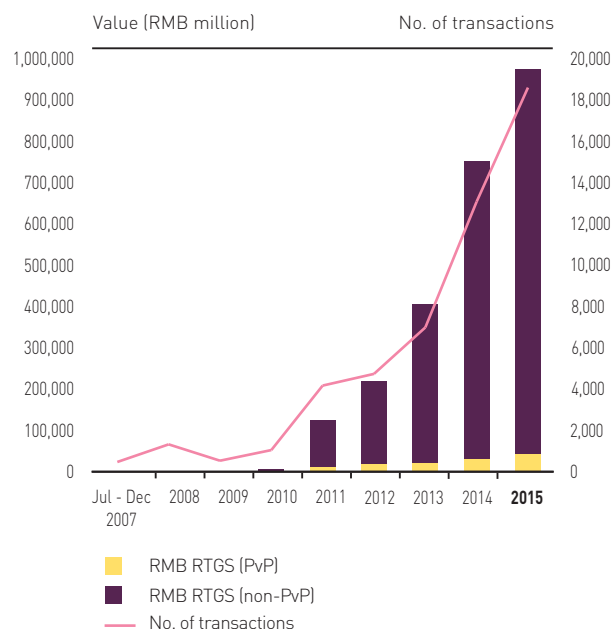




**Chart 6 Euro RTGS system average daily turnover**



**Chart 7 Renminbi RTGS system 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 2015	Average daily turnover in 2015	Average daily transactions in 2015
US dollar RTGS system	August 2000	The Hongkong and Shanghai Banking Corporation Limited	Direct: 100 Indirect: 119	US\$24.7 billion	20,372
Euro RTGS system	April 2003	Standard Chartered Bank (Hong Kong) Limited	Direct: 37 Indirect: 18	€371.0 million	572
Renminbi RTGS system	June 2007	Bank of China (Hong Kong) Limited	Direct: 219	RMB947.0 billion	18,091

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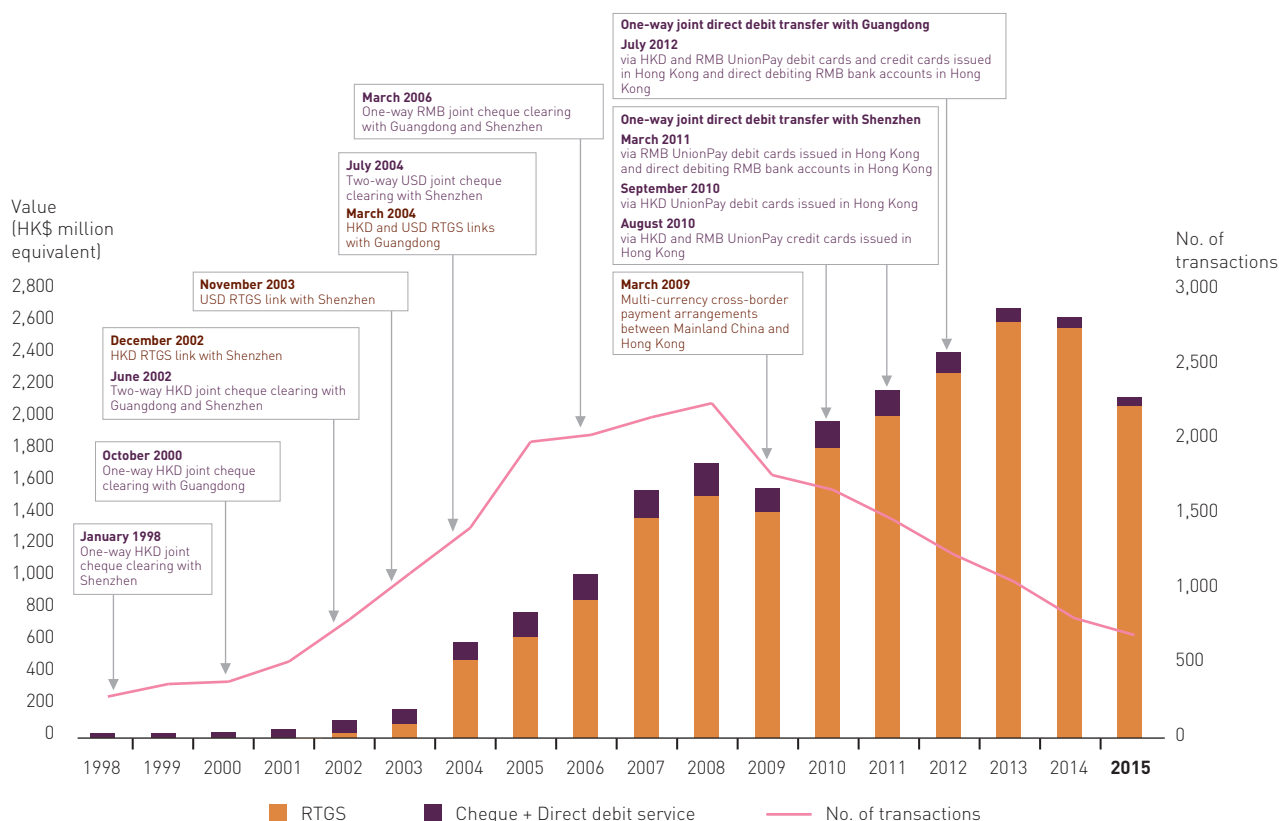
## Payment-versus-payment (PvP)

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 three cross-border PvP links, with Malaysia's ringgit RTGS system (2006), Indonesia's rupiah RTGS system (2010) and Thailand's baht RTGS system (2014). 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 2015, the transaction value of Hong Kong dollar, US dollar, euro and renminbi-related PvP transactions amounted, respectively, to about HK\$5,105 billion, US\$3,203 billion, €9 billion and RMB9,756 billion.

## Payment links with Mainland China

The HKMA continues to work closely with Mainland authorities in providing efficient cross-border payment links to meet the growing demands. In 2015, the average daily turnover handled by the various system links was equivalent to HK\$2.1 billion, including the RTGS cross-border links with the Mainland's Domestic Foreign Currency Payment Systems launched in 2009 (Chart 8). The RTGS system links with Shenzhen and Guangdong handled more than 17,000 transactions during the year, with a total value equivalent to HK\$481 billion. The links allow 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 8** Average daily turnover in cross-border arrangements with Mainland China



The two-way joint cheque-clearing facilities processed about 140,000 Hong Kong dollar and US dollar cheques in 2015, with a value equivalent to HK\$14 billion. The facilities shorten the clearing time for cheques drawn on banks in Hong Kong and presented in Shenzhen and Guangdong. 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 2015, renminbi cheques with a total value equivalent to around HK\$4 million were cleared.

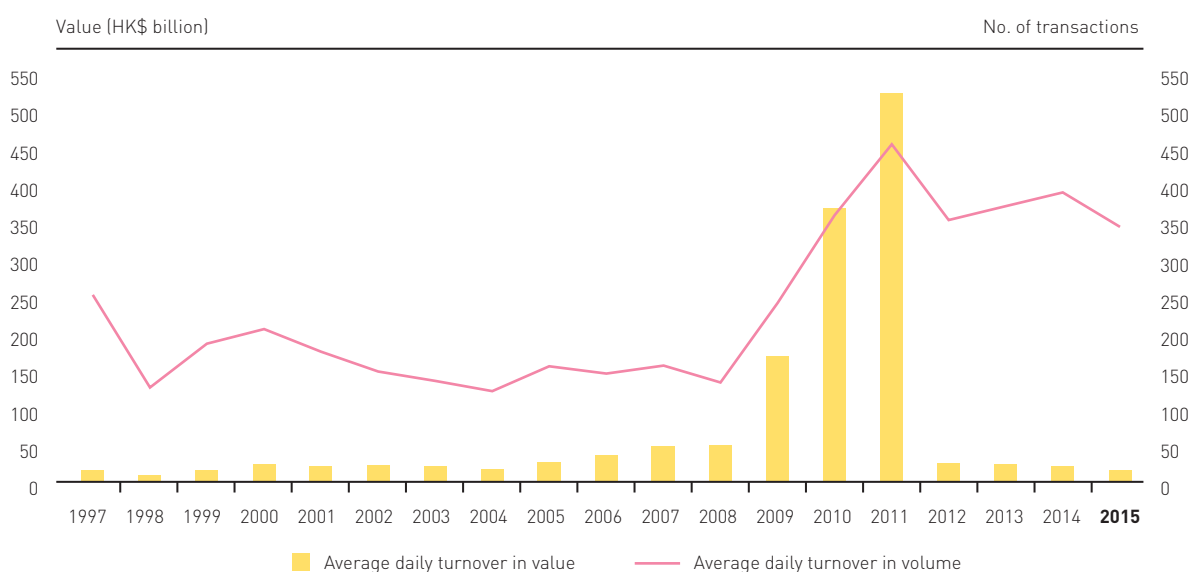
### Payment links with Macau

The one-way joint clearing facility for Hong Kong dollar cheques between Hong Kong and Macau was launched in 2007 and a similar facility for US dollar cheques was launched the following year. 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 2015, Hong Kong dollar cheques with a total value of about HK\$20 billion and US dollar cheques with a total value of about US\$31 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, while Hong Kong investors are able to hold and settle foreign securities held with CSDs outside Hong Kong. In 2015, the CMU processed an average daily value of HK\$16 billion (349 transactions) in secondary market transactions (Chart 9). Among the debt securities lodged with the CMU at the end of the year, the outstanding amount of EFBNs was HK\$828 billion and the total amount of other debt securities was equivalent to HK\$1,040 billion, of which renminbi debt securities amounted to RMB354 billion.

**Chart 9** CMU secondary market turnover



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## **Financial infrastructure development**

The HKMA completed a number of projects in 2015 to improve the safety and efficiency of Hong Kong's financial infrastructure, and to capture new business opportunities.

### ***New messaging service for Hong Kong's renminbi RTGS system***

To reinforce Hong Kong's role as the global offshore renminbi business hub and to improve the efficiency of payments made by worldwide indirect bank users (Global Users) in Hong Kong's renminbi RTGS system, particularly during the extended operating hours from 6:30 p.m. to 5:00 a.m. the next day, a new messaging service was introduced in September to enable the Global Users to directly send payment instructions to the renminbi RTGS system without the need to go through their correspondent direct participants.

### ***New support for renminbi repo transactions***

Enhancements to the CMU system were implemented in late 2015 to further assist eligible CMU participants to perform renminbi intraday and overnight repo transactions with the HKMA and initiate such transactions through CMU member terminals.

## ***Assisting cross-border investment fund transactions***

The SFC and the China Securities Regulatory Commission (CSRC) signed the Memorandum of Regulatory Co-operation for the MRF between Mainland China and Hong Kong on 22 May 2015. The Memorandum provides a framework for mutual recognition of funds between the CSRC and the SFC to enable these recognised funds to be offered to the public in both markets. Leveraging on the existing financial infrastructure in Hong Kong and Mainland China, the HKMA, together with the relevant Mainland institutions, jointly developed the first cross-border infrastructure and network linkages to facilitate the processing of cross-border investment fund transactions under the MRF arrangement. The enhanced CMU fund service plays an important role in improving the efficient and effective implementation of the MRF arrangement and lays a foundation for the continued development of the MRF initiative. This, in turn, will enhance Hong Kong's role as a leading asset management centre in the region.

### ***CMU Central Bank Placement Co-ordinating Window***

The HKMA's CMU Central Bank Placement Co-ordinating Window was used twice by the Chinese Ministry of Finance in 2015, on 20 May and 26 November, for a placement of RMB2 billion offshore renminbi sovereign bonds on each issuance. Both placements were over-subscribed from overseas central banks and monetary authorities. The Ministry of Finance, also through the HKMA's CMU bond tendering platform, issued two batches of offshore renminbi sovereign bonds to institutional investors on 20 May and 26 November, worth RMB12 billion and RMB10 billion respectively. The HKMA's assistance in promoting the acceptance of renminbi sovereign bonds among a diverse group of investors for the offshore renminbi bond market further supported the role of Hong Kong as the global hub for offshore renminbi business.

### ***Trade repository for OTC derivatives***

The continuing system development of the trade repository for OTC derivatives is on schedule with the next phase, which completes the product coverage and copes with requirements of local and international regulatory authorities, targeted for launch in the first half of 2016. Technical training workshops, system testing sessions and regulation briefings were held during the year in support of those entities required to report their OTC derivatives transactions under the new OTC derivatives market regulatory regime introduced in July 2015. The HKMA also participated in international discussions and working groups on reporting standards for trade repositories to keep abreast of relevant developments and ensure the local trade repository will meet international standards and best practices.

### ***Retail payment initiatives***

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

#### ***Implementation of the electronic bill presentment and payment (EBPP) system***

Banks have continued to recruit merchants to join the EBPP service. At the end of 2015, 19 banks and 148 merchants, including the Government's Water Supplies Department and Rating and Valuation Department, had enrolled in the service, and these numbers are expected to grow steadily. To enhance public awareness of the EBPP service, the HKMA collaborated with the HKAB to develop a new series of publicity materials, including TV and radio Announcements in the Public Interest (APIs), brochures and other electronic materials.

#### ***Implementation of e-Cheque***

The e-Cheque service was launched on 7 December, and by the end of the year nine banks had started offering an e-Cheque issuance service to their customers through the Internet banking platform. In addition, all banks are capable of accepting e-Cheque deposits from their customers through Internet banking, the mobile banking platform, or the e-Cheque Drop Box service provided by the HKICL. So far, the operations of the e-Cheque infrastructure have been smooth and robust. To help the public better understand the new service, the HKMA and the HKAB jointly developed and distributed a range of educational materials, including TV and radio APIs, poster and electronic brochure.

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## *Near Field Communication<sup>6</sup> (NFC) mobile payment*

By the end of 2015, six banks, one stored value card issuer and one mobile network operator had launched the NFC mobile payment service, taking into account the Best Practice for NFC Mobile Payment standards jointly developed by the HKMA and the HKAB.

## ***New regulatory regime for stored value facilities (SVF) and retail payment systems (RPS)***

The Clearing and Settlement Systems (Amendment) Ordinance 2015 commenced operation on 13 November. It amended the Clearing and Settlement Systems Ordinance (CSSO) and the Banking Ordinance to introduce a new regulatory framework for SVF and RPS in Hong Kong. Upon enactment of the amendment Ordinance, the CSSO was retitled PSSVFO, under which the HKMA is empowered to implement a mandatory licensing regime for multi-purpose SVF and perform relevant supervision and enforcement functions, among other things. A one-year transition period is provided for in the PSSVFO, after which all existing and new SVF issuers would have to obtain an SVF licence from the HKMA before they can continue to operate. To facilitate the licence application process, the HKMA issued an “Explanatory Note on Licensing for Stored Value Facilities” setting out its policies and approach in implementing the SVF licensing regime. Industry briefings and one-on-one meetings were held with prospective applicants to explain the licensing requirements and policy intent. In addition, the HKMA is empowered under the PSSVFO to designate important RPS in Hong Kong to ensure their operations are safe and efficient. An “Explanatory Note on Designation of Retail Payment Systems” setting out the HKMA’s policy towards key regulatory issues and

designation procedures applicable to RPS was provided to the industry for comment in November. The finalised document is expected to be available in the first half of 2016. Meanwhile, the retail payment industry continued to adopt a self-regulatory approach by issuing code of practice to promote the safety and efficiency of RPS. The Code of Practice for Payment Card Scheme Operators, issued by eight credit and debit card scheme operators and endorsed by the HKMA in 2006, sets out principles covering operational reliability, data and network security, and the efficiency and transparency of payment card operations in Hong Kong. The HKMA monitors the operators’ compliance with the Code, and operators are required to perform an annual self-assessment and report to the HKMA any incident which may have material and adverse impact on Hong Kong cardholders. In the annual self-assessment report covering activities in 2015, the eight card scheme operators reported full compliance with the Code. Since June 2010, the HKMA has published quarterly aggregate payment card data collected from the card operators to promote transparency of the payment card industry.

## ***Cyber security programme for financial market infrastructure operators and banks***

The resilience of financial market infrastructure and financial and banking systems to cyber attacks has become a high priority on the agendas of regulatory authorities and financial institutions in a number of major international financial centres. In tandem with this, the HKMA has been working with the banking industry and relevant government departments to develop a comprehensive cyber security programme to strengthen the overall cyber resilience of the financial market

<sup>6</sup> 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.

infrastructure and the financial and banking systems of Hong Kong. The programme comprises three components: (i) a cyber risk assessment model; (ii) a cyber intelligence sharing platform; and (iii) a certification scheme and training programme for cyber security professionals.

## **PLANS FOR 2016 AND BEYOND**

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

### **International and regional co-operation**

Monetary policies worldwide are expected to continue to diverge amid uneven economic growth. The global financial system is expected to undergo adjustments after years of unprecedented ultra-loose monetary conditions. Meanwhile, activity in emerging market economies (EMEs) is slowing. This, coupled with tightening global liquidity conditions, increases the risk of capital outflows from EMEs and financial market volatility. In the face of these challenges, there is a need for improved cross-border co-operation in market surveillance and a strengthening in the resilience of financial systems. To this end, the HKMA will continue to participate in international and regional forums to promote financial stability.

### **Development of Hong Kong as the global offshore renminbi business hub**

The internationalisation of the renminbi, the Mainland's continued opening up of the capital account, and national policies including the "Belt and Road" initiative, are expected to provide substantial headroom for Hong Kong's offshore renminbi business to grow. The HKMA will work with the financial sector to seize the opportunities. We will continue to engage Mainland authorities to explore more avenues for cross-border renminbi fund flows and closer financial co-operation. The HKMA will consider further expansion of Hong Kong's renminbi business platform and will strengthen renminbi business links with other economies. We will also seek better synergy in our promotion efforts for renminbi and other businesses under the overarching theme of Hong Kong's status as an international financial centre.

### **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 relations with the private sector and industry associations to expand the range and sophistication of market products and services. Further steps will be taken to expand Islamic finance in Hong Kong by encouraging product development, raising market awareness and knowledge of Islamic finance, and forging closer ties with key Islamic financial centres and international Islamic financial organisations. The HKMA will also continue working 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 and regional destination for CTCs and as the global offshore renminbi business hub.

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## **OTC derivatives market regulation**

The HKMA will continue to work with the SFC towards developing the detailed rules for implementing other aspects of the regulatory regime for the OTC derivatives market. Subject to the legislative process, it is expected the first phase of mandatory clearing will commence in 2016 and the second phase of mandatory reporting in 2017. The HKMA will closely monitor and participate in regulatory developments in the international arena through its participation in various international forums, including the OTC Derivatives Working Group of the FSB and the OTC Derivatives Regulators' Forum.

## **Financial infrastructure**

### ***Interbank intraday liquidity facility for Hong Kong's RTGS systems***

The RTGS systems are being upgraded to support the launch of a new interbank intraday liquidity facility in each system in early 2016. This will improve the liquidity management of direct participating banks in Hong Kong's RTGS systems. The liquidity facility will allow registered participating banks to provide intraday loans to other participants more efficiently.

### ***Centralised corporate action platform***

The development of a centralised corporate action platform in the CMU system progressed as planned. The platform supports corporate action announcements (for example, offer of call options) and the execution of custody instructions (such as voting) of debt securities lodged with the CMU. It helps both the issuers and investors to process corporate action events of CMU securities in a more effective and efficient manner. The platform is scheduled for completion in the second half of 2016.

## ***Trade repository for OTC derivatives***

The next phase of the trade repository system, covering derivatives products in the remaining asset classes, is targeted for launch in the first half of 2016. Other new features will also be added in light of local and international regulatory requirements, for example, to support the reporting of valuation information, and the sharing and aggregation of data.

## ***Retail payment initiatives***

Further steps will be taken to improve Hong Kong's retail payment infrastructure. Under the EBPP service, the HKMA will explore, with a system operator in Mainland China, measures to enable Hong Kong residents to pay bills issued by Mainland merchants. We will also explore ways of expanding the application of the e-Cheque service in two areas — cross-border transactions and the development of e-commerce. Both the HKMA and the HKAB will continue to support the educational campaign to enhance public awareness of the service.

## ***New regulatory regime for SVF and RPS in Hong Kong***

With the commencement of the PSSVFO in November 2015, the HKMA will focus on the implementation of the necessary regulatory regime in 2016. We are processing SVF licence applications and will facilitate a smooth transition upon the expiry of the one year transitional period on 12 November 2016. To facilitate licensees' compliance with the regulatory requirements, the HKMA will issue supervisory guidelines to explain how it will exercise its powers and functions in implementing the regime. For RPS, the HKMA will begin determining whether any existing operators should be designated, and developing relevant supervisory guidelines on the designation and regulatory requirements applicable to the RPS. A series of educational programmes will be launched to promote public awareness of the new regulatory regime. The programme will also inform the public about the mechanism for handling complaints and disputes in order to protect the interests of users.



### ***Cyber security programme for financial market infrastructure operators and banks***

The HKMA will continue working with the banking industry and relevant Government departments on the implementation of the cyber security programme to improve the resilience of Hong Kong's financial market infrastructure and financial and banking systems. The cyber risk assessment model and the cyber intelligence sharing platform are scheduled for completion in 2016. The first round of professional examinations for the certification scheme is expected to be held before the end of 2016.

# Reserves Management

2015 was a turbulent year for the global financial markets, presenting unprecedented challenges to investment funds. Amid such challenging and difficult investment environment, the Exchange Fund recorded an overall investment return of -0.6% in 2015, but its loss was relatively mild as compared with major market indices and comparable investment funds, thanks to a series of defensive moves deployed by the HKMA over the past years which have enhanced the resilience of the Exchange Fund.

## THE EXCHANGE FUND

The Exchange Fund's primary objective, as laid down in the Exchange Fund Ordinance, is to affect, either directly or indirectly, the exchange value of the currency of Hong Kong. The Fund may also be used to maintain the stability and integrity of Hong Kong's monetary and financial systems to help maintain Hong Kong as an international financial centre. The Exchange Fund is under the control of the Financial Secretary and may be invested in any securities or other assets he considers appropriate, after consulting the Exchange Fund Advisory Committee (EFAC).

## MANAGEMENT OF THE EXCHANGE FUND

### Investment objectives and portfolio structure

EFAC has set the following investment objectives for the Exchange Fund:

- (a) to preserve capital;
- (b) to ensure that the entire Monetary Base, at all times, will be fully backed by highly liquid US dollar-denominated assets;
- (c) to ensure that sufficient liquidity will be available for the purposes of maintaining monetary and financial stability; and
- (d) subject to (a) — (c), to achieve an investment return that will help preserve the long-term purchasing power of the Fund.

These objectives take full account of the statutory purposes of the Exchange Fund, and are incorporated into the portfolio structure and the target asset mix of the Fund.

Broadly speaking, the Exchange Fund has two major portfolios — the Backing Portfolio and the Investment Portfolio. The Backing Portfolio holds highly liquid US dollar-denominated assets to provide full backing to the Monetary Base as required under the Currency Board arrangements. The Investment Portfolio is invested primarily in the bond and equity markets of the member countries of the Organisation for Economic Co-operation and Development to preserve the value and long-term purchasing power of the assets. The long-term target bond-to-equity mix for the two portfolios as a whole is 72:28. In terms of target currency mix, 81% of the assets are allocated to the US dollar and the Hong Kong dollar, and the remaining 19% to other currencies.

To better manage risks and enhance returns in the medium and long term, the HKMA has been diversifying part of the Exchange Fund's investment, in a prudent and incremental manner, into a greater variety of asset classes, including emerging market and Mainland bonds and equities, private equity and overseas investment properties. Emerging market and Mainland bonds and equities are held under the Investment Portfolio while private equity and real estate investments are held under the Long-Term Growth Portfolio (LTGP). The cap for the net asset value of the HKMA's investments under the LTGP is maintained at one-third of the Accumulated Surplus of the Exchange Fund. At the end of 2015, the market value of investments under the LTGP totalled HK\$142.1 billion, made up of HK\$91.3 billion in private equity and HK\$50.8 billion in real estate, with outstanding investment commitments amounted to HK\$122.4 billion.

The Strategic Portfolio, established in 2007 to hold shares in Hong Kong Exchanges and Clearing Limited that were acquired by the Government for the account of the Exchange Fund for strategic purposes, is not included in the assessment of the Fund's investment performance because of the unique nature of this Portfolio.

# Reserves Management

## **The investment process**

The investment process of the Exchange Fund is underpinned by decisions on two types of asset allocation – the strategic asset allocation and the tactical asset allocation. The strategic asset allocation, reflected in the investment benchmark, represents the long-term optimal asset allocation given the investment objectives of the Exchange Fund. Guided by the strategic allocation, assets are tactically allocated in an attempt to achieve an excess return over the benchmark. This often means the actual allocation is different from the benchmark, or strategic, allocation. The differences between the actual and the benchmark allocations are known as “tactical deviations”. While the benchmark and the limits for tactical deviations are determined by the Financial Secretary in consultation with EFAC, tactical decisions are made by the HKMA under delegated authority. Within the limits allowed for tactical deviations, portfolio managers may take positions to take advantage of short-term market movements.

## **Investment management**

### ***Direct investment***

HKMA staff in the Reserves Management Department directly manage the investment of about 76% of the Exchange Fund, which includes the entire Backing Portfolio and part of the Investment Portfolio. This part of the Investment Portfolio includes a set of portfolios invested in global fixed-income markets and various derivative overlay portfolios implementing macro risk management strategies for the Fund.

### ***Use of external managers***

In addition to managing assets internally, the HKMA employs external fund managers based in a number of international financial centres to manage about 24% of the Exchange Fund’s assets, including all of its listed equity portfolios and other specialised assets. The purpose of appointing external managers is to tap the best investment expertise available in the market to capture a diverse mix of investment styles, and transfer knowledge and information from the market to in-house professionals.

Expenditure relating to the use of external managers includes fund management and custodian fees, transaction costs, and withholding and other taxes. The expenditure is primarily determined by market factors, and may fluctuate from year to year.

### ***Risk management and compliance***

The high volatility of the financial markets in recent years has highlighted the importance of risk management. Stringent controls and investment guidelines have been established for both internally and externally managed portfolios, and compliance with guidelines and regulations is closely monitored. Risk-control tools are deployed to assess market risks under both normal and adverse market conditions. The HKMA also conducts detailed performance attribution analyses to make the best use of the investment skills of both internal and external managers.

## PERFORMANCE OF THE EXCHANGE FUND

### The financial markets in 2015

The global financial markets were highly volatile in 2015. The equity markets, in particular, encountered exceptional turbulence. Major equity markets reached new highs in the first half of the year. However, market sentiment worsened drastically in the third quarter, arising from Mainland China growth concerns, with major equity markets reversing their year-to-date gains and registering significant quarterly losses. Global equity markets recovered somewhat along with improving market sentiment thereafter, but they worsened again towards the end of the year. With their close linkage with the Mainland economy, Hong Kong equities underperformed other major equity markets in 2015.

On sovereign bond markets, longer-term US Treasury yields rose moderately in 2015 despite expectation of US interest rate normalisation and the start of the US interest rate up-cycle, as positive sentiment was checked by concerns over global economic growth, lingering global disinflationary pressures and intensified geopolitical

tensions. On the other hand, short-term European government bond yields declined and some even slipped into negative territory on the back of the European Central Bank's aggressive monetary easing policy.

On currency markets, the US dollar continued to strengthen in 2015 with the US dollar index surging by almost 10%, amid expectation of the commencement of the US policy rate normalisation. The euro weakened significantly in the first quarter, posting the biggest single-quarter fall in the history of the euro since 1999, as the European Central Bank announced quantitative easing measures in January. On the other hand, the yen stayed largely flat against the US dollar in 2015.

The performance of major currency, bond and equity markets in 2015 is shown in Table 1.

**Table 1** 2015 market returns

<b>Currencies</b>	
Appreciation (+)/depreciation (-) against US dollar	
Euro	-10.2%
Yen	-0.3%
<b>Bond markets</b>	
Relevant US Government Bond (1 – 30 years) Index	+0.9%
<b>Equity markets <sup>1</sup></b>	
Standard & Poor's 500 Index	-0.7%
Hang Seng Index	-7.2%

<sup>1</sup> Market performance on equities is based on index price change during the year.

# Reserves Management

## The Exchange Fund's performance

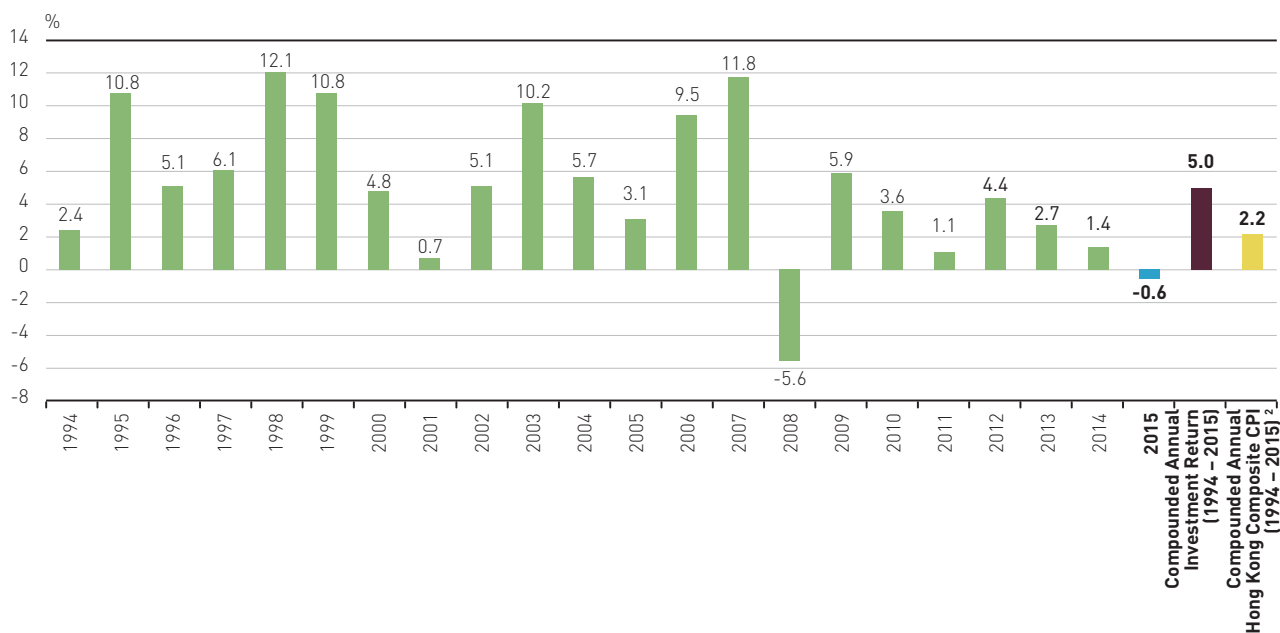
Against the backdrop of exceptionally volatile financial markets and difficult investment environment, the Exchange Fund recorded an investment loss of HK\$15.8 billion in 2015, comprising gains of HK\$7.1 billion on overseas equities, losses of HK\$5 billion on Hong Kong equities, gains of HK\$15.9 billion on bonds, a negative currency translation effect of HK\$44.9 billion on non-Hong Kong dollar assets and gains of HK\$11.1 billion on other investments held by the investment holding subsidiaries of the Fund. The negative currency translation effect was unavoidable when translating the Exchange Fund's non-US dollar investments into Hong Kong dollar amid the sharp strengthening of the US dollar last year. Separately, the Strategic Portfolio recorded a valuation gain of HK\$2.2 billion.

The total assets of the Exchange Fund reached HK\$3,422.9 billion at the end of 2015. The investment return of the Exchange Fund (excluding the Strategic Portfolio) in 2015 was -0.6%. That notwithstanding, the Exchange Fund's loss could be considered mild when compared with the underperforming major market indices and the investment fund community in general. In anticipation of a worsening investment environment, the HKMA has deployed a series of defensive moves over the past years, which include shortening the duration of bond portfolios, increasing cash holdings, and significantly reducing non-US dollar assets. We have also quickened the pace of investment diversification, especially through investments under the LTGP. These moves have enhanced the resilience of the Exchange Fund and helped mitigate some potential losses.

The annual return of the Fund from 1994 to 2015 is set out in Chart 1. Table 2 shows the 2015 investment return and the average investment returns of the Fund over a number of different time horizons. The average return was 1.2% over the past three years, 1.8% over the past five years, 3.3% over the past 10 years and 5.0% since 1994.<sup>1</sup> Table 3 shows the currency mix of the Fund's assets on 31 December 2015.

<sup>1</sup> Averages over different time horizons are calculated on an annually compounded basis.

**Chart 1** Investment return of the Exchange Fund (1994 – 2015) <sup>1</sup>



<sup>1</sup> Investment return calculation excludes the holdings in the Strategic Portfolio.

<sup>2</sup> Composite Consumer Price Index is calculated based on the 2009/2010-based series.

**Table 2** Investment return of the Exchange Fund in Hong Kong dollar terms <sup>1</sup>

	Investment return <sup>2 &amp; 3</sup>
2015	-0.6%
3-year average (2013 – 2015)	1.2%
5-year average (2011 – 2015)	1.8%
10-year average (2006 – 2015)	3.3%
Average since 1994	5.0%

<sup>1</sup> The investment returns for 2001 to 2003 are in US dollar terms.

<sup>2</sup> Investment return calculation excludes the holdings in the Strategic Portfolio.

<sup>3</sup> Averages over different time horizons are calculated on an annually compounded basis.

**Table 3** Currency mix of the Exchange Fund's assets on 31 December 2015 (including forward transactions)

	HK\$ billion	%
US dollar	2,767.6	80.9
Hong Kong dollar	222.9	6.5
Others <sup>1</sup>	432.4	12.6
<b>Total</b>	<b>3,422.9</b>	<b>100.0</b>

<sup>1</sup> Other currencies included mainly Australian dollar, Canadian dollar, euro, renminbi, pound sterling and Japanese yen.

# Corporate Functions

The HKMA maintains effective communications with the community and the market through the media, public education programmes, and various other channels to facilitate understanding of its policies and operations. In 2015, the HKMA improved corporate governance by supporting professional development of staff, instituting rigorous financial discipline, enhancing IT security, and realigning duties among senior management to help cope with challenges arising from the implementation of new programmes and systems and the increasing complexity of work.



## ENGAGING THE COMMUNITY CORPORATE DEVELOPMENT

### Media relations

The HKMA works closely with the media to improve transparency and promote public understanding of its policies and work. In 2015, 59 open media events were held, comprising 14 news conferences, 14 stand-up interviews and 31 other public functions. A further 43 media interviews were arranged, 325 bilingual press releases were issued and a substantial number of media enquiries were handled daily.

In addition, to enhance public understanding of the HKMA's key functions, two media tours were organised to the Hong Kong Note Printing Limited and Hong Kong Interbank Clearing Limited (HKICL) respectively to showcase Hong Kong's world-class note printing technologies and financial infrastructure. Educational workshops were conducted on the Currency Board system, renminbi business and the Exchange Fund for a more in-depth briefing for the media on these important subjects.



*An automated cheque sorting demonstration during a media tour to HKICL. In the middle of the photo (from left to right) are HKMA Chief Executive, Mr Norman Chan; Executive Director (Financial Infrastructure), Mr Esmond Lee; and HKICL Chief Executive Officer, Ms Haster Tang.*



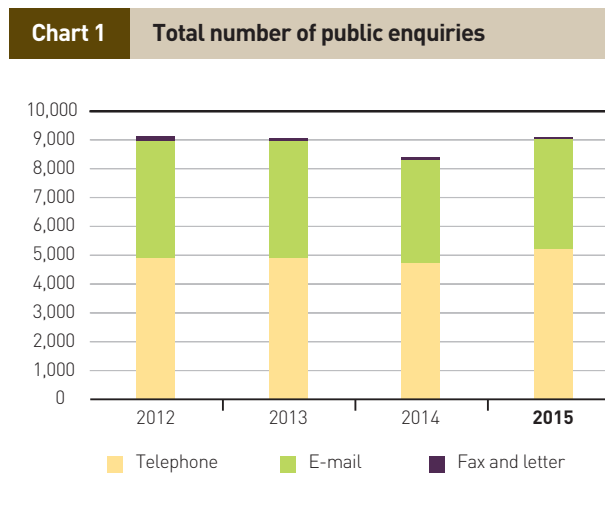
*HKMA Chief Executive, Mr Norman Chan (centre), and Executive Director (Monetary Management), Mr Howard Lee (right), inspect security features on banknotes during a media visit to the Hong Kong Note Printing Limited.*

# Corporate Functions

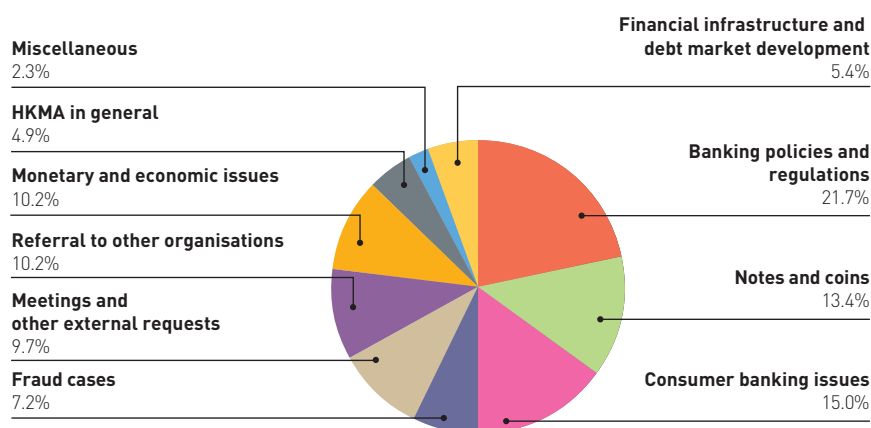
## Public enquiries

The Public Enquiry Service provides an effective means for people to obtain information from the HKMA, enabling them to get a greater understanding of the organisation's key functions. The Service handled 9,078 enquiries in 2015. About half of these related to banking policies and regulations, notes and coins, and consumer banking issues. Notable examples included prudential measures for property mortgage loans, banking products and services, prevention of money laundering and terrorist financing, and the coin collection programme.

Chart 1 shows the number of public enquiries received since 2012 and Chart 2 provides a breakdown by nature of the enquiries in 2015.



**Chart 2 Nature of enquiries received in 2015**



## Publications

Apart from the *HKMA Annual Report*, the HKMA published two issues of the *Half-Yearly Monetary and Financial Stability Report*, 4 issues of the Quarterly Bulletin, and released regular updates of the *Monthly Statistical Bulletin* over the past year to provide up-to-date and thematic information and analyses on monetary, banking and economic issues in Hong Kong. In addition, senior management of the HKMA published 14 *inSight* articles covering various topical and timely policy issues.

The *HKMA Annual Report 2014* received a Bronze award in the “Non-profit Making and Charitable Organisations” category in the Hong Kong Management Association’s 2015 Best Annual Reports Awards.

## The HKMA website

The HKMA corporate website ([www.hkma.gov.hk](http://www.hkma.gov.hk)), with over 50,000 pages in English and traditional and simplified Chinese, is the public access gateway to up-to-date information about the HKMA. It also contains the Register of Securities Staff of Authorized Institutions (AIs) and the Register of AIs and Local Representative Offices, both maintained under section 20 of the Banking Ordinance. With the implementation of the Payment Systems and Stored Value Facilities Ordinance, the website will also contain the register of stored value facility licensees under the Ordinance. Dedicated webpage and eye-catching short-cut links have been provided to draw the public’s attention to important and timely information on issues such as reminders on the need to remain vigilant against bogus phone calls and the location of the coin carts in the coin collection programme.

# Corporate Functions

## Public education programme

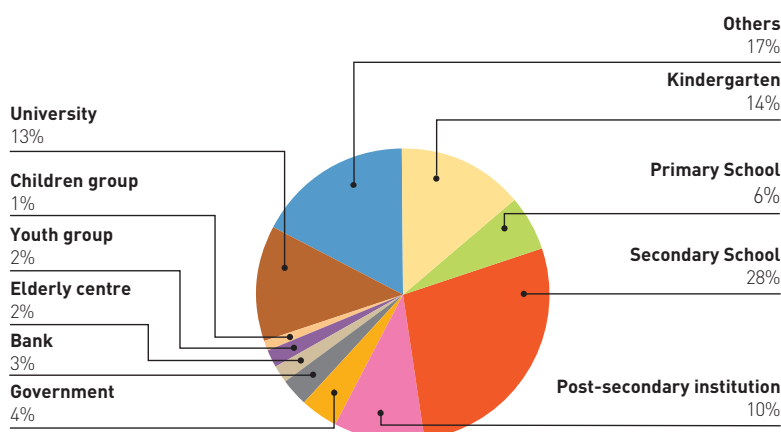
The HKMA Information Centre on the 55th Floor of Two International Finance Centre is an important resource for introducing the work of the HKMA to the community and promoting public awareness of monetary and banking matters. The Centre consists of the Exhibition Area and the Library, and is open to the public six days a week. The Exhibition Area introduces the work of the HKMA and the development of money and banking in Hong Kong. It includes reading materials and exhibits for the study of Hong Kong's monetary, banking and financial affairs.

Guided tours of the Information Centre are organised for visitors. During the year, the Centre received more than 48,300 visitors and hosted over 630 guided tours for schools and other groups (Chart 3). Over 530,400 people have visited the Information Centre since it opened in December 2003.

The Library, situated next to the Exhibition Area, houses more than 23,000 books, journals and other publications for the detailed study of Hong Kong's monetary, banking and financial affairs and central banking topics. It also maintains an electronic register of AIs in Hong Kong as required by section 20 of the Banking Ordinance.

In its ongoing programme to reach out to the community, the HKMA continued to organise public education seminars. In 2015, three seminars were held for some 2,300 secondary school students and teachers. Topics included the Linked Exchange Rate System, banknotes in Hong Kong, the smart use of credit cards and the Deposit Protection Scheme. More than 54,700 people have participated in the programme since its launch in 1998.

**Chart 3** Types of group visits to the Information Centre





Young visitors learn about the development of money and banking in Hong Kong during a guided tour of the Information Centre.



Secondary school students and teachers participate in a public education seminar.

## HUMAN RESOURCES

The HKMA recruits, develops and maintains a highly professional workforce to support its policy objectives and respond flexibly to changing work priorities. While the HKMA is an integral part of the Government, it is able to employ staff on terms different from those of the civil service to attract personnel with the right experience and expertise. As a public organisation, the HKMA aims to maintain a lean and flexible structure and to redeploy staff resources to undertake new initiatives and meet increased workload.

### Organisational changes

Following the enactment of the Payment Systems and Stored Value Facilities Ordinance, a new Retail Payment Oversight Division was formed under the Monetary Management Department (MMD) in December 2015 to carry out the HKMA's new statutory duties in the licensing and day-to-day supervision of stored value facilities and other retail payment systems. To enhance synergy amongst departments and reprioritise staff resources in coping with the challenges arising from the implementation of new initiatives as well as increasing workload and complexity of work, reshuffling of duties among a number of departments was planned in 2015 for implementation in early 2016. Details are as follows:

- The Financial Infrastructure Department (FID) took over the administration of the Deposit Protection Scheme and the settlement function from the Enforcement Department (ENFD) and the Currency Division from MMD. It also took over from the Banking Departments certain banking-related work such as consumer education, directors' development and enhanced competency framework for bank practitioners;
- The External Department took over the market development function of MMD, while the latter will continue with its work relating to the Treasury Markets Association and financial benchmarks; and
- ENFD took over the Anti-Money Laundering (AML) and Financial Crime Risk Division from the Banking Supervision Department, and was retitled as Enforcement and AML Department.

# Corporate Functions

## Staffing

The establishment of the HKMA in 2015 was 841. This is increased by 34 to 875 in 2016 (an increase of 4%) to ensure that sufficient resources are provided to cope with (i) the implementation of new legislation and initiatives, (ii) continuation of pilot projects proven necessary on an on-going basis, and (iii) the increasing complexity and volume of existing work. The new posts are deployed to the following functions:

- Enhancing banking and financial stability, which includes:
  - strengthening banking supervision work including on-site examination of banks' stress testing process, implementation of international banking standards and peer review exercises;
  - strengthening the supervision of banks' liquidity risk and cyber security risk management;
  - implementing the supervisory framework regarding over-the-counter (OTC) derivatives conducted through banks and approved money brokers under the newly effective OTC derivatives reporting and record-keeping rules;
  - strengthening supervisory and enforcement efforts in anti-money laundering and counter-terrorist financing;
  - gearing up the planning and preparatory work for the implementation of the Financial Institutions (Resolution) Bill, which applies international standards to address the "too big to fail" problem of the financial industry;
- promoting capacity building in the banking sector through the development of a director empowerment programme for independent non-executive directors of banks to further improve the governance of banks and collaboration with the industry to promote enhanced competency frameworks for banking practitioners engaged in core areas of banking operations;
- stepping up the banking conduct policy and research capability in new banking, securities and insurance products;
- enhancing consumer protection and consumer education efforts; and
- stepping up the monitoring and analysis of developments in the onshore renminbi market and in the CNH market with a view to supporting the orderly operation of Hong Kong's offshore renminbi market.
- Strengthening investment, risk management and legal support to the expanding investment activities associated with the establishment of the Future Fund and further diversification of the Exchange Fund's investment products, and enhancing strategic asset allocation and investment processes in the light of an increasingly challenging investment environment.
- Implementing the new statutory regime which empowers the HKMA to regulate stored value facilities and retail payment systems under the Payment Systems and Stored Value Facilities Ordinance.

Table 1 gives a breakdown of the establishment and strength of the HKMA.

<b>Table 1 Establishment and strength of the HKMA on 29 February 2016</b>		<b>Senior staff</b>		<b>Others</b>	
<b>Department</b>	<b>Functions</b>	<b>Establishment</b>	<b>Strength</b>	<b>Establishment</b>	<b>Strength</b>
Senior Executives' Office	Top management of the HKMA.	4	4	9	9
Banking Conduct	To focus on payment systems oversight, licensing, and all supervisory and development functions relating to the business conduct of authorized institutions.	1	1	73	70
Banking Policy	To formulate supervisory policies for promoting the safety and soundness of the banking sector.	1	1	32	32
Banking Supervision	To supervise operations of authorized institutions.	1	1	156	148
Enforcement and AML	To investigate and where appropriate take enforcement action under relevant Ordinances, to supervise anti-money laundering and counter-terrorist financing systems and to handle complaints.	1	1	94	89
External	To help develop and promote Hong Kong as an international financial centre; to foster regional monetary co-operation through participation in the international central banking and financial community; and to promote the development of financial markets.	1	1	49	48
Financial Infrastructure	To develop and enhance the financial market infrastructure for maintaining and strengthening Hong Kong's status as an international financial centre; to take charge of deposit protection and settlement functions; and to ensure adequate supply of banknotes and coins.	1	1	52	51
Monetary Management	To maintain financial and monetary stability through macro-financial surveillance, monitoring of market operations; and licensing and supervision of stored valued facilities and retail payment systems.	1	1	48	46
Research	To conduct research and analysis on economic and international financial market developments in Hong Kong and other economies.	1	1	41	37
Reserves Management	To manage reserves to achieve investment returns in line with established guidelines and to enhance the quality of returns by diversifying into different investment markets and asset types.	1	1	71	56
Risk and Compliance	To oversee all risk-generating activities, including investment risks and other non-investment related corporate risks of the HKMA.	1	1	38	34
Office of the General Counsel	To provide in-house legal support and advice.	1	1	23	21
Corporate Services	To provide support services in the form of administrative, finance, human resources, information technology and secretariat services; and to handle media and community relations.	1	1	163	155
Internal Audit Division	To provide audit services through assisting the management in controlling risks, monitoring compliance and improving the efficiency of internal control systems and procedures.	-	-	10	9
<b>Total</b>		<b>16</b>	<b>16</b>	<b>859</b>	<b>805</b>



# Corporate Functions

Temporary resources are deployed to meet other work demands. The HKMA transfers staff on secondment to other international or local organisations such as the International Monetary Fund (IMF) and the Financial Services Development Council to assist in activities or policy initiatives in which Hong Kong or the HKMA has an interest. Some staff members are deployed on a full-time or part-time basis to provide operational support to the Hong Kong Deposit Protection Board and the Treasury Markets Association.

## Remuneration policies and pay review mechanism

The Financial Secretary (FS) determines the pay and conditions of service for HKMA staff on the advice of the Governance Sub-Committee (GSC) through the Exchange Fund Advisory Committee (EFAC), taking into account the prevailing market rates and practices. Remuneration comprises a total cash package and a provident fund scheme, with minimal benefits in kind. The cash package consists of monthly fixed pay (or basic pay) and variable pay, which may be awarded to individual staff members as a lump sum once a year depending on performance.

Pay for HKMA staff is reviewed annually by the FS in the light of recommendations made to him by the GSC through EFAC, taking into account the GSC's assessment of the performance of the HKMA in the preceding year, the pay-survey findings of the financial sector conducted by independent human resources consultants and any other relevant factors. Special pay adjustments may be made from time to time for individual meritorious staff to maintain their pay competitiveness.

Any approved annual adjustments to the fixed pay or any variable pay awards for the HKMA are distributed to individual staff based on their performance. Investment professionals in the HKMA are subject to a variable pay system that seeks to strengthen the linkage between their investment performance and remuneration award. The pay adjustments or awards for individual staff members at the ranks of Executive Director or above are approved by the FS on the advice of the GSC. The staff members concerned are not present at the meetings when their pay is discussed. The pay adjustments or awards for individual staff members at the ranks of Division Head and below

are determined by the Chief Executive of the HKMA under delegated authority from the FS and within the approved overall pay awards.

## Remuneration of senior staff

The remuneration packages of the senior staff in 2015 are shown in Table 2.

**Table 2** Remuneration packages of HKMA senior staff in 2015<sup>1</sup>

HK\$'000	Chief Executive	Deputy Chief Executive (average)	Executive Director (average)
Number of staff <sup>2</sup>	1	3	13
Annualised pay			
Fixed pay	6,715	6,339	3,773
Variable pay	2,600	1,817	955
Other benefits <sup>3</sup>	917	852	536

Notes:

- (1) Except for annual leave accrued, the actual remuneration received by staff who did not serve out a full year is annualised for the purpose of calculating the average annual package for the rank.
- (2) The number of staff at the Executive Director rank includes the Chief Executive Officer of the Hong Kong Mortgage Corporation.
- (3) Other benefits include provident funds, medical and life insurance and annual leave accrued during the year. The provision of these benefits varies among senior staff depending on individual terms of service.

## Training and development

The HKMA puts much effort into developing staff capabilities to meet operational demands, career development needs and new challenges. During the year, staff were provided with 3,008 training days, including 1,334 days of horizontal training in general skills and 1,674 days of vertical training in job-specific issues. On average each staff member received 3.7 days of training in 2015. These training courses were organised in-house, or by the Hong Kong Government, other central banking institutions, local and overseas universities, consultants and training institutions.

As part of the horizontal training programme, an annual in-house induction course covering an overview of central banking, and the roles and functions of the HKMA was organised for new recruits. Other horizontal training



events attended by staff covered leadership programmes and executive coaching, corporate governance, the global economy, public policy, national and foreign affairs studies, communication and presentation skills, team building, computer skills and language courses.

Vertical training for staff covered various courses on job-specific topics, including an overview of the Banking Ordinance, banking returns and management information system analysis, recovery and resolution planning, property mortgage lending, securities law, investigation of anti-money laundering, operational risk management, risk governance, interpretation of consumer credit reports, investment products, and overseas regulatory environment and bank capital. Staff are also sponsored to attend relevant courses run by local professional bodies and training consultants.

In addition, the HKMA provides a training sponsorship scheme to help staff pursue studies to enhance their work-related knowledge and professional standard. The scheme covers degree or diploma courses, professional examinations and short-term courses. The reimbursement of membership fees of relevant professional bodies is also provided.

## GENERAL ADMINISTRATION

The HKMA continues to streamline its work to improve efficiency and cost-effectiveness in coping with the increasing workload. Business continuity plans are reviewed regularly to ensure their effectiveness in a changing business and social environment. Drills on evacuation and the activation of the back-up facilities are conducted regularly to ensure the responsiveness and preparedness of various business continuity measures. A dedicated team monitors the influenza alerts and other relevant infectious diseases to ensure necessary precautionary and contingency measures are taken in accordance with the business contingency plan.

The HKMA has an established environmental policy to protect and preserve the environment. Office green measures include installing energy-saving devices, recycling, the use of recycled paper and envelopes,

minimising printing and the use of paper products. Green achievements in 2015 included reduction in envelope usage (43%) and chilled water consumption (1.7%). Staff also participate in regular campaigns for collecting clothes, toys and reusable items for donation to charities.

HKMA staff members also involve themselves in the community with their participation in various charity events. The HKMA Team ranked fourth in the team's category of the AXA Hong Kong Streetathon to raise funds for charities in Kowloon East. The Team also participated in the "Challenging 12 Hours Charity Marathon" to support the Sowers Action in promoting education aid in Mainland China. It finished seventh in a field of 87 teams, and secured a gold medal award by completing the marathon in 6 hours and 5 minutes. HKMA staff members were also involved in the Blood Donation Day, the Community Chest's Skip Lunch Day, Dress Casual Day and Love Teeth Day.

In 2015, the HKMA Volunteer Team devoted more than 110 hours of their free time to serving the community, including participating in a number of programmes organised by the Agency for Volunteer Service; making home visits to the elderly organised by the Senior Citizen Home Safety Association; and assisting in a project involving recycled computers and peripherals for the Caritas Computer Workshop. In recognition of the HKMA's commitment in caring for the community, the HKMA has been accredited with the "10 Years Plus Caring Organisation Logo" by the Hong Kong Council of Social Service.



*HKMA staff members give blood at the Red Cross Blood Donation Day.*

# Corporate Functions

## FINANCE

### Annual budget

In drawing up the annual budget, the HKMA takes into account its ongoing operations and strategic development set out in a three-year plan approved by the FS on the advice of EFAC. Departments are required to assess their needs for the coming year and to review whether savings in staffing and expenditure can be achieved. This requires departments to critically assess the value of existing services and the cost-effectiveness of delivery methods. The Finance Division scrutinises all budget requests and discusses them with individual departments before submitting a consolidated draft budget for scrutiny by senior management. The Governance Sub-Committee of EFAC then deliberates on the budget and recommends any changes it considers necessary, before putting it through EFAC to the FS for approval.

All expenditure items are subject to stringent financial controls through detailed procurement rules and guidelines. Compliance with these guidelines is subject to internal audit and is reviewed by independent auditors during the annual audit of the Exchange Fund. Expenses are analysed and reported to senior management every month.

The administrative expenditure in 2015 and the budgeted expenditure for core activities in 2016 are shown in Table 3. The difference between the 2015 actual expenditure and the 2016 budget arises mainly from an increase in staff costs, including the full-year effect of staff changes and pay review in 2015, and a net increase of 34 posts in 2016. The headcount change for 2016 was approved by the FS on the advice of EFAC.

Table 4 shows other expenses that are not directly related to the HKMA's own operations. Expenses related to the provision of premises for international organisations, whose presence in Hong Kong promotes our status as an international financial centre, are expected to remain broadly stable in 2016. Spending on financial infrastructure is related to the operation and continued development of payment and settlement systems to enable markets to function efficiently and securely. The HKMA also provides operational support to the Hong Kong Deposit Protection Board on a cost-recovery basis as endorsed by the FS according to section 6 of the Deposit Protection Scheme Ordinance (Cap. 581).

**Table 3** HKMA administrative expenditure

HK\$ million	2015 Budget	2015 Actual	2016 Budget
<b>Staff costs</b>	1,169		1,259
Salaries and other staff costs		990	
Retirement benefit costs		91	
<b>Premises expenses</b>			
Operating lease charges	26	26	26
Other premises expenses (including management fees and utility charges)	59	56	62
<b>General operating costs</b>			
Maintenance of office and computer equipment	83	78	93
Financial information and communication services (including trading, dealing terminals and data link charges)	57	48	60
External relations (including international meetings)	51	28	55
Public education and publicity	12	12	15
Professional and other services	63	29	60
Training	10	6	12
Others	17	14	19
<b>Total administrative expenditure</b>	<b>1,547</b>	<b>1,378</b>	<b>1,661</b>

**Table 4** Additional expenses

HK\$ million	2015 Budget	2015 Actual	2016 Budget
Subsidy to the Hong Kong Institute for Monetary Research	17	11	19
Premises expenses of international financial organisations in Hong Kong	40	40	40
Service fees for financial infrastructure	100	85	63

# Corporate Functions

## Financial disclosure

The HKMA adopts international standards in financial disclosure as far as they are applicable to central banking operations. These include the Hong Kong Financial Reporting Standards (HKFRSs) and other applicable reporting requirements (for example, the IMF's Special Data Dissemination Standard). Working with the external auditor and other accounting professionals, the Finance Division prepares and presents the Exchange Fund's financial statements in accordance with the HKFRSs. To achieve a high level of transparency, the HKMA also provides detailed disclosure and thorough analyses of a wide range of expense items and budgetary information in its *Annual Report*.

## INFORMATION TECHNOLOGY

The Information Technology (IT) Division maintained 100% operational uptime in 2015 for all time-critical systems.

To meet the Banking Departments' evolving needs for IT support in discharging their responsibilities, the existing banking supervisory information system has been upgraded and fully implemented. The work covered three main areas: (i) new system infrastructure, (ii) development of business intelligence tools and, (iii) enhancement of the existing banking return electronic submission system. The new business intelligence and workflow features have enhanced the HKMA's capacity to oversee various supervisory issues, keep track of work targets and put in place additional safeguards to ensure that supervisory work is carried out according to established procedures with a clear audit trail.

A new supervisory information system was also introduced in 2015 to accommodate the implementation of a regulatory regime for stored value facilities and retail payment systems. The new system covers the electronic submission of regulated information, processing and data downloading, and various other work-flow features to help the HKMA process applications of regulated entities and perform relevant supervisory and enforcement functions. It ensures the supervisory work is carried out according to established procedures with a clear audit trail.

Ageing components of the HKMA's IT infrastructure were updated in batches to ensure the continued reliability of its IT systems. The Division also began phased implementation of its Virtual Desktop Infrastructure (VDI) as a platform to support office automation services and enhance operational efficiency.

IT security continued to be one of the Division's top priorities, with the IT security information and event management software providing early warning to forestall possible security attacks. In 2015, a range of IT security detection software was upgraded to the latest versions and new defence systems were installed to strengthen system robustness in preventing cyber attacks.

## SETTLEMENT SERVICES

The Settlement Section provides settlement and operational support to ensure the sufficient and reliable transfer of funds or assets of the Exchange Fund arising from reserves management, monetary operations and other activities, as well as for the administration of the HKMA. In view of the potential settlement risks from a broad range of transactions involving different products and penetrating into various markets undertaken by the HKMA, the Settlement Section remains vigilant towards operational issues that may arise during the provision of settlement services. Since 2013, the Settlement Section has been implementing system enhancements in order to upgrade its settlement processes through automation and improve its operational controls. This would further ensure accurate and efficient transfers of funds and assets of the Exchange Fund. The Settlement Section is committed to effective risk control mechanisms for settlement and operational support.

## OFFICE OF THE GENERAL COUNSEL

The Office of the General Counsel (OGC) is responsible for providing legal advice to the HKMA on all aspects of its functions and activities. It comprises 15 lawyers who assist the HKMA in maintaining Hong Kong's banking and monetary stability, enhancing its financial infrastructure, maintaining its status as an international financial centre, and ensuring the effective management of the Exchange Fund.

In addition to providing legal support to the operation of each line department within the HKMA, the OGC assists in the planning and implementation of projects, initiatives and operations, most of which involve complex issues of commercial, regulatory and administrative law. Examples include:

- implementation of the Basel III framework, including the Banking (Capital) (Amendment) Rules 2015
- formulation and implementation of the regulatory regime for the over-the-counter derivatives market, including the draft expanded Securities and Futures (OTC Derivative Transactions — Reporting and Record Keeping Obligations) Rules and the draft Securities and Futures (OTC Derivative Transactions — Clearing and Record Keeping Obligations and Designation of Central Counterparties) Rules
- implementation of the regulatory regime for stored value facilities and retail payment systems
- formulation of proposals with the Government and other regulators for an effective resolution regime for financial institutions in Hong Kong, including provision of legal advice on issues arising from the drafting of the Financial Institutions (Resolution) Bill and the public consultation in connection therewith
- provision of advice on recovery and resolution planning of global systemically important banks, including advising on the drafting of bank-specific cross-border co-operation agreements
- involvement in initiatives for cross-border resolution for global systemically important financial institutions, including participation in the Financial Stability Board (FSB) Resolution Steering Group and Legal Experts Group on Cross-border Recognition of Resolution Actions
- deliberation on arrangements to improve information gaps and systemic linkages for global systemically important banks, including participation in the FSB Data Gaps Implementation Group
- advising on the impact of regulatory reforms in overseas jurisdictions, including under the Dodd-Frank Wall Street Reform and Consumer Protection Act and the European Market Infrastructure Regulation
- advising on the legal implications of certain business rules or regulations under the Shanghai-Hong Kong Stock Connect Programme
- advising on the amendments to the Deposit Protection Scheme in Hong Kong, including the Deposit Protection Scheme (Amendment) Bill 2015
- continued development of procedures for the prosecution of offences under the Anti-Money Laundering and Counter-Terrorist Financing (Financial Institutions) Ordinance and the Securities and Futures Ordinance in respect of the business of OTC Derivative Transactions
- conduct and management of litigation matters involving the HKMA.

The OGC provides comments to government bureaux on significant legislative proposals from time to time, such as those listed above. OGC lawyers participate in regular meetings and conferences for central bankers, financial regulators and the banking community to keep abreast of topical developments in major international financial centres and to discuss and resolve issues of current legal concern. The OGC assists in promoting education and awareness of the HKMA's work and legal issues by taking up speaking engagements in academic programmes, professional symposiums and international forums.

## INTERNAL AUDIT

The Internal Audit Division independently assesses the adequacy and effectiveness of control, risk management and governance processes, and advises on opportunities for improvement. The Division reports directly to the Chief Executive of the HKMA and the EFAC Audit Sub-Committee (ASC).

# Corporate Functions

Using a risk-based approach, operational audits and system security reviews were conducted to cover all significant risk areas of the HKMA. The Division also advised on major system development projects and on internal control issues in response to requests from management and senior executives. The Division provided quarterly business risk updates to the Risk Committee, and quarterly reports to the senior executives and the ASC for audit engagement progress updates and key internal control matters.

## RISK MANAGEMENT

One of the most important tasks of the HKMA is to manage risks to the monetary and banking systems. Risk management is undertaken both at a working level in the day-to-day operations of the HKMA and at a higher level through strategic planning. There are two high-level committees under the HKMA's risk management framework, the Macro Surveillance Committee and the Risk Committee. Both Committees are chaired by the Chief Executive of the HKMA.

The terms of reference of the Macro Surveillance Committee are:

- to identify potential risks and threats to the monetary and financial system in Hong Kong and discuss possible measures to address such risks
- to review existing measures for managing risks in the monetary and financial system to identify possible gaps and ensure the adequacy of these measures
- to encourage cross-department sharing of relevant information on macro surveillance with a view to enhancing the macro surveillance capability of the HKMA.

The terms of reference of the Risk Committee are:

- to identify potential risks and threats to the organisation and devise strategies to reduce the impact of such events
- to review the existing system for managing risks across different departments to identify possible gaps and significant risks and ensure the adequacy of measures to address them
- to harmonise the criteria and methods of risk measurement and prioritise the resources management of risks identified
- to encourage a stronger risk management culture institutionally which promotes the proper levels of authorisation and controls.

Because of the growing complexity of the activities engaged by the HKMA, and the increasing public expectations of the organisation's work, the operational risk management process was strengthened in 2012. The framework now covers organisational risks at two levels: entity-level and department-level. Entity-level risks mainly refer to those which concern the entire organisation in the medium term, or which might call for a cross-departmental response. Potential or emerging risks identified by the business units, and the adequacy of the control measures and mitigating strategies they devise, are reported and reviewed quarterly. This is supplemented by a top-down approach to manage entity-level risks, in which senior colleagues heading different business units actively identify risks of wider impact and propose mitigating measures. These assessments are discussed at the Risk Committee, at which appropriate follow-up actions are decided.

## EXTERNAL AUDITOR

In accordance with section 7 of the Exchange Fund Ordinance, the Audit Commission of the Government of the Hong Kong Special Administrative Region audits the financial statements of the Exchange Fund. The Commission does not charge for this service.

# Calendar of Events 2015

**21 January**

The Financial Services and the Treasury Bureau in conjunction with HKMA, the Securities and Futures Commission (SFC) and the Insurance Authority jointly launch the 3-month second stage public consultation on establishing an effective resolution regime for financial institutions in Hong Kong.

**27 January**

The HKMA announces the countercyclical capital buffer (CCyB) rate for Hong Kong to be set at 0.625% with effect from 1 January 2016, reflecting the Basel III phase-in provisions.

**6 February**

The revised Code of Banking Practice is launched.

**27 February**

The seventh round of supervisory measures on property mortgage is introduced to strengthen banks' risk management and resilience.

**16 March**

Five authorized institutions are designated as Domestic Systemically Important Authorized Institutions, which are subject to a Higher Loss Absorbency requirement.

The Basel Committee on Banking Supervision published reports on Hong Kong's implementation of the Basel risk-based capital framework and the liquidity coverage ratio under its Regulatory Consistency Assessment Programme. Overall, Hong Kong was assessed as "compliant" in respect of both sets of Basel standards.

**27 March**

The Second Hong Kong-Malaysia Private Sector Dialogue on Offshore Renminbi (RMB) Business, led by the HKMA and Bank Negara Malaysia, is held in Johor Bahru, Malaysia.

**3 June**

Second issuance of sukuk (Islamic bond) under the Government Bond Programme.

**9 June**



The HKMA conducts a seminar in Toronto, Canada, to promote Hong Kong as a global hub for offshore RMB business.



## Calendar of Events 2015 (continued)

**9 July**



The third Hong Kong-Australia RMB Trade and Investment Dialogue, facilitated by the HKMA, Australian Treasury and the Reserve Bank of Australia, is held in Sydney, Australia.

The HKMA announces the launch of a new cross border linkage with the Mainland under the Fund Order Routing Service of the Central Moneymarkets Unit to provide order routing and settlement support to the Mainland-Hong Kong Mutual Recognition of Funds initiative.

**10 July**

Subsidiary legislation under the Securities and Futures (Amendment) Ordinance 2014 to implement mandatory reporting and related record keeping obligations under the new over-the-counter derivatives regulatory regime comes into effect.

**17 July**

The Inland Revenue (Amendment) (No.2) Ordinance 2015 is gazetted to extend profits tax exemption for offshore funds to private equity funds.

**7 August**



The fifth inflation-linked retail bond, or iBond, is issued under the Government Bond Programme.

**31 August**

The HKMA, together with the Hong Kong Association of Banks (HKAB) and its HKAB member banks announce joint efforts to raise public awareness of phone scams and help further protect bank customers' interests.





## Calendar of Events 2015 (continued)

**30 September** The HKMA and SFC jointly launch a consultation on introducing the first phase of mandatory clearing and the second phase of mandatory reporting under the new over-the-counter derivatives regulatory regime.

**9 October** Consultation response to the two stages of public consultation on establishing an effective resolution regime for financial institutions in Hong Kong is published.

**15-16 October**



The HKMA co-organises a high-level seminar in Beijing for independent non-executive directors of Hong Kong banks.

**23 October** The Banking (Capital) (Amendment) Rules 2015 to align certain aspects of the Banking (Capital) Rules more closely with the relevant Basel Committee capital standards are gazetted.

**13 November** The regulatory regime for stored value facilities and retail payment systems under the Payment Systems and Stored Value Facilities Ordinance commences operation.

The Deposit Protection Scheme (Amendment) Bill 2015, which seeks to adopt a gross payout approach to determine the amount of compensation payable to affected depositors in case the Deposit Protection Scheme is triggered, is gazetted.

**20 November** The Financial Institutions (Resolution) Bill is gazetted with a view to establishing a cross-sector resolution regime for financial institutions in Hong Kong in line with the international standards promulgated by the Financial Stability Board.

**26 November** The second Hong Kong-Thailand RMB Business Forum, facilitated by the HKMA and the Bank of Thailand, is held in Bangkok, Thailand.

**4 December** The Inland Revenue (Amendment) (No. 4) Bill 2015 is gazetted to implement the tax measures announced by the Financial Secretary in the 2015-16 Budget Speech to promote Hong Kong as a hub for corporate treasury centres.

**7 December** The Electronic Cheque (e-Cheque) service is launched to provide a more convenient way for bank customers to issue and deposit cheques online.

**10 December** The fifth meeting of the private-sector led Hong Kong-London Forum, facilitated by the HKMA and HM Treasury, is convened in Hong Kong to promote co-operation on the development of international RMB business.

## Calendar of Events 2015 (continued)

- 15 December** An International Monetary Fund (IMF) Staff Mission to Hong Kong publishes the Concluding Statement following the 2015 Article IV Consultation with the Hong Kong SAR. The Statement lauds the HKSAR Government's prudent fiscal management and robust regulatory regime for the financial system. The statement also reiterates IMF's continued support for the Linked Exchange Rate System, and endorses the counter-cyclical macroprudential measures implemented by the HKMA.
- 17 December** The HKMA announces an upward adjustment of the Base Rate by 25 basis points to 0.75% according to a pre-set formula. The increase in the Base Rate follows the 25-basis point upward shift in the target range for the US federal funds rate on 16 December (US time).
- 31 December** The HKMA announces the updated list of Domestic Systemically Important Authorized Institutions for 2016, together with their corresponding Higher Loss Absorbency requirement to take effect from 1 January 2017.

## The Exchange Fund

- Report of the Director of Audit
- Exchange Fund Financial Statements

# Report of the Director of Audit



**Audit Commission**  
The Government of the Hong Kong Special Administrative Region

## Independent Audit Report

### To the Financial Secretary

I certify that I have audited the financial statements of the Exchange Fund and its subsidiaries (“the Group”) set out on pages 134 to 222, which comprise the balance sheets of the Exchange Fund and of the Group as at 31 December 2015, and their income and expenditure accounts, statements of comprehensive income, statements of changes in equity and statements of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### Monetary Authority’s Responsibility for the Financial Statements

The Monetary Authority is responsible for the preparation of financial statements that give a true and fair view in accordance with the directive of the Chief Executive made under section 7 of the Exchange Fund Ordinance (Cap. 66) and Hong Kong Financial Reporting Standards, and for such internal control as the Monetary Authority determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor’s Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with the directive of the Chief Executive made under section 7 of the Exchange Fund Ordinance and the Audit Commission auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity’s preparation of financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity’s internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Monetary Authority, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

# Report of the Director of Audit (continued)

## Opinion

In my opinion, the financial statements give a true and fair view of the financial position of the Exchange Fund and of the Group as at 31 December 2015, and of their financial performance and cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards and have been properly prepared in accordance with the directive of the Chief Executive made under section 7 of the Exchange Fund Ordinance.

**David Sun**  
Director of Audit

7 April 2016

Audit Commission  
26th Floor  
Immigration Tower  
7 Gloucester Road  
Wanchai, Hong Kong

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# Exchange Fund – Income and Expenditure Account

for the year ended 31 December 2015

(Expressed in millions of Hong Kong dollars)	Note	Group		Fund	
		2015	2014	2015	2014
<b>INCOME</b>					
Interest income		18,001	16,270	16,875	14,980
Dividend income		14,275	13,498	13,403	15,250
Income from investment properties		2,685	2,323	-	-
Net realised and unrealised gains/(losses)		(200)	68,080	(9,902)	61,589
Net exchange loss		(43,870)	(51,649)	(44,937)	(52,759)
Investment income	4(a)	(9,109)	48,522	(24,561)	39,060
Bank licence fees		131	131	131	131
Other income		603	558	82	89
<b>TOTAL INCOME</b>		<b>(8,375)</b>	49,211	<b>(24,348)</b>	39,280
<b>EXPENDITURE</b>					
Interest expense on placements by Fiscal Reserves, HKSAR Government funds and statutory bodies	4(b)	(61,389)	(36,147)	(61,389)	(36,147)
Other interest expense	4(c)	(1,488)	(2,110)	(815)	(1,418)
Operating expenses	4(d)	(4,393)	(4,020)	(3,581)	(3,324)
Note and coin expenses	4(e)	(464)	(447)	(464)	(447)
Charge for impairment losses on loans		-	(1)	-	-
<b>TOTAL EXPENDITURE</b>		<b>(67,734)</b>	(42,725)	<b>(66,249)</b>	(41,336)
<b>(DEFICIT)/SURPLUS BEFORE SHARE OF PROFIT OF ASSOCIATES AND JOINT VENTURES</b>					
		<b>(76,109)</b>	6,486	<b>(90,597)</b>	(2,056)
Share of profit of associates and joint ventures, net of tax		1,977	1,730	-	-
<b>(DEFICIT)/SURPLUS BEFORE TAXATION</b>					
		<b>(74,132)</b>	8,216	<b>(90,597)</b>	(2,056)
Income tax	5	(123)	(83)	-	-
<b>(DEFICIT)/SURPLUS FOR THE YEAR</b>					
		<b>(74,255)</b>	8,133	<b>(90,597)</b>	(2,056)
<b>ATTRIBUTABLE TO:</b>					
Owner of the Fund		(74,473)	8,006	(90,597)	(2,056)
Non-controlling interests		218	127	-	-
		<b>(74,255)</b>	8,133	<b>(90,597)</b>	(2,056)

The notes on pages 140 to 222 form part of these financial statements.



# Exchange Fund – Statement of Comprehensive Income

for the year ended 31 December 2015

(Expressed in millions of Hong Kong dollars)	Note	Group		Fund	
		2015	2014	2015	2014
<b>(DEFICIT)/SURPLUS FOR THE YEAR</b>		<b>(74,255)</b>	8,133	<b>(90,597)</b>	(2,056)
<b>OTHER COMPREHENSIVE LOSS</b>					
<b>Items that may be reclassified subsequently to income and expenditure account</b>					
Available-for-sale securities					
fair value changes on revaluation	29	<b>(3,923)</b>	(944)	-	-
fair value changes on disposal transferred to income and expenditure account	29	<b>(157)</b>	(63)	-	-
tax effect	29	<b>40</b>	(20)	-	-
Cash flow hedges					
fair value changes transferred to income and expenditure account	29	<b>3</b>	3	-	-
tax effect	29	<b>(1)</b>	-	-	-
Exchange differences					
translation of financial statements of overseas subsidiaries, associates and joint ventures	29	<b>(935)</b>	(906)	-	-
release of translation reserve upon disposal of a subsidiary classified as assets held for sale	29	-	(13)	-	-
<b>OTHER COMPREHENSIVE LOSS FOR THE YEAR, NET OF TAX</b>		<b>(4,973)</b>	(1,943)	-	-
<b>TOTAL COMPREHENSIVE (LOSS)/INCOME FOR THE YEAR</b>		<b>(79,228)</b>	6,190	<b>(90,597)</b>	(2,056)
<b>TOTAL COMPREHENSIVE (LOSS)/INCOME FOR THE YEAR ATTRIBUTABLE TO:</b>					
Owner of the Fund		<b>(79,434)</b>	6,079	<b>(90,597)</b>	(2,056)
Non-controlling interests		<b>206</b>	111	-	-
		<b>(79,228)</b>	6,190	<b>(90,597)</b>	(2,056)

The notes on pages 140 to 222 form part of these financial statements.

# Exchange Fund – Balance Sheet

as at 31 December 2015

(Expressed in millions of Hong Kong dollars)	Note	Group		Fund	
		2015	2014	2015	2014
<b>ASSETS</b>					
Cash and money at call	7	188,547	196,701	187,835	195,528
Placements with banks and other financial institutions	8	123,880	138,239	102,681	120,080
Financial assets designated at fair value	9	3,015,402	2,731,215	3,002,620	2,719,373
Available-for-sale securities	10	104,475	87,656	493	493
Derivative financial instruments	11(a)	5,831	7,554	5,357	6,870
Held-to-maturity securities	12	10,274	9,169	–	–
Loan portfolio	13	11,502	15,572	–	–
Gold	14	550	621	550	621
Other assets	15	22,847	18,752	21,994	18,020
Interests in subsidiaries	16	–	–	98,331	84,922
Interests in associates and joint ventures	17	21,188	16,448	–	–
Investment properties	18	23,621	17,493	–	–
Property, plant and equipment	19(a)	3,192	3,281	3,009	3,088
<b>TOTAL ASSETS</b>		<b>3,531,309</b>	3,242,701	<b>3,422,870</b>	3,148,995
<b>LIABILITIES AND EQUITY</b>					
Certificates of Indebtedness	20	357,863	340,184	357,863	340,184
Government-issued currency notes and coins in circulation	20	11,335	11,028	11,335	11,028
Balance of the banking system	21	391,343	239,183	391,343	239,183
Placements by banks and other financial institutions	22	66,907	64,001	66,907	64,001
Placements by Fiscal Reserves	23	833,548	788,681	833,548	788,681
Placements by Hong Kong Special Administrative Region Government funds and statutory bodies	24	280,846	261,139	280,846	261,139
Exchange Fund Bills and Notes issued	25	827,792	751,946	827,792	752,446
Derivative financial instruments	11(a)	3,256	5,676	1,102	3,585
Bank loans	26	11,318	8,778	–	–
Other debt securities issued	27	33,463	33,270	–	–
Other liabilities	28	114,283	60,233	107,279	53,296
<b>Total liabilities</b>		<b>2,931,954</b>	2,564,119	<b>2,878,015</b>	2,513,543
Accumulated surplus	29	591,522	665,995	544,855	635,452
Revaluation reserve	29	8,501	12,539	–	–
Translation reserve	29	(1,753)	(830)	–	–
Total equity attributable to owner of the Fund		<b>598,270</b>	677,704	<b>544,855</b>	635,452
Non-controlling interests	29	1,085	878	–	–
<b>Total equity</b>		<b>599,355</b>	678,582	<b>544,855</b>	635,452
<b>TOTAL LIABILITIES AND EQUITY</b>		<b>3,531,309</b>	3,242,701	<b>3,422,870</b>	3,148,995

**Norman T. L. Chan**

Monetary Authority

7 April 2016

The notes on pages 140 to 222 form part of these financial statements.

# Exchange Fund – Statement of Changes in Equity

for the year ended 31 December 2015

(Expressed in millions of Hong Kong dollars)	Note	Attributable to owner of the Fund			Total attributable to owner of the Fund	Non-controlling interests	Total
		Accumulated surplus	Revaluation reserve	Translation reserve			
<b>Group</b>							
At 1 January 2014		657,989	13,563	73	671,625	566	672,191
Surplus for the year	29	8,006	-	-	8,006	127	8,133
Other comprehensive loss for the year	29	-	(1,024)	(903)	(1,927)	(16)	(1,943)
Total comprehensive income for the year		8,006	(1,024)	(903)	6,079	111	6,190
Capital injection by non-controlling interests	29	-	-	-	-	228	228
Disposal of a subsidiary classified as assets held for sale	29	-	-	-	-	(13)	(13)
Dividends paid to non-controlling interests	29	-	-	-	-	(14)	(14)
At 31 December 2014		665,995	12,539	(830)	677,704	878	678,582
At 1 January 2015		<b>665,995</b>	<b>12,539</b>	<b>(830)</b>	<b>677,704</b>	<b>878</b>	<b>678,582</b>
Deficit for the year	29	(74,473)	-	-	(74,473)	218	(74,255)
Other comprehensive loss for the year	29	-	(4,038)	(923)	(4,961)	(12)	(4,973)
Total comprehensive loss for the year		(74,473)	(4,038)	(923)	(79,434)	206	(79,228)
Capital injection by non-controlling interests	29	-	-	-	-	14	14
Dividends paid to non-controlling interests	29	-	-	-	-	(13)	(13)
At 31 December 2015		<b>591,522</b>	<b>8,501</b>	<b>(1,753)</b>	<b>598,270</b>	<b>1,085</b>	<b>599,355</b>
<b>Fund</b>							
At 1 January 2014		637,508	-	-	637,508	-	637,508
Deficit and total comprehensive loss for the year	29	(2,056)	-	-	(2,056)	-	(2,056)
At 31 December 2014		635,452	-	-	635,452	-	635,452
At 1 January 2015		<b>635,452</b>	-	-	<b>635,452</b>	-	<b>635,452</b>
Deficit and total comprehensive loss for the year	29	(90,597)	-	-	(90,597)	-	(90,597)
At 31 December 2015		<b>544,855</b>	-	-	<b>544,855</b>	-	<b>544,855</b>

The notes on pages 140 to 222 form part of these financial statements.

# Exchange Fund – Statement of Cash Flows

for the year ended 31 December 2015

(Expressed in millions of Hong Kong dollars)	Note	Group		Fund	
		2015	2014	2015	2014
<b>Cash flows from operating activities</b>					
(Deficit)/Surplus before taxation		<b>(74,132)</b>	8,216	<b>(90,597)</b>	(2,056)
<b>Adjustments for:</b>					
Interest income	4(a)	<b>(18,001)</b>	(16,270)	<b>(16,875)</b>	(14,980)
Dividend income	4(a)	<b>(14,275)</b>	(13,498)	<b>(13,403)</b>	(15,250)
Change in fair value of investment properties	4(a)	<b>(1,703)</b>	(1,272)	-	-
Net gains on disposal of available-for-sale securities	4(a)	<b>(10,554)</b>	(6,984)	-	-
Interest expense	4(b) & 4(c)	<b>62,877</b>	38,257	<b>62,204</b>	37,565
Depreciation	4(d)	<b>198</b>	189	<b>151</b>	136
Share of profit of associates and joint ventures		<b>(1,977)</b>	(1,730)	-	-
Gain on disposal of a subsidiary classified as assets held for sale		-	(13)	-	-
Net loss on disposal of property, plant and equipment		<b>5</b>	-	-	-
Elimination of exchange differences and other non-cash items		<b>8,154</b>	5,177	<b>8,052</b>	5,012
Interest received		<b>17,489</b>	16,140	<b>16,371</b>	14,813
Interest paid		<b>(16,143)</b>	(10,756)	<b>(15,549)</b>	(10,080)
Dividends received		<b>14,248</b>	13,401	<b>12,891</b>	12,532
Income tax paid		<b>(74)</b>	(72)	-	-
		<b>(33,888)</b>	30,785	<b>(36,755)</b>	27,692
Change in fair value of derivatives and other debt securities issued		<b>(1,022)</b>	(2,288)	<b>(975)</b>	(2,924)
Change in carrying amount of:					
– placements with banks and other financial institutions		<b>(4,633)</b>	(923)	<b>(1,580)</b>	(755)
– financial assets designated at fair value		<b>(205,192)</b>	(148,707)	<b>(204,252)</b>	(150,152)
– loan portfolio		<b>4,070</b>	6,696	-	-
– gold		<b>71</b>	1	<b>71</b>	1
– other assets		<b>(3,603)</b>	42,625	<b>(3,449)</b>	42,474
– Certificates of Indebtedness, government-issued currency notes and coins in circulation		<b>17,986</b>	13,265	<b>17,986</b>	13,265
– balance of the banking system		<b>152,160</b>	75,090	<b>152,160</b>	75,090
– placements by banks and other financial institutions		<b>2,906</b>	13,267	<b>2,906</b>	13,267
– placements by Fiscal Reserves		<b>44,867</b>	14,819	<b>44,867</b>	14,819
– placements by Hong Kong Special Administrative Region Government funds and statutory bodies		<b>19,707</b>	46,228	<b>19,707</b>	46,228
– Exchange Fund Bills and Notes issued		<b>75,846</b>	(30,659)	<b>75,346</b>	(30,159)
– other liabilities		<b>7,393</b>	(42,226)	<b>7,337</b>	(42,214)
<b>Net cash from operating activities</b>		<b>76,668</b>	17,973	<b>73,369</b>	6,632

# Exchange Fund – Statement of Cash Flows (continued)

for the year ended 31 December 2015

(Expressed in millions of Hong Kong dollars)	Note	Group		Fund	
		2015	2014	2015	2014
<b>Cash flows from investing activities</b>					
Increase in investments in subsidiaries		-	-	-	(167)
Loans to subsidiaries		-	-	(13,409)	(16,210)
Increase in interests in associates and joint ventures		(3,019)	(5,536)	-	-
Proceeds from sale or redemption of available-for-sale securities		22,618	17,983	-	-
Purchase of available-for-sale securities		(32,973)	(33,502)	-	-
Proceeds from sale or redemption of held-to-maturity securities		957	2,036	-	-
Purchase of held-to-maturity securities		(2,113)	(2,625)	-	-
Proceeds from disposal of a subsidiary classified as assets held for sale		-	117	-	-
Purchase of investment properties		(5,694)	-	-	-
Purchase of property, plant and equipment		(114)	(130)	(72)	(110)
Dividends received from subsidiaries		-	-	487	2,621
<b>Net cash used in investing activities</b>		<b>(20,338)</b>	<b>(21,657)</b>	<b>(12,994)</b>	<b>(13,866)</b>
<b>Cash flows from financing activities</b>					
Bank loans raised		3,106	-	-	-
Proceeds from issue of other debt securities		22,992	30,401	-	-
Redemption of other debt securities issued		(22,527)	(27,505)	-	-
Capital injection by non-controlling interests		14	228	-	-
Dividends paid to non-controlling interests		(13)	(14)	-	-
<b>Net cash from financing activities</b>		<b>3,572</b>	<b>3,110</b>	<b>-</b>	<b>-</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>59,902</b>	<b>(574)</b>	<b>60,375</b>	<b>(7,234)</b>
<b>Cash and cash equivalents at 1 January</b>		<b>322,907</b>	<b>328,494</b>	<b>313,782</b>	<b>326,028</b>
<b>Effect of foreign exchange rate changes</b>		<b>(8,053)</b>	<b>(5,013)</b>	<b>(8,052)</b>	<b>(5,012)</b>
<b>Cash and cash equivalents at 31 December</b>	30	<b>374,756</b>	<b>322,907</b>	<b>366,105</b>	<b>313,782</b>

The notes on pages 140 to 222 form part of these financial statements.

# Exchange Fund – Notes to the Financial Statements

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 1 PRINCIPAL ACTIVITIES

The Monetary Authority, under delegated authority from the Financial Secretary as Controller of the Exchange Fund (the Fund), manages the Fund in accordance with the provisions of the Exchange Fund Ordinance (Cap. 66). The principal activities of the Fund are safeguarding the exchange value of the currency of Hong Kong and maintaining the stability and integrity of Hong Kong's monetary and financial systems.

The assets of the Fund are managed as four portfolios: the Backing Portfolio, the Investment Portfolio, the Long-Term Growth Portfolio and the Strategic Portfolio. The assets of the Backing Portfolio fully match the Monetary Base, under Hong Kong's Currency Board system. The Investment Portfolio is invested primarily in the bond and equity markets of the member countries of the Organisation for Economic Co-operation and Development. The Long-Term Growth Portfolio holds private equity and real estate investments. The Strategic Portfolio holds shares in Hong Kong Exchanges and Clearing Limited acquired by the Government of the Hong Kong Special Administrative Region (HKSAR) for the account of the Fund for strategic purposes. Operating segment information is set out in note 31.

## 2 SIGNIFICANT ACCOUNTING POLICIES

### 2.1 Statement of compliance

These financial statements have been prepared in accordance with all applicable Hong Kong Financial Reporting Standards (HKFRSs), which is a collective term that includes all applicable individual Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards (HKASs) and Interpretations issued by the Hong Kong Institute of Certified Public Accountants (HKICPA), and accounting principles generally accepted in Hong Kong. A summary of the significant accounting policies adopted by the Fund and its subsidiaries (together referred to as the Group) is set out below.

The HKICPA has issued certain new and revised HKFRSs that are first effective or available for early adoption for the current accounting period. Note 3 provides information on the changes, if any, in accounting policies resulting from initial adoption of these developments to the extent that they are relevant to the Group for the current and prior accounting periods reflected in these financial statements.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.2 Basis of preparation of the financial statements

The Group financial statements include the financial statements of the Group as well as the Group's interests in associates and joint ventures. The principal activities of the principal subsidiaries, associates and joint ventures are shown in notes 16 and 17.

The measurement basis used in the preparation of the financial statements is historical cost except that the following assets and liabilities are stated at their fair values as explained in the accounting policies set out below:

- trading financial instruments (note 2.6.2.1);
- financial assets and financial liabilities designated at fair value (note 2.6.2.2);
- available-for-sale securities (note 2.6.2.5);
- gold (note 2.11); and
- investment properties (note 2.12).

The preparation of financial statements in conformity with HKFRSs requires management to make judgements, estimates and assumptions that affect the application of policies and the reported amounts of assets, liabilities, income and expenditure. The estimates and associated assumptions are based on experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Note 18 contains information about the assumptions relating to fair value estimation of investment properties. Note 37 contains information about the assumptions relating to fair value estimation of financial instruments. There are no critical accounting judgements involved in the application of the Group's accounting policies except for the valuation of certain financial instruments as set out in note 2.5.

## 2.3 Subsidiaries and non-controlling interests

A subsidiary is an entity controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. When assessing whether the Group has power, only substantive rights (held by the Group and other parties) are considered.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

An investment in a subsidiary is consolidated into the Group financial statements from the date that control commences until the date that control ceases.

Intra-group balances, transactions and cash flows and any unrealised profits and losses arising from intra-group transactions are eliminated in full in preparing the Group financial statements.

Non-controlling interests represent the equity in a subsidiary not attributable directly or indirectly to the Fund, and in respect of which the Group has not agreed any additional terms with the holders of those interests which would result in the Group as a whole having a contractual obligation in respect of those interests that meets the definition of a financial liability. Non-controlling interests are presented in the Group balance sheet within equity, separately from equity attributable to the owner of the Fund. Non-controlling interests in the results of the Group are presented on the face of the Group income and expenditure account and the Group statement of comprehensive income as an allocation of the surplus or deficit and total comprehensive income or loss for the year between non-controlling interests and the owner of the Fund.

In the balance sheet of the Fund, its investments in subsidiaries are stated at cost less impairment losses, if any (note 2.14).

## **2.4 Associates and joint ventures**

An associate is an entity in which the Group has significant influence, but not control or joint control, over its management, through its power to participate in the financial and operating policy decisions.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Joint control is the contractually agreed sharing of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

An interest in an associate or a joint venture is accounted for in the Group financial statements under the equity method and is initially recorded at cost, adjusted for any excess or deficit of the Group's share of the acquisition-date fair values of the investee's identifiable net assets over the cost of the investment (if any). Thereafter, the investment is adjusted for the post acquisition change in the Group's share of the net assets of the associate or the joint venture and any impairment loss relating to the investment.

The Group income and expenditure account and statement of comprehensive income include the Group's share of the post-tax results of the associates and the joint ventures for the year. When the Group's share of losses exceeds its interest in the associates or the joint ventures, the Group's interest is reduced to nil and recognition of further losses is discontinued except to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associates or the joint ventures. For this purpose, the Group's interest is the carrying amount of the investment under the equity method together with the Group's long-term interests that in substance form part of the Group's net investment in the associates or the joint ventures.



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

Unrealised profits and losses resulting from transactions between the Group and its associates and joint ventures are eliminated to the extent of the Group's interests in the associates or the joint ventures.

When the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in the associate or the joint venture, with a resulting gain or loss being recognised in the income and expenditure account. Any interest retained in the associate or the joint venture at the date when significant influence or joint control is lost is recognised at fair value and this amount is regarded as the fair value on initial recognition of a financial asset (note 2.6.1) or, when appropriate, the cost on initial recognition of an investment in an associate.

In the balance sheet of the Fund, interests in associates and joint ventures are stated at cost less impairment losses, if any (note 2.14).

## **2.5 Fair value measurement**

The Group measures certain financial instruments, all investment properties and gold at fair value at each balance sheet date. The fair values of financial instruments measured at amortised cost are disclosed in note 37.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- (a) in the principal market for the asset or liability, or
- (b) in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset for its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The Group measures fair values using the following fair value hierarchy that reflects the significance of inputs used in making the measurements:

- (a) Level 1 – fair values are quoted prices (unadjusted) in active markets for identical assets or liabilities;
- (b) Level 2 – fair values are determined involving inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices); and
- (c) Level 3 – fair values are determined with inputs that are not based on observable market data (unobservable inputs).

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the balance sheet date.

## **2.6 Financial assets and financial liabilities**

### **2.6.1 Initial recognition**

The Group classifies its financial assets and financial liabilities into different categories at inception, depending on the purpose for which the assets were acquired or the liabilities were incurred. The categories are: trading financial instruments, financial assets and financial liabilities designated at fair value, loans and receivables, held-to-maturity securities, available-for-sale securities and other financial liabilities.

An analysis of the Group's financial assets and financial liabilities by category is set out in note 6.

Financial assets and financial liabilities are measured initially at fair value plus, in the case of a financial asset or financial liability not at fair value through the income and expenditure account, transaction costs that are directly attributable to the acquisition of the financial assets or the issue of the financial liabilities. Transaction costs on trading financial instruments and financial assets and financial liabilities designated at fair value are expensed immediately.

The Group recognises financial assets and financial liabilities on the date it becomes a party to the contractual provisions of the instrument. Purchases or sales of derivative financial instruments are recognised using trade date accounting. Purchases or sales of trading liabilities and financial assets and financial liabilities designated at fair value, which are settled within the time frame established generally by regulation or convention in the market place concerned, are also recognised using trade date accounting.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.6.2 Categorisation

### 2.6.2.1 Trading financial instruments

The Group does not engage in active trading of financial instruments. However, derivative financial instruments that do not qualify for hedge accounting (note 2.9) and short positions in Exchange Fund Bills and Notes (EFBN) are categorised as “trading” under HKAS 39, Financial Instruments: Recognition and Measurement.

Trading financial instruments are carried at fair value. Changes in the fair value are included in the income and expenditure account in the period in which they arise.

### 2.6.2.2 Financial assets and financial liabilities designated at fair value

Financial assets and financial liabilities designated at fair value primarily consist of:

- financial assets and financial liabilities that are managed, evaluated and reported internally on a fair value basis; and
- debt securities issued by the Group through a subsidiary, The Hong Kong Mortgage Corporation Limited (HKMC), which contain embedded derivatives that significantly modify the cash flows that would otherwise be required under the contracts.

Financial assets and financial liabilities under this category are carried at fair value. Changes in the fair value are included in the income and expenditure account in the period in which they arise.

### 2.6.2.3 Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and which the Group has no intention of trading, other than those that the Group, upon initial recognition, designates as at fair value or as available-for-sale. This category includes placements with banks and other financial institutions, cash and money at call, and the loan portfolio purchased by the Group through the HKMC.

Loans and receivables are carried at amortised cost using the effective interest method, less impairment losses if any (note 2.10).

The effective interest method is a method of calculating the amortised cost of a financial asset or a financial liability and of allocating the interest income or interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument but does not consider future credit losses. The calculation includes all fees paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts.

## Exchange Fund – Notes to the Financial Statements *(continued)*

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 2.6.2.4 Held-to-maturity securities

Held-to-maturity securities are non-derivative financial assets with fixed or determinable payments and fixed maturity which the Group has the positive intention and ability to hold to maturity, other than (a) those that the Group, upon initial recognition, designates as at fair value or as available-for-sale; and (b) those that meet the definition of loans and receivables.

Held-to-maturity securities are carried at amortised cost using the effective interest method, less impairment losses if any (note 2.10).

### 2.6.2.5 Available-for-sale securities

Available-for-sale securities are non-derivative securities that are designated as available-for-sale or are not classified in any of the other categories above. They include securities intended to be held for an indefinite period of time, but which may be sold in response to needs for liquidity or changes in the market environment.

Available-for-sale securities are carried at fair value. Unrealised gains and losses arising from changes in the fair value are recognised in other comprehensive income and accumulated separately in the revaluation reserve, except for impairment losses, if any (note 2.10). Foreign exchange gains and losses on monetary items are recognised in the income and expenditure account. Foreign exchange gains and losses on non-monetary items are recognised in other comprehensive income.

The investment by the Fund in the shares of the Bank for International Settlements is held in order to participate in it on a long-term basis. As these shares do not have a quoted market price in an active market and the fair value cannot be reliably measured, they are carried at cost less impairment losses, if any (note 2.10).

When available-for-sale securities are sold, gains or losses on disposal include the difference between the net sale proceeds and the carrying amount, and the accumulated fair value adjustments which are released from equity to the income and expenditure account.

### 2.6.2.6 Other financial liabilities

Other financial liabilities are financial liabilities other than trading liabilities and those designated at fair value.

Other financial liabilities repayable on demand are stated at the principal amount payable. These include Certificates of Indebtedness, government-issued currency notes and coins in circulation (note 2.6.2.7), the balance of the banking system, placements by Fiscal Reserves, placements by the Bond Fund and placements by the Deposit Protection Scheme Fund.

Other financial liabilities with a fixed maturity and a predetermined rate are carried at amortised cost using the effective interest method. These include placements by banks and other financial institutions, other placements by HKSAR Government funds and statutory bodies, bank loans and other debt securities (other than those which contain embedded derivatives) issued by the Group through the HKMC.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.6.2.7 Certificates of Indebtedness and government-issued currency notes and coins in circulation

As backing for the banknote issues, each note-issuing bank is required to hold a non-interest-bearing Certificate of Indebtedness issued by the Financial Secretary, which is redeemable on demand. Payments for the issue and redemption of banknotes against these Certificates are made in US dollars at the fixed exchange rate of US\$1=HK\$7.80. Consistent with the requirement for backing banknote issues with US dollars, the issue and redemption of government-issued currency notes and coins are conducted with an agent bank against US dollars at the fixed exchange rate of US\$1=HK\$7.80.

The Group's liabilities in respect of Certificates of Indebtedness represent the US dollars payable to the note-issuing banks on redemption of the Certificates. The Group's liabilities in respect of government-issued currency notes and coins represent the US dollars payable to the agent bank when they are redeemed. Certificates of Indebtedness in issue and government-issued currency notes and coins in circulation are stated in the financial statements at the Hong Kong dollar equivalent of the US dollars required for their redemption using the closing exchange rate at the balance sheet date.

## 2.6.3 Derecognition

A financial asset is derecognised when the contractual rights to receive the cash flows from the financial asset expire, or where the financial asset together with substantially all the risks and rewards of ownership have been transferred.

The Group uses the weighted average method to determine realised gains and losses to be recognised in the income and expenditure account on derecognition.

A financial liability is derecognised when the obligation specified in the contract is discharged, is cancelled or expires.

Liabilities for EFBN in issue are derecognised when they are repurchased as a result of market making activities. The repurchase is considered a redemption of the debt.

## 2.6.4 Offsetting

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet where there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis, or realise the assets and settle the liabilities simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Group or the counterparty.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.6.5 Embedded derivatives

An embedded derivative is a component of a hybrid (combined) instrument that includes both the derivative and a host contract with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

An embedded derivative is separated from the host contract and accounted for as a derivative when (a) the economic characteristics and risks of the embedded derivative are not closely related to the host contract; and (b) the hybrid (combined) instrument is not measured at fair value with changes in fair value recognised in the income and expenditure account.

Where the embedded derivative is separated, the host contract is accounted for according to its category (note 2.6.2). The embedded derivative is measured at fair value with change in fair value recognised in the income and expenditure account.

## 2.7 Repurchase and reverse repurchase transactions

Securities sold subject to a simultaneous agreement to repurchase these securities at a certain later date at a fixed price (repurchase agreements) are retained on the balance sheet and measured in accordance with the measurement principles as stated in note 2.5. The proceeds from the sale are reported as liabilities in “placements by banks and other financial institutions” and are carried at amortised cost.

Conversely, securities purchased under agreements to resell (reverse repurchase agreements) are reported as receivables in “placements with banks and other financial institutions” and are carried at amortised cost.

Interest earned on reverse repurchase agreements and interest incurred on repurchase agreements are recognised as interest income and interest expense respectively, over the life of each agreement using the effective interest method.

## 2.8 Securities lending agreements

Where securities are loaned with the receipt of cash or other securities as collateral, they are retained on the balance sheet and measured in accordance with the measurement principles as stated in note 2.5. Where cash collateral is received, a liability is recorded in respect of the cash received in “placements by banks and other financial institutions”. Securities received as collateral are not recognised in the financial statements.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.9 Hedging

Hedge accounting recognises the offsetting effects on income and expenditure of changes in the fair values of the hedging instrument and the hedged item.

The Group documents, at the inception of the transaction, the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

### 2.9.1 Fair value hedge

A fair value hedge seeks to offset risks of changes in the fair value of a recognised asset or liability that will give rise to a gain or loss being recognised in the income and expenditure account.

Derivatives that are designated and qualify as fair value hedges are measured at fair value, with fair value changes recognised in the income and expenditure account, together with any changes in the fair value of the hedged item attributable to the risk being hedged.

When (a) a hedging instrument expires or is sold, terminated or exercised; (b) a hedge no longer meets the criteria for hedge accounting; or (c) the Group revokes designation of the hedge relationship, any adjustment to the carrying amount of a hedged item for which the effective interest method is used, is amortised to the income and expenditure account over the period to maturity.

### 2.9.2 Cash flow hedge

Where a derivative is designated as a hedge of the variability in cash flows of a recognised asset or liability or a highly probable forecast transaction, the effective portion of any gain or loss from remeasurement of the derivative to fair value is recognised in other comprehensive income and accumulated separately in equity. The ineffective portion of any gain or loss is recognised immediately in the income and expenditure account.

Amounts previously recognised in other comprehensive income and accumulated in equity are recycled to the income and expenditure account in the periods in which the hedged item will affect the income and expenditure account.

When (a) a hedging instrument expires or is sold, terminated or exercised; (b) a hedge no longer meets the criteria for hedge accounting; or (c) the Group revokes designation of the hedge relationship, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income and expenditure account. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was recognised in equity is immediately transferred to the income and expenditure account.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.10 Impairment of financial assets

The carrying amounts of loans and receivables, held-to-maturity securities and available-for-sale securities are reviewed at each balance sheet date to determine whether there is objective evidence of impairment. Objective evidence that a financial asset is impaired includes observable data that come to the attention of the Group about one or more of the following loss events which have an impact on the future cash flows of the financial asset that can be estimated reliably:

- significant financial difficulties of the issuer or borrower;
- a breach of contract such as default or delinquency in interest or principal payments;
- it becoming probable that the issuer or borrower will enter bankruptcy or other financial reorganisation;
- significant changes in the technological, market, economic or legal environment that have an adverse effect on the issuer or borrower;
- disappearance of an active market for that financial asset; and
- a significant or prolonged decline in the fair value of an investment in an equity instrument below its cost.

The Group first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes that asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Financial assets that are individually assessed for impairment and for which an impairment loss is or continues to be recognised are not included in a collective assessment of impairment. For exposures which are not individually significant, the Group will assess impairment collectively.

If any such evidence exists, the carrying amount of the financial asset is reduced to the estimated recoverable amount and the impairment loss is determined and recognised as described below.

For loans and receivables and held-to-maturity securities, an impairment loss is the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount of the asset is reduced through the use of an allowance account and the impairment loss is recognised in the income and expenditure account.

If in a subsequent period the amount of such impairment loss decreases and the decrease can be linked objectively to an event occurring after the impairment loss was recognised, the impairment loss is reversed through the income and expenditure account. A reversal of impairment losses is limited to the asset's carrying amount that would have been determined had no impairment loss been recognised in prior years.



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

For available-for-sale securities carried at fair value, the cumulative loss that has been recognised in the revaluation reserve is reclassified to the income and expenditure account. The amount of cumulative loss that is recognised in the income and expenditure account is the difference between the acquisition cost (net of any principal repayment and amortisation) and the current fair value, less any impairment loss on that financial asset previously recognised in the income and expenditure account. Impairment losses for debt securities are reversed if the subsequent increase in fair value can be objectively related to an event occurring after the impairment loss was recognised. Reversals of impairment losses in such circumstances are recognised in the income and expenditure account. Impairment losses for equity securities are not reversed through the income and expenditure account. Any subsequent increase in the fair value of equity securities is recognised in other comprehensive income.

For available-for-sale equity securities carried at cost, the impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the current market rate of return for a similar instrument. Such impairment losses are not reversed.

## **2.11 Gold**

Gold is carried at fair value. Changes in the fair value of gold are included in the income and expenditure account in the period in which they arise.

## **2.12 Investment properties**

Properties that are held for long-term rental yields, capital appreciation or both, and that are not occupied by the Group, are classified as investment properties.

Investment properties are recognised initially at cost, including related transaction costs. After initial recognition, investment properties are measured at fair value as assessed by independent professional valuers, or by the management based on the latest valuation made by the independent professional valuers. Fair value of the investment properties are measured based on the market or income approach. Under the market approach, the value is determined based on comparable transactions. For the income approach, the fair value is determined using valuation techniques including discounted cash flow and income capitalisation methods.

Any gain or loss arising from a change in fair value or the disposal of an investment property is recognised directly in the income and expenditure account. Rental income from investment properties is recognised in the income and expenditure account in equal instalments over the periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the use of the leased asset.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.13 Property, plant and equipment

The following items of property, plant and equipment are stated in the balance sheet at cost less accumulated depreciation and any impairment losses (note 2.14):

- a building held for own use situated on freehold land;
- land classified as held under a finance lease and building held for own use situated thereon; and
- plant and equipment, including plant, machinery, furniture, fixtures, equipment, motor vehicles and personal computers.

Intangible assets including computer software licences and system development costs are included in property, plant and equipment.

Freehold land is not depreciated. For other items of property, plant and equipment, depreciation is calculated to write off their cost less their estimated residual value, if any, on a straight-line basis over their estimated useful lives as follows:

- leasehold land classified as held under a finance lease over the unexpired term of lease
- buildings situated on freehold land 39 years
- buildings situated on leasehold land over the shorter of the unexpired term of lease and their estimated useful lives
- plant and equipment 3 to 15 years
- computer software licences and system development costs 3 to 5 years

A gain or loss arising from the disposal of an item of property, plant and equipment is determined as the difference between the net disposal proceeds and the carrying amount of the asset and is recognised in the income and expenditure account on the date of disposal.

## 2.14 Impairment of other assets

The carrying amounts of other assets, including interests in subsidiaries, interests in associates and joint ventures, and property, plant and equipment, are reviewed at each balance sheet date to identify any indication of impairment.

If any such indication exists, an impairment loss is recognised in the income and expenditure account whenever the carrying amount of an asset exceeds its recoverable amount. The recoverable amount of an asset is the greater of its fair value less costs of disposal and value in use.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.15 Cash and cash equivalents

Cash and cash equivalents comprise cash and money at call, placements with banks and other financial institutions and short-term highly liquid investments that are readily convertible to known amounts of cash and subject to an insignificant risk of changes in value, having been within three months of maturity when placed or acquired.

## 2.16 Revenue and expenditure recognition

### 2.16.1 Interest income and expense

Interest on the majority of the placements by Fiscal Reserves, placements by HKSAR Government funds and statutory bodies is payable at a fixed rate determined annually (notes 23 and 24). Interest on these placements is recognised in the income and expenditure account on an accrual basis, using the effective interest method.

Interest income and expense for all other interest-bearing financial assets and financial liabilities is recognised in the income and expenditure account on an accrual basis, using the effective interest method.

Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is thereafter recognised using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

### 2.16.2 Net realised and unrealised gains/(losses)

Realised gains or losses on financial instruments are recognised in the income and expenditure account when the financial instruments are derecognised.

Changes in fair value of trading financial instruments and financial assets and financial liabilities designated at fair value are recognised as unrealised gains or losses in the income and expenditure account in the period in which they arise.

### 2.16.3 Dividend and other income

Dividend income from listed equity securities is recognised in the income and expenditure account when the share price is quoted ex-dividend. Dividend income from unlisted equity securities is recognised when the shareholder's right to receive payment is unconditionally established.

Bank licence fees are fees receivable from authorized institutions under the Banking Ordinance (Cap. 155) and are accounted for in the period when the fees become receivable.

Other income includes rental income, Central Moneymarkets Unit fee income and net insurance premiums earned from the mortgage insurance business of the HKMC. Rental income is recognised on a straight-line basis over the lease term. The net premiums are recognised on a time-apportioned basis during the time the insurance coverage is effective. Other income is accounted for in the period when it becomes receivable.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.16.4 Contributions to staff retirement schemes

The Group operates several defined contribution schemes, including the Mandatory Provident Fund Scheme. Under these schemes, contributions payable each year are charged to the income and expenditure account. The assets of the staff retirement schemes are held separately from those of the Group.

## 2.16.5 Rental payments under operating leases

Leases where substantially all the rewards and risks of ownership remain with the lessor are classified as operating leases. Rental payments made under operating leases are charged to the income and expenditure account on a straight-line basis over the period of the relevant leases.

## 2.16.6 Income tax

Income tax payable on profits of subsidiaries is recognised as an expense in the period in which profits arise.

Deferred tax assets and liabilities arise from deductible and taxable temporary differences respectively, being the differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the assets can be utilised. Deferred tax liabilities are provided in full. For investment properties that are measured at fair value, the amount of deferred tax recognised is measured using the tax rates that would apply on sale of those assets at their carrying value at the reporting date on the presumption that their carrying amounts are recovered entirely through sale. In all other cases, the amount of deferred tax recognised is measured based on the expected manner of realisation or settlement of the carrying amount of the assets and liabilities, using tax rates enacted or substantively enacted at the balance sheet date. Deferred tax assets and liabilities are not discounted.

## 2.17 Foreign currency translation

The financial statements are presented in Hong Kong dollars, which is the Group's and the Fund's functional currency.

Foreign currency transactions during the year are translated into Hong Kong dollars using the spot exchange rates at the transaction dates. Monetary assets and liabilities denominated in foreign currencies are translated into Hong Kong dollars using the closing exchange rate at the balance sheet date.

Non-monetary assets and liabilities that are measured in terms of historical cost in a foreign currency are translated into Hong Kong dollars using the spot exchange rates at the transaction dates. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into Hong Kong dollars using the closing exchange rates at the dates when the fair value is determined.

All foreign currency translation differences are presented in aggregate as "net exchange gain/(loss)" in the income and expenditure account. Although it is not practicable to disclose separately the net exchange gain/(loss) on financial assets and financial liabilities designated at fair value or on trading financial instruments, the majority of the exchange gains/(losses) relate to these two categories of financial instruments.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The results of foreign operations are translated into Hong Kong dollars at the exchange rates approximating the foreign exchange rates ruling at the dates of the transactions. Balance sheet items are translated into Hong Kong dollars at the closing foreign exchange rates at the end of the reporting period. The resulting exchange differences are recognised in other comprehensive income and accumulated separately in equity in the translation reserve.

On disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation is reclassified from equity to the income and expenditure account when the profit or loss on disposal is recognised.

## 2.18 Related parties

For the purposes of these financial statements, a person or an entity is considered to be related to the Group if:

- (a) the person, or a close member of that person's family:
  - (i) has control or joint control over the Group;
  - (ii) has significant influence over the Group; or
  - (iii) is a member of the key management personnel of the Group.
- (b) any of the following conditions applies to the entity:
  - (i) the entity and the Group are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others);
  - (ii) the entity is an associate or joint venture of the Group (or an associate or joint venture of a member of a group of which the Group is a member);
  - (iii) the entity and the Group are joint ventures of the same third party;
  - (iv) the entity is a joint venture of another entity and the Group is an associate of that entity;
  - (v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;
  - (vi) the entity is controlled or jointly controlled by a person identified in (a);
  - (vii) a person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); or
  - (viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group.

Close members of the family of a person are those family members who may be expected to influence, or be influenced by, that person in their dealings with the entity.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 2.19 Operating segments

Operating segments are reported in a manner consistent with the internal management reports provided to the chief operating decision maker. The Group comprises the following operating segments:

- management of funds under the Currency Board Operations, including the Backing Portfolio;
- management of funds representing the general reserve assets of the Fund, including the Investment Portfolio, the Long-Term Growth Portfolio and the Strategic Portfolio; and
- maintaining the stability and integrity of monetary and financial systems of Hong Kong, which includes banking supervision and monetary management, and the activities of Hong Kong FMI Services Limited, The Hong Kong Mortgage Corporation Limited and Hong Kong Note Printing Limited.

Details of the operating segments of the Group are set out in note 31.

## 3 CHANGES IN ACCOUNTING POLICIES

The HKICPA has issued certain new and revised HKFRSs that are effective for the current accounting period. These new standards and amendments do not have a material impact on the Group.

The Group has not applied any new standard or interpretation that is not yet effective for the current accounting period (note 39).

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 4 INCOME AND EXPENDITURE

### (a) Investment income

	Group		Fund	
	2015	2014	2015	2014
Interest income:				
– from derivative financial instruments	460	435	460	435
– from financial assets designated at fair value	15,640	14,005	15,626	13,906
– from other financial assets	1,901	1,830	789	639
	<b>18,001</b>	16,270	<b>16,875</b>	14,980
Dividend income:				
– from financial assets designated at fair value	13,490	12,933	12,906	12,618
– from other financial assets	785	565	10	11
– from subsidiaries	–	–	487	2,621
	<b>14,275</b>	13,498	<b>13,403</b>	15,250
Income from investment properties:				
– rental income	982	1,051	–	–
– change in fair value on revaluation	1,703	1,272	–	–
	<b>2,685</b>	2,323	–	–
Net realised and unrealised gains/(losses):				
– on derivative financial instruments	(395)	(9,284)	(191)	(7,631)
– on financial assets and financial liabilities designated at fair value	(10,288)	70,381	(9,640)	69,221
– on disposal of available-for-sale securities	10,554	6,984	–	–
– on gold	(71)	(1)	(71)	(1)
	<b>(200)</b>	68,080	<b>(9,902)</b>	61,589
Net exchange loss	<b>(43,870)</b>	(51,649)	<b>(44,937)</b>	(52,759)
<b>TOTAL</b>	<b>(9,109)</b>	48,522	<b>(24,561)</b>	39,060

Net realised and unrealised gains/(losses) included a loss of HK\$332 million (2014: HK\$1,056 million) on hedging instruments designated as fair value hedge and a gain of HK\$328 million (2014: HK\$1,060 million) on hedged items.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### (b) Interest expense on placements by Fiscal Reserves, HKSAR Government funds and statutory bodies

	Group and Fund	
	2015	2014
Interest on placements by Fiscal Reserves:		
– at a fixed rate determined annually <sup>1</sup>	<b>46,667</b>	27,487
Interest on placements by HKSAR Government funds and statutory bodies:		
– at a fixed rate determined annually <sup>1</sup>	<b>14,722</b>	8,658
– at market-based rates	<b>-</b>	2
<b>TOTAL</b>	<b>61,389</b>	36,147

<sup>1</sup> This rate was fixed at 5.5% per annum for 2015 (2014: 3.6%) – notes 23, 24 and 28.

### (c) Other interest expense

	Group		Fund	
	2015	2014	2015	2014
Interest on Exchange Fund Bills and Notes issued	<b>698</b>	1,389	<b>698</b>	1,389
Interest expense on derivative financial instruments	<b>296</b>	224	<b>96</b>	22
Interest expense on other debt securities issued designated at fair value and trading liabilities	<b>2</b>	5	<b>1</b>	4
Interest expense on other financial liabilities	<b>492</b>	492	<b>20</b>	3
<b>TOTAL</b>	<b>1,488</b>	2,110	<b>815</b>	1,418



## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### (d) Operating expenses

	Group		Fund	
	2015	2014	2015	2014
Staff costs				
Salaries and other staff costs	1,231	1,165	990	955
Retirement benefit costs	105	98	91	86
Premises and equipment expenses				
Depreciation	198	189	151	136
Rental expenses under operating leases	93	91	62	61
Other premises expenses	69	68	60	57
General operating costs				
Maintenance of office and computer equipment	89	83	78	73
Financial information and communication services	55	53	48	46
External relations	30	29	28	27
Public education and publicity	21	12	12	7
Service fees for financial infrastructure	85	92	85	92
Professional and other services	114	89	29	28
Training	8	10	6	8
Operating expenses relating to investment properties	92	95	–	–
Others	36	37	25	29
Investment management and custodian fees				
Management and custodian fees	1,417	1,266	1,170	1,079
Transaction costs	180	145	179	142
Withholding tax	508	459	508	459
Others	62	39	59	39
<b>TOTAL</b>	<b>4,393</b>	<b>4,020</b>	<b>3,581</b>	<b>3,324</b>

The aggregate emoluments of senior staff (Executive Directors and above) of the Group were as follows:

	Group	
	2015	2014
Fixed pay	73.9	67.3
Variable pay	18.8	19.5
Other benefits	10.3	9.3
	<b>103.0</b>	<b>96.1</b>

Other benefits shown above included provident funds, medical and life insurance, gratuity and annual leave accrued during the year. There were no other allowances or benefits-in-kind.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The numbers of senior staff (Executive Directors and above) of the Group whose emoluments including other benefits fell within the following bands were shown in the below table.

HK\$	Group	
	2015	2014
2,000,001 to 2,500,000	1	–
4,000,001 to 4,500,000	2	4
4,500,001 to 5,000,000	4	3
5,000,001 to 5,500,000	1	2
5,500,001 to 6,000,000	3	1
6,000,001 to 6,500,000	1	1
6,500,001 to 7,000,000	1	1
8,000,001 to 8,500,000	–	2
8,500,001 to 9,000,000	1	1
9,000,001 to 9,500,000	2	–
9,500,001 to 10,000,000	–	1
10,000,001 to 10,500,000	1	–
	<b>17</b>	<b>16</b>

### (e) Note and coin expenses

These represent reimbursements to the note-issuing banks in respect of note-issuing expenses and expenses incurred directly by the Fund in issuing government-issued currency notes and coins.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 5 INCOME TAX

### (a) Income tax charged in the income and expenditure account

	Group		Fund	
	2015	2014	2015	2014
<b>Current tax</b>				
Hong Kong profits tax				
– Current year	<b>66</b>	71	–	–
– Over-provision in prior years	<b>(13)</b>	(10)	–	–
Taxation outside Hong Kong				
– Current year	<b>9</b>	9	–	–
<b>Deferred tax</b>				
Charge for current year	<b>61</b>	13	–	–
	<b>123</b>	83	–	–

No provision for Hong Kong profits tax has been made for the Fund as it is an integral part of the government. The provision for Hong Kong profits tax relates to the tax liabilities of the Fund's subsidiaries. For 2015, it is calculated at 16.5% (2014: 16.5%) of the estimated assessable profits for the year. Tax for overseas subsidiaries is charged at the appropriate current rates of taxation ruling in the relevant countries.

Reconciliation between tax expense and accounting profit at applicable tax rates:

	Group		Fund	
	2015	2014	2015	2014
(Deficit)/Surplus before taxation	<b>(74,132)</b>	8,216	<b>(90,597)</b>	(2,056)
Surplus subject to tax in Hong Kong and elsewhere	<b>5,666</b>	4,063	–	–
Tax calculated at domestic tax rates in the respective countries	<b>754</b>	487	–	–
Tax effect of:				
non-deductible expenses	<b>53</b>	49	–	–
non-taxable income	<b>(713)</b>	(463)	–	–
tax losses not recognised	<b>3</b>	2	–	–
over-provision in prior years	<b>(13)</b>	(10)	–	–
others	<b>39</b>	18	–	–
Actual tax expense	<b>123</b>	83	–	–

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### (b) Tax payable

	Note	Group		Fund	
		2015	2014	2015	2014
Tax payable	28	<b>139</b>	151	-	-

### (c) Deferred tax

	Note	Group		Fund	
		2015	2014	2015	2014
Net deferred tax assets	15	<b>(32)</b>	(59)	-	-
Net deferred tax liabilities	28	<b>115</b>	121	-	-
		<b>83</b>	62	-	-

The major components of deferred tax (assets)/liabilities and the movements during the year are as follows:

	Group				
	Adjustments on bank loans and derivative financial instruments	Fair value change on financial instruments	Accelerated tax depreciation	Others	Net deferred tax (assets)/liabilities
At 1 January 2014	(57)	58	26	-	27
Charged/(credited) to the income and expenditure account	1	-	(5)	17	13
Charged to other comprehensive income	-	20	-	-	20
Exchange differences	4	-	-	(2)	2
At 31 December 2014	(52)	78	21	15	62
At 1 January 2015	<b>(52)</b>	<b>78</b>	<b>21</b>	<b>15</b>	<b>62</b>
Charged to the income and expenditure account	<b>18</b>	-	<b>6</b>	<b>37</b>	<b>61</b>
Charged/(credited) to other comprehensive income	-	<b>(40)</b>	-	<b>1</b>	<b>(39)</b>
Exchange differences	<b>2</b>	-	-	<b>(3)</b>	<b>(1)</b>
At 31 December 2015	<b>(32)</b>	<b>38</b>	<b>27</b>	<b>50</b>	<b>83</b>

There was no significant unprovided deferred tax as at 31 December 2015 and 2014.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 6 CATEGORIES OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES

	Note	Group – 2015						
		Total	Trading financial instruments and hedging instruments	Financial assets and financial liabilities designated at fair value	Loans and receivables	Held-to-maturity securities	Available-for-sale securities	Other financial liabilities
Cash and money at call	7	188,547	-	-	188,547	-	-	-
Placements with banks and other financial institutions	8	123,880	-	-	123,880	-	-	-
Financial assets designated at fair value	9	3,015,402	-	3,015,402	-	-	-	-
Available-for-sale securities	10	104,475	-	-	-	-	104,475	-
Derivative financial instruments	11(a)	5,831	5,831	-	-	-	-	-
Held-to-maturity securities	12	10,274	-	-	-	10,274	-	-
Loan portfolio	13	11,502	-	-	11,502	-	-	-
Others		22,689	-	-	22,689	-	-	-
<b>FINANCIAL ASSETS</b>		<b>3,482,600</b>	<b>5,831</b>	<b>3,015,402</b>	<b>346,618</b>	<b>10,274</b>	<b>104,475</b>	<b>-</b>
Certificates of Indebtedness	20	357,863	-	-	-	-	-	357,863
Government-issued currency notes and coins in circulation	20	11,335	-	-	-	-	-	11,335
Balance of the banking system	21	391,343	-	-	-	-	-	391,343
Placements by banks and other financial institutions	22	66,907	-	-	-	-	-	66,907
Placements by Fiscal Reserves	23	833,548	-	-	-	-	-	833,548
Placements by HKSAR Government funds and statutory bodies	24	280,846	-	-	-	-	-	280,846
Exchange Fund Bills and Notes issued	25	827,792	-	827,792	-	-	-	-
Derivative financial instruments	11(a)	3,256	3,256	-	-	-	-	-
Bank loans	26	11,318	-	-	-	-	-	11,318
Other debt securities issued	27	33,463	-	343	-	-	-	33,120
Others		113,537	-	-	-	-	-	113,537
<b>FINANCIAL LIABILITIES</b>		<b>2,931,208</b>	<b>3,256</b>	<b>828,135</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,099,817</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Group – 2014							
	Note	Total	Trading financial instruments and hedging instruments	Financial assets and liabilities designated at fair value	Loans and receivables	Held-to-maturity securities	Available-for-sale securities	Other financial liabilities
Cash and money at call	7	196,701	-	-	196,701	-	-	-
Placements with banks and other financial institutions	8	138,239	-	-	138,239	-	-	-
Financial assets designated at fair value	9	2,731,215	-	2,731,215	-	-	-	-
Available-for-sale securities	10	87,656	-	-	-	-	87,656	-
Derivative financial instruments	11(a)	7,554	7,554	-	-	-	-	-
Held-to-maturity securities	12	9,169	-	-	-	9,169	-	-
Loan portfolio	13	15,572	-	-	15,572	-	-	-
Others		18,564	-	-	18,564	-	-	-
<b>FINANCIAL ASSETS</b>		<b>3,204,670</b>	<b>7,554</b>	<b>2,731,215</b>	<b>369,076</b>	<b>9,169</b>	<b>87,656</b>	<b>-</b>
Certificates of Indebtedness	20	340,184	-	-	-	-	-	340,184
Government-issued currency notes and coins in circulation	20	11,028	-	-	-	-	-	11,028
Balance of the banking system	21	239,183	-	-	-	-	-	239,183
Placements by banks and other financial institutions	22	64,001	-	-	-	-	-	64,001
Placements by Fiscal Reserves	23	788,681	-	-	-	-	-	788,681
Placements by HKSAR Government funds and statutory bodies	24	261,139	-	-	-	-	-	261,139
Exchange Fund Bills and Notes issued	25	751,946	-	751,946	-	-	-	-
Derivative financial instruments	11(a)	5,676	5,676	-	-	-	-	-
Bank loans	26	8,778	-	-	-	-	-	8,778
Other debt securities issued	27	33,270	-	336	-	-	-	32,934
Others		59,573	-	-	-	-	-	59,573
<b>FINANCIAL LIABILITIES</b>		<b>2,563,459</b>	<b>5,676</b>	<b>752,282</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,805,501</b>

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund – 2015							Other financial liabilities
	Note	Total	Trading financial instruments	Financial assets and liabilities designated at fair value	Loans and receivables	Held-to-maturity securities	Available-for-sale securities	
Cash and money at call	7	187,835	-	-	187,835	-	-	-
Placements with banks and other financial institutions	8	102,681	-	-	102,681	-	-	-
Financial assets designated at fair value	9	3,002,620	-	3,002,620	-	-	-	-
Available-for-sale securities	10	493	-	-	-	-	493	-
Derivative financial instruments	11(a)	5,357	5,357	-	-	-	-	-
Others		21,966	-	-	21,966	-	-	-
<b>FINANCIAL ASSETS</b>		<b>3,320,952</b>	<b>5,357</b>	<b>3,002,620</b>	<b>312,482</b>	<b>-</b>	<b>493</b>	<b>-</b>
Certificates of Indebtedness	20	357,863	-	-	-	-	-	357,863
Government-issued currency notes and coins in circulation	20	11,335	-	-	-	-	-	11,335
Balance of the banking system	21	391,343	-	-	-	-	-	391,343
Placements by banks and other financial institutions	22	66,907	-	-	-	-	-	66,907
Placements by Fiscal Reserves	23	833,548	-	-	-	-	-	833,548
Placements by HKSAR Government funds and statutory bodies	24	280,846	-	-	-	-	-	280,846
Exchange Fund Bills and Notes issued	25	827,792	-	827,792	-	-	-	-
Derivative financial instruments	11(a)	1,102	1,102	-	-	-	-	-
Others		107,182	-	-	-	-	-	107,182
<b>FINANCIAL LIABILITIES</b>		<b>2,877,918</b>	<b>1,102</b>	<b>827,792</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,049,024</b>

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund - 2014							
	Note	Total	Trading financial instruments	Financial assets and liabilities designated at fair value	Loans and receivables	Held-to-maturity securities	Available-for-sale securities	Other financial liabilities
Cash and money at call	7	195,528	-	-	195,528	-	-	-
Placements with banks and other financial institutions	8	120,080	-	-	120,080	-	-	-
Financial assets designated at fair value	9	2,719,373	-	2,719,373	-	-	-	-
Available-for-sale securities	10	493	-	-	-	-	493	-
Derivative financial instruments	11(a)	6,870	6,870	-	-	-	-	-
Others		17,994	-	-	17,994	-	-	-
<b>FINANCIAL ASSETS</b>		<b>3,060,338</b>	<b>6,870</b>	<b>2,719,373</b>	<b>333,602</b>	<b>-</b>	<b>493</b>	<b>-</b>
Certificates of Indebtedness	20	340,184	-	-	-	-	-	340,184
Government-issued currency notes and coins in circulation	20	11,028	-	-	-	-	-	11,028
Balance of the banking system	21	239,183	-	-	-	-	-	239,183
Placements by banks and other financial institutions	22	64,001	-	-	-	-	-	64,001
Placements by Fiscal Reserves	23	788,681	-	-	-	-	-	788,681
Placements by HKSAR Government funds and statutory bodies	24	261,139	-	-	-	-	-	261,139
Exchange Fund Bills and Notes issued	25	752,446	-	752,446	-	-	-	-
Derivative financial instruments	11(a)	3,585	3,585	-	-	-	-	-
Others		53,199	-	-	-	-	-	53,199
<b>FINANCIAL LIABILITIES</b>		<b>2,513,446</b>	<b>3,585</b>	<b>752,446</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,757,415</b>



## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 7 CASH AND MONEY AT CALL

	Group		Fund	
	2015	2014	2015	2014
At amortised cost				
Balance with central banks	<b>67,376</b>	101,365	<b>67,376</b>	101,365
Balance with banks	<b>121,171</b>	95,336	<b>120,459</b>	94,163
<b>TOTAL</b>	<b>188,547</b>	196,701	<b>187,835</b>	195,528

### 8 PLACEMENTS WITH BANKS AND OTHER FINANCIAL INSTITUTIONS

	Group		Fund	
	2015	2014	2015	2014
At amortised cost				
Placements in respect of reverse repurchase agreements:				
– with central banks	<b>38,729</b>	38,799	<b>38,729</b>	38,799
– with banks and other financial institutions	<b>2,368</b>	4,058	<b>2,368</b>	4,058
Other placements:				
– with central banks	–	2,326	–	2,326
– with banks	<b>82,783</b>	93,056	<b>61,584</b>	74,897
<b>TOTAL</b>	<b>123,880</b>	138,239	<b>102,681</b>	120,080

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 9 FINANCIAL ASSETS DESIGNATED AT FAIR VALUE

	Group		Fund	
	2015	2014	2015	2014
At fair value				
<b>Debt securities</b>				
<b>Treasury bills and commercial paper</b>				
Listed outside Hong Kong	20,460	17,800	20,460	17,800
Unlisted	937,545	701,366	937,545	701,366
<b>Certificates of deposit</b>				
Unlisted	56,357	59,648	56,357	59,648
<b>Other debt securities</b>				
Listed in Hong Kong	222	–	222	–
Listed outside Hong Kong	1,057,009	1,176,642	1,056,995	1,176,586
Unlisted	401,700	201,428	390,420	190,860
<b>Total debt securities</b>	<b>2,473,293</b>	<b>2,156,884</b>	<b>2,461,999</b>	<b>2,146,260</b>
<b>Equity securities</b>				
Listed in Hong Kong	148,224	156,781	148,224	156,781
Listed outside Hong Kong	308,412	335,606	308,412	335,606
Unlisted	85,473	81,944	83,985	80,726
<b>Total equity securities</b>	<b>542,109</b>	<b>574,331</b>	<b>540,621</b>	<b>573,113</b>
<b>TOTAL</b>	<b>3,015,402</b>	<b>2,731,215</b>	<b>3,002,620</b>	<b>2,719,373</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 10 AVAILABLE-FOR-SALE SECURITIES

	Group		Fund	
	2015	2014	2015	2014
<b>Debt securities, at fair value</b>				
Listed in Hong Kong	1,650	185	-	-
Listed outside Hong Kong	808	118	-	-
Unlisted	3,267	3,947	-	-
	<b>5,725</b>	4,250	-	-
<b>Equity securities</b>				
Listed in Hong Kong, at fair value	913	984	-	-
Unlisted, at cost	493	493	493	493
	<b>1,406</b>	1,477	493	493
<b>Investment funds, at fair value</b>				
Unlisted	97,344	81,929	-	-
<b>TOTAL</b>	<b>104,475</b>	87,656	<b>493</b>	493

The Group's investment in unlisted equity securities as at 31 December 2015 represents a holding of 4,285 shares (2014: 4,285 shares) in the Bank for International Settlements. The nominal value of each share is 5,000 Special Drawing Rights and is 25% paid up (note 34(a)). Investment in unlisted investment funds mainly represents the Group's holding of private equity funds under the Long-Term Growth Portfolio.

## 11 DERIVATIVE FINANCIAL INSTRUMENTS

Derivative financial instruments refer to financial contracts whose value depends on the value of one or more underlying assets or indices with settlement at a future date.

The Group uses derivative financial instruments to manage its exposures to market risk and to facilitate the implementation of investment strategies. The principal derivative financial instruments used are interest rate and currency swap contracts, forward foreign exchange contracts, currency and bond options contracts, and equity contracts, which are primarily over-the-counter derivatives, as well as exchange-traded futures contracts.

Market risk arising from derivative financial instruments is included as part of the overall market risk exposure. The credit risk arising from these transactions is marked against the overall credit exposure to individual counterparties. The financial risk management approaches are outlined in note 36.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## (a) Fair values of derivative financial instruments

An analysis of the fair values of derivative financial instruments held by product type is set out below:

	Group				Fund			
	2015		2014		2015		2014	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
<b>Derivatives categorised as trading financial instruments</b>								
Interest rate derivatives								
Interest rate swap contracts	1,242	365	905	700	1,223	33	880	185
Interest rate futures contracts	-	1	1	2	-	1	1	2
Equity derivatives								
Equity contracts	-	-	127	-	-	-	-	-
Equity index futures contracts	485	186	948	283	485	186	948	283
Equity index option contracts	-	-	-	109	-	-	-	109
Currency derivatives								
Forward foreign exchange contracts	3,194	794	4,969	2,037	3,194	794	4,964	2,037
Currency option contracts	406	27	-	-	406	27	-	-
Bond derivatives								
Bond futures contracts	11	49	12	20	11	49	12	20
Bond option contracts	-	-	65	949	-	-	65	949
Commodity derivatives								
Commodity futures contracts	38	12	-	-	38	12	-	-
	<b>5,376</b>	<b>1,434</b>	<b>7,027</b>	<b>4,100</b>	<b>5,357</b>	<b>1,102</b>	<b>6,870</b>	<b>3,585</b>
<b>Derivatives designated as hedging instruments in fair value hedges</b>								
Interest rate derivatives								
Interest rate swap contracts	455	2	511	10	-	-	-	-
Currency derivatives								
Currency swap contracts	-	1,820	16	1,566	-	-	-	-
	<b>455</b>	<b>1,822</b>	<b>527</b>	<b>1,576</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>TOTAL</b>	<b>5,831</b>	<b>3,256</b>	<b>7,554</b>	<b>5,676</b>	<b>5,357</b>	<b>1,102</b>	<b>6,870</b>	<b>3,585</b>

The fair value hedges consist of currency and interest rate swap contracts that are used to protect against changes in the fair value of certain fixed-rate securities due to movements in market interest rates.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## (b) Notional amounts of derivative financial instruments

An analysis of the notional amounts of derivative financial instruments held at the balance sheet date based on the remaining periods to settlement is set out below. The notional amounts of these instruments indicate the volume of outstanding transactions and do not represent the amounts at risk.

	Group									
	Notional amounts with remaining life of									
	Total	2015				Total	2014			
3 months or less		1 year or less but over 3 months	5 years or less but over 1 year	Over 5 years	3 months or less		1 year or less but over 3 months	5 years or less but over 1 year	Over 5 years	
<b>Derivatives categorised as trading financial instruments</b>										
Interest rate derivatives										
Interest rate swap contracts	42,476	-	273	27,828	14,375	74,780	20,623	26,037	12,398	15,722
Interest rate futures contracts	9,274	1,579	4,046	3,649	-	17,738	3,967	4,788	8,983	-
Equity derivatives										
Equity contracts	-	-	-	-	-	938	-	938	-	-
Equity index futures contracts	72,710	72,710	-	-	-	101,902	101,902	-	-	-
Equity index option contracts	-	-	-	-	-	3,877	3,877	-	-	-
Currency derivatives										
Forward foreign exchange contracts	252,777	173,414	79,363	-	-	220,576	155,146	65,430	-	-
Currency option contracts	48,293	48,293	-	-	-	-	-	-	-	-
Bond derivatives										
Bond futures contracts	34,939	34,939	-	-	-	20,641	20,641	-	-	-
Bond option contracts	-	-	-	-	-	77,549	-	77,549	-	-
Commodity derivatives										
Commodity futures contracts	4,746	2,980	1,766	-	-	-	-	-	-	-
	465,215	333,915	85,448	31,477	14,375	518,001	306,156	174,742	21,381	15,722
<b>Derivatives designated as hedging instruments in fair value hedges</b>										
Interest rate derivatives										
Interest rate swap contracts	14,228	445	5,428	7,002	1,353	10,328	200	1,295	6,966	1,867
Currency derivatives										
Currency swap contracts	14,568	7,041	1,828	5,002	697	18,990	4,829	6,905	6,478	778
	28,796	7,486	7,256	12,004	2,050	29,318	5,029	8,200	13,444	2,645
<b>TOTAL</b>	<b>494,011</b>	<b>341,401</b>	<b>92,704</b>	<b>43,481</b>	<b>16,425</b>	<b>547,319</b>	<b>311,185</b>	<b>182,942</b>	<b>34,825</b>	<b>18,367</b>

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund									
	Notional amounts with remaining life of									
	Total	2015				Total	2014			
3 months or less		1 year or less but over 3 months	5 years or less but over 1 year	Over 5 years	3 months or less		1 year or less but over 3 months	5 years or less but over 1 year	Over 5 years	
<b>Derivatives categorised as trading financial instruments</b>										
Interest rate derivatives										
Interest rate swap contracts	33,846	-	-	19,593	14,253	64,692	19,775	25,987	3,330	15,600
Interest rate futures contracts	9,274	1,579	4,046	3,649	-	17,738	3,967	4,788	8,983	-
Equity derivatives										
Equity index futures contracts	72,710	72,710	-	-	-	101,902	101,902	-	-	-
Equity index option contracts	-	-	-	-	-	3,877	3,877	-	-	-
Currency derivatives										
Forward foreign exchange contracts	252,777	173,414	79,363	-	-	219,876	154,446	65,430	-	-
Currency option contracts	48,293	48,293	-	-	-	-	-	-	-	-
Bond derivatives										
Bond futures contracts	34,939	34,939	-	-	-	20,641	20,641	-	-	-
Bond option contracts	-	-	-	-	-	77,549	-	77,549	-	-
Commodity derivatives										
Commodity futures contracts	4,746	2,980	1,766	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>456,585</b>	<b>333,915</b>	<b>85,175</b>	<b>23,242</b>	<b>14,253</b>	<b>506,275</b>	<b>304,608</b>	<b>173,754</b>	<b>12,313</b>	<b>15,600</b>

## 12 HELD-TO-MATURITY SECURITIES

	Group		Fund	
	2015	2014	2015	2014
At amortised cost				
<b>Debt securities</b>				
Listed in Hong Kong	4,431	2,973	-	-
Listed outside Hong Kong	1,685	2,190	-	-
Unlisted	4,158	4,006	-	-
<b>TOTAL</b>	<b>10,274</b>	<b>9,169</b>	<b>-</b>	<b>-</b>

Fair value information of the above held-to-maturity securities is provided in note 37.2.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 13 LOAN PORTFOLIO

	Group		Fund	
	2015	2014	2015	2014
Mortgage loans, at amortised cost	10,935	14,874	-	-
Non-mortgage loans, at amortised cost	568	699	-	-
Allowance for loan impairment	(1)	(1)	-	-
<b>TOTAL</b>	<b>11,502</b>	<b>15,572</b>	<b>-</b>	<b>-</b>

### 14 GOLD

	Group and Fund	
	2015	2014
Gold, at fair value 66,798 ounces (2014: 66,798 ounces)	550	621

The fair value of gold is based on quoted price in an active market. It is classified under Level 1 of the fair value hierarchy.

### 15 OTHER ASSETS

	Group		Fund	
	2015	2014	2015	2014
Interest and dividends receivable	7,653	7,133	7,343	6,818
Unsettled sales and redemption of securities	7,016	7,329	7,016	7,329
Prepayments, receivables and other assets	7,633	3,652	7,122	3,294
Staff housing loans	158	120	158	120
Loan to the International Monetary Fund	355	459	355	459
Deferred tax assets	32	59	-	-
<b>TOTAL</b>	<b>22,847</b>	<b>18,752</b>	<b>21,994</b>	<b>18,020</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 16 INTERESTS IN SUBSIDIARIES

	Fund	
	2015	2014
Unlisted shares, at cost	2,312	2,312
Loans to subsidiaries	96,019	82,610
<b>TOTAL</b>	<b>98,331</b>	84,922

The following is a list of the principal subsidiaries held directly by the Fund as at 31 December 2015:

Name of company	Place of incorporation and operation	Principal activities	Issued equity capital	Fund's interest in equity capital
The Hong Kong Mortgage Corporation Limited	Hong Kong	Investment in mortgages and loans, mortgage securitisation and guarantee	HK\$2,000,000,000	100%
Hong Kong Note Printing Limited	Hong Kong	Banknote printing	HK\$255,000,000	55%
Hong Kong FMI Services Limited	Hong Kong	Performance of financial market infrastructure related operations	HK\$167,000,000	100%
Debt Capital Solutions Company Limited	Hong Kong	Investment holding	HK\$1	100%
Drawbridge Investment Limited	Hong Kong	Investment holding	HK\$1	100%
Eight Finance Investment Company Limited	Hong Kong	Investment holding	HK\$1	100%
Stratosphere Finance Company Limited	Hong Kong	Investment holding	HK\$1	100%
Real Avenue Investment Company Limited	Hong Kong	Investment properties holding	HK\$1	100%
Real Boulevard Investment Company Limited	Hong Kong	Investment properties holding	HK\$1	100%
Real Gate Investment Company Limited	Hong Kong	Investment properties holding	HK\$1	100%
Real Horizon Investment Company Limited	Hong Kong	Investment properties holding	HK\$1	100%
Real Plaza Investment Company Limited	Hong Kong	Investment properties holding	HK\$1	100%
Real Summit Investment Company Limited	Hong Kong	Investment properties holding	HK\$1	100%

Loans to subsidiaries which principally hold investments including properties are unsecured, interest-free and repayable on demand.

The financial statements of these subsidiaries have been audited by firms other than the Audit Commission. The aggregate net assets of these companies not audited by the Audit Commission amounted to 9.09% (2014: 6.36%) of the Group's net assets.



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 17 INTERESTS IN ASSOCIATES AND JOINT VENTURES

	Group		Fund	
	2015	2014	2015	2014
<b>Associates</b>				
Unlisted shares, at cost	-	-	-	-
Share of net assets	670	485	-	-
	670	485	-	-
<b>Joint ventures</b>				
Share of net assets	3,995	2,253	-	-
Due from joint ventures	16,523	13,710	-	-
	20,518	15,963	-	-
<b>TOTAL</b>	<b>21,188</b>	<b>16,448</b>	<b>-</b>	<b>-</b>

The Group holds investments in two associates. One of the associates is incorporated in Hong Kong which provides interbank clearing services. The other associate is incorporated outside Hong Kong which holds overseas investment properties. The Group holds equity interest in these associates ranging from 30% to 50%.

Aggregate information of the Group's associates that are not individually material is summarised below:

	Group	
	2015	2014
Share of (loss)/profit for the year	(18)	10
Share of total comprehensive (loss)/income	(18)	10
Aggregate carrying amount of interests in the associates	670	485

The Group's share of outstanding investment commitments to associates is shown below:

	Group	
	2015	2014
Commitments to contribute funds	3,962	860

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The Group holds investments in eleven joint ventures, which are all incorporated outside Hong Kong. The principal activities of these joint ventures are the holding of overseas investment properties. At the end of 2015, the Group holds equity interest in these joint ventures ranging from 48% to 51%. Although the Group's equity interest in some of these joint ventures exceeds 50%, they are categorised as joint ventures because important business decisions relating to these joint ventures are required to be made with the consent of all parties. At 31 December 2015, the aggregate interest in these joint ventures amounted to 0.58% (2014: 0.49%) of the Group's total assets.

Aggregate information of the Group's joint ventures that are not individually material is summarised below:

	Group	
	2015	2014
Share of profit for the year	<b>1,995</b>	1,720
Share of other comprehensive loss	<b>(253)</b>	(247)
Share of total comprehensive income	<b>1,742</b>	1,473
Aggregate carrying amount of interests in the joint ventures	<b>20,518</b>	15,963

The Group's share of outstanding investment commitments to joint ventures is shown below:

	Group	
	2015	2014
Commitments to contribute funds	<b>1,698</b>	487

## 18 INVESTMENT PROPERTIES

	Group		Fund	
	2015	2014	2015	2014
<b>At fair value</b>				
At 1 January	<b>17,493</b>	17,695	-	-
Additions	<b>5,694</b>	-	-	-
Change in fair value on revaluation	<b>1,703</b>	1,272	-	-
Exchange differences	<b>(1,269)</b>	(1,474)	-	-
At 31 December	<b>23,621</b>	17,493	-	-

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The carrying amount of the Group's investment properties is analysed as follows:

	Group		Fund	
	2015	2014	2015	2014
Held outside Hong Kong				
on freehold	9,291	9,077	-	-
on long-term lease (over 50 years)	14,330	8,416	-	-
<b>TOTAL</b>	<b>23,621</b>	17,493	-	-

The Group's investment properties are leased to third parties under operating leases. The gross rental income received and receivable by the Group and the related expenses in respect of these investment properties are summarised as follows:

	Group		Fund	
	2015	2014	2015	2014
Gross rental income	982	1,051	-	-
Direct expenses	(92)	(95)	-	-
Net rental income	890	956	-	-

The Group's total future minimum lease payments receivable under non-cancellable operating leases are as follows:

	Group		Fund	
	2015	2014	2015	2014
Within one year	1,156	917	-	-
After one year but not later than five years	4,394	3,576	-	-
After five years but not later than ten years	3,497	3,260	-	-
After ten years but not later than fifteen years	625	1,082	-	-
After fifteen years but not later than twenty years	8	-	-	-
<b>TOTAL</b>	<b>9,680</b>	8,835	-	-

At 31 December 2015, investment properties with a fair value of HK\$23,621 million (2014: HK\$17,493 million) were pledged to secure general banking facilities granted to the Group (note 26).

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 18.1 Fair value measurement of investment properties

The Group's investment properties are revalued by independent professional valuers on an open market value basis at the end of each financial year, except for the additions in 2015 (HK\$5,694 million) which were valued by management based on the valuation made by independent professional valuers in November 2015 prior to recognition. The valuers have valued the Group's investment properties based on income approach with reference to comparable market evidence. The market value which is considered as the fair value of each investment property reflects, among other things, rental income from current leases and assumptions about rental income from future leases in light of the current market conditions. The fair value also reflects, on a similar basis, any cash outflows that could be expected in respect of the property. For all properties, their current use equates to the highest and best use. There has been no change to the valuation technique during the year.

Under the income approach, fair value is estimated using assumptions regarding the benefits and liabilities of ownership over the asset's life including the terminal value. This method involves the projection of a series of cash flows on a real property interest. To this projected cash flow series, a market-derived discount rate is applied to establish the present value of the income stream associated with the asset. The significant unobservable inputs used in the income approach are the selection of discount rates which ranged from 4.75% to 5.00% (2014: 5.50% to 6.85%), net initial yields which ranged from 4.50% to 5.16% (2014: 4.89% to 4.99%) and terminal capitalisation rates which ranged from 3.75% to 4.20% (2014: 4.0% to 4.8%). Significant increases or decreases in any of those inputs in isolation would result in significantly lower or higher fair value measurements, respectively.

All of the Group's investment properties are classified under Level 3 of the fair value hierarchy. There were no transfers into or out of Level 3 during the year.

An analysis of the movement between opening and closing balances of Level 3 investment properties, measured at fair value using a valuation technique with significant unobservable inputs, is shown below:

	Group		Fund	
	2015	2014	2015	2014
At 1 January	<b>17,493</b>	17,695	-	-
Additions	<b>5,694</b>	-	-	-
Change in fair value on revaluation recognised as "income from investment properties" in the income and expenditure account	<b>1,703</b>	1,272	-	-
Exchange differences recognised in other comprehensive income	<b>(1,269)</b>	(1,474)	-	-
At 31 December	<b>23,621</b>	17,493	-	-
Net gains recognised in the income and expenditure account held at the balance sheet date	<b>1,703</b>	1,272	-	-

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 19 PROPERTY, PLANT AND EQUIPMENT

(a)

	Group			
	Premises	Plant and equipment	Computer software licences and system development costs	Total
<b>Cost</b>				
At 1 January 2014	3,852	990	331	5,173
Additions	–	114	24	138
Disposals	–	(36)	–	(36)
At 31 December 2014	3,852	1,068	355	5,275
At 1 January 2015	<b>3,852</b>	<b>1,068</b>	<b>355</b>	<b>5,275</b>
Additions	–	<b>85</b>	<b>29</b>	<b>114</b>
Disposals	–	<b>(23)</b>	–	<b>(23)</b>
At 31 December 2015	<b>3,852</b>	<b>1,130</b>	<b>384</b>	<b>5,366</b>
<b>Accumulated depreciation</b>				
At 1 January 2014	897	680	264	1,841
Charge for the year	87	88	14	189
Written back on disposal	–	(36)	–	(36)
At 31 December 2014	984	732	278	1,994
At 1 January 2015	<b>984</b>	<b>732</b>	<b>278</b>	<b>1,994</b>
Charge for the year	<b>89</b>	<b>91</b>	<b>18</b>	<b>198</b>
Written back on disposal	–	<b>(18)</b>	–	<b>(18)</b>
At 31 December 2015	<b>1,073</b>	<b>805</b>	<b>296</b>	<b>2,174</b>
<b>Net book value</b>				
<b>At 31 December 2015</b>	<b>2,779</b>	<b>325</b>	<b>88</b>	<b>3,192</b>
At 31 December 2014	2,868	336	77	3,281

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund			Total
	Premises	Plant and equipment	Computer software licences and system development costs	
<b>Cost</b>				
At 1 January 2014	3,843	368	331	4,542
Additions	–	86	24	110
Disposals	–	(6)	–	(6)
At 31 December 2014	3,843	448	355	4,646
At 1 January 2015	<b>3,843</b>	<b>448</b>	<b>355</b>	<b>4,646</b>
Additions	–	<b>43</b>	<b>29</b>	<b>72</b>
Disposals	–	<b>(4)</b>	–	<b>(4)</b>
At 31 December 2015	<b>3,843</b>	<b>487</b>	<b>384</b>	<b>4,714</b>
<b>Accumulated depreciation</b>				
At 1 January 2014	892	272	264	1,428
Charge for the year	87	35	14	136
Written back on disposal	–	(6)	–	(6)
At 31 December 2014	979	301	278	1,558
At 1 January 2015	<b>979</b>	<b>301</b>	<b>278</b>	<b>1,558</b>
Charge for the year	<b>88</b>	<b>45</b>	<b>18</b>	<b>151</b>
Written back on disposal	–	<b>(4)</b>	–	<b>(4)</b>
At 31 December 2015	<b>1,067</b>	<b>342</b>	<b>296</b>	<b>1,705</b>
<b>Net book value</b>				
<b>At 31 December 2015</b>	<b>2,776</b>	<b>145</b>	<b>88</b>	<b>3,009</b>
At 31 December 2014	2,864	147	77	3,088

**(b) The net book value of premises comprises:**

	Group		Fund	
	2015	2014	2015	2014
In Hong Kong				
Leasehold land and the building situated thereon (leasehold between 10 and 50 years)	<b>2,757</b>	2,845	<b>2,754</b>	2,841
Outside Hong Kong				
Freehold land and the building situated thereon	<b>22</b>	23	<b>22</b>	23
<b>TOTAL</b>	<b>2,779</b>	2,868	<b>2,776</b>	2,864

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 20 CERTIFICATES OF INDEBTEDNESS, GOVERNMENT-ISSUED CURRENCY NOTES AND COINS IN CIRCULATION

	Group and Fund			
	Certificates of Indebtedness		Government-issued currency notes and coins in circulation	
	2015	2014	2015	2014
Carrying amount	<b>357,863</b>	340,184	<b>11,335</b>	11,028
<b>Reconciliation with face value:</b>				
Hong Kong dollar face value	<b>360,165</b>	342,165	<b>11,408</b>	11,092
Linked exchange rate for calculating the US dollars required for redemption	<b>US\$1=HK\$7.80</b>	US\$1=HK\$7.80	<b>US\$1=HK\$7.80</b>	US\$1=HK\$7.80
US dollars required for redemption	<b>US\$46,175 million</b>	US\$43,867 million	<b>US\$1,463 million</b>	US\$1,422 million
Market exchange rate for translation into Hong Kong dollars	<b>US\$1=HK\$7.75015</b>	US\$1=HK\$7.75485	<b>US\$1=HK\$7.75015</b>	US\$1=HK\$7.75485
Carrying amount	<b>357,863</b>	340,184	<b>11,335</b>	11,028

## 21 BALANCE OF THE BANKING SYSTEM

Under the interbank payment system based on Real Time Gross Settlement principles, all licensed banks maintain a Hong Kong dollar clearing account with the Hong Kong Monetary Authority (HKMA) for the account of the Fund. The aggregate amount in these clearing accounts, which must not have a negative balance, represents the total level of liquidity in the interbank market.

Under the weak-side Convertibility Undertaking, the HKMA undertakes to convert Hong Kong dollars in these clearing accounts into US dollars at the fixed exchange rate of US\$1=HK\$7.85. Likewise, under the strong-side Convertibility Undertaking, licensed banks can convert US dollars into Hong Kong dollars in these accounts, as the HKMA undertakes to buy US dollars at the fixed exchange rate of US\$1=HK\$7.75. Within the Convertibility Zone bounded by the two Convertibility Undertakings, the HKMA may choose to conduct market operations in a manner consistent with Currency Board principles. Such operations can result in matching changes in the balances of these accounts.

The balance of the banking system is repayable on demand, non-interest-bearing and is shown at its Hong Kong dollar amount.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 22 PLACEMENTS BY BANKS AND OTHER FINANCIAL INSTITUTIONS

	Group and Fund	
	2015	2014
At amortised cost		
Placements by central banks	60,664	63,171
Placements by banks	6,243	830
<b>TOTAL</b>	<b>66,907</b>	<b>64,001</b>

### 23 PLACEMENTS BY FISCAL RESERVES

	Group and Fund	
	2015	2014
<b>Placements with interest payable at a fixed rate determined annually</b>		
General Revenue Account	496,365	447,930
Land Fund (note 38)	219,730	219,730
Capital Works Reserve Fund	64,105	67,980
Civil Service Pension Reserve Fund	27,129	27,029
Disaster Relief Fund	17	8
Innovation and Technology Fund	184	1,156
Lotteries Fund	22,026	21,571
Capital Investment Fund	1,864	2,440
Loan Fund	2,124	834
	<b>833,544</b>	<b>788,678</b>
<b>Placements with interest payable at market-based rates</b>		
General Revenue Account	4	3
<b>TOTAL</b>	<b>833,548</b>	<b>788,681</b>

Placements by Fiscal Reserves are repayable on demand. Interest on the majority of these placements is payable at a fixed rate determined every January. The rate is the average annual investment return of the Fund's Investment Portfolio for the past six years or the average annual yield of three-year Exchange Fund Notes for the previous year subject to a minimum of zero percent, whichever is the higher. This rate was fixed at 5.5% per annum for 2015 (2014: 3.6%). The accrued interest on these placements for 2015 amounting to HK\$45.2 billion (2014: HK\$27.5 billion) was earmarked for the establishment of a Housing Reserve in accordance with the directive made by the Financial Secretary and included in "other liabilities" (note 28).



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 24 PLACEMENTS BY HONG KONG SPECIAL ADMINISTRATIVE REGION GOVERNMENT FUNDS AND STATUTORY BODIES

	Group and Fund	
	2015	2014
<b>Placements with interest payable at a fixed rate<sup>1</sup> determined annually</b>		
Research Endowment Fund	26,351	25,805
Bond Fund	127,501	112,718
Housing Authority	40,008	37,923
West Kowloon Cultural District Authority	15,751	14,930
Trading Funds	7,883	7,472
Community Care Fund	17,420	16,512
Elite Athletes Development Fund	6,761	6,742
Samaritan Fund	6,943	6,581
Environment and Conservation Fund	5,245	4,971
Employees Retraining Board	13,591	12,882
Language Fund	5,424	5,142
Hospital Authority	7,903	7,491
	<b>280,781</b>	259,169
<b>Placements with interest payable at market-based rates</b>		
Deposit Protection Scheme Fund	65	1,970
<b>TOTAL</b>	<b>280,846</b>	261,139

<sup>1</sup> The rate is the average annual investment return of the Fund's Investment Portfolio for the past six years or the average annual yield of three-year Exchange Fund Notes for the previous year subject to a minimum of zero percent, whichever is the higher. This rate was fixed at 5.5% per annum for 2015 (2014: 3.6%).

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 25 EXCHANGE FUND BILLS AND NOTES ISSUED

	Group		Fund	
	2015	2014	2015	2014
At fair value				
<b>Exchange Fund Bills and Notes issued</b>				
Exchange Fund Bills	<b>769,784</b>	683,905	<b>769,784</b>	683,905
Exchange Fund Notes	<b>60,007</b>	69,641	<b>60,007</b>	69,641
	<b>829,791</b>	753,546	<b>829,791</b>	753,546
<b>Exchange Fund Bills held</b>	<b>(1,999)</b>	(1,600)	<b>(1,999)</b>	(1,100)
<b>TOTAL</b>	<b>827,792</b>	751,946	<b>827,792</b>	752,446

EFBN issued are unsecured obligations of the Fund and are one of the components of the Monetary Base in the Currency Board Account. Exchange Fund Bills are issued by the Fund for maturities not exceeding one year. Exchange Fund Notes are issued by the Fund with 2-year, 3-year, 5-year, 7-year, 10-year and 15-year maturities. EFBN issued are valued at offer prices derived from the "HKMA EFBN Closing Reference" adjusted by observed market spreads.

Since January 2015, the Fund has ceased to issue Exchange Fund Notes with tenors of three years or above to avoid overlapping with Government Bonds of the same tenors. To maintain the overall size of Exchange Fund paper, the Fund has issued additional Exchange Fund Bills to replace maturing Exchange Fund Notes of those tenors.

Exchange Fund Bills held by the Fund as a result of market making activities are considered as redemption of the bills issued and are derecognised.

An analysis of the nominal value of EFBN issued at the beginning and the end of year is set out below:

	Group				Fund			
	2015		2014		2015		2014	
	Exchange Fund Bills	Exchange Fund Notes	Exchange Fund Bills	Exchange Fund Notes	Exchange Fund Bills	Exchange Fund Notes	Exchange Fund Bills	Exchange Fund Notes
Issued by Currency Board Operations segment								
Nominal value at 1 January	<b>683,930</b>	<b>68,700</b>	715,813	68,100	<b>683,930</b>	<b>68,700</b>	715,813	68,100
Issuance	<b>2,237,406</b>	<b>4,800</b>	2,128,131	16,400	<b>2,237,406</b>	<b>4,800</b>	2,128,131	16,400
Redemption	<b>(2,151,515)</b>	<b>(14,900)</b>	(2,160,014)	(15,800)	<b>(2,151,515)</b>	<b>(14,900)</b>	(2,160,014)	(15,800)
Nominal value at 31 December	<b>769,821</b>	<b>58,600</b>	683,930	68,700	<b>769,821</b>	<b>58,600</b>	683,930	68,700
Long positions held by Financial Stability and Other Activities segment								
Nominal value at 31 December	<b>(2,000)</b>	-	(1,600)	-	<b>(2,000)</b>	-	(1,100)	-
Total nominal value	<b>767,821</b>	<b>58,600</b>	682,330	68,700	<b>767,821</b>	<b>58,600</b>	682,830	68,700
Carrying amount, at fair value	<b>767,785</b>	<b>60,007</b>	682,305	69,641	<b>767,785</b>	<b>60,007</b>	682,805	69,641
Difference	<b>36</b>	<b>(1,407)</b>	25	(941)	<b>36</b>	<b>(1,407)</b>	25	(941)

The fair value changes of EFBN issued are attributable to changes in benchmark interest rates.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 26 BANK LOANS

	Group		Fund	
	2015	2014	2015	2014
At amortised cost				
Bank loans repayable:				
Within one year	76	–	–	–
After one year but not later than two years	3,728	1,954	–	–
After two years but not later than five years	4,408	6,824	–	–
More than ten years	3,106	–	–	–
<b>TOTAL</b>	<b>11,318</b>	<b>8,778</b>	<b>–</b>	<b>–</b>

### 27 OTHER DEBT SECURITIES ISSUED

	Group		Fund	
	2015	2014	2015	2014
Debt securities issued, carried at amortised cost	5,682	5,109	–	–
Debt securities issued, designated as hedged items under fair value hedge	27,438	27,825	–	–
Debt securities issued, designated at fair value	343	336	–	–
<b>TOTAL</b>	<b>33,463</b>	<b>33,270</b>	<b>–</b>	<b>–</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

An analysis of the nominal value of other debt securities issued at the beginning and the end of year is set out below:

	Group		Fund	
	2015	2014	2015	2014
Total debt securities issued				
Nominal value at 1 January	34,415	31,425	-	-
Issuance	23,047	30,468	-	-
Redemption	(22,527)	(27,505)	-	-
Foreign currency translation differences	3	27	-	-
Nominal value at 31 December	34,938	34,415	-	-
Carrying amount	33,463	33,270	-	-
Difference	1,475	1,145	-	-
Debt securities issued, designated at fair value				
Nominal value	389	389	-	-
Carrying amount, at fair value	343	336	-	-
Difference	46	53	-	-

The fair value changes of debt securities issued designated at fair value are attributable to changes in benchmark interest rates.

## 28 OTHER LIABILITIES

	Group		Fund	
	2015	2014	2015	2014
Interest payable on placements by Fiscal Reserves <sup>1</sup>	74,154	27,487	74,154	27,487
Unsettled purchases of securities	32,275	24,902	32,275	24,902
Accrued charges and other liabilities	7,238	7,219	705	741
Other interest payable	362	353	145	166
Tax payable	139	151	-	-
Deferred tax liabilities	115	121	-	-
<b>TOTAL</b>	<b>114,283</b>	<b>60,233</b>	<b>107,279</b>	<b>53,296</b>

<sup>1</sup> In accordance with the directives made by the Financial Secretary in December 2014 and December 2015, the accrued interest on placements by Fiscal Reserves earned for 2014 (HK\$27,487 million) and 2015 (HK\$45,155 million) shall not be payable on 31 December of the respective years. The arrangement is intended to earmark for the establishment of a Housing Reserve a sum which may be made available for appropriation under the Public Finance Ordinance for the purpose of financing the development of public housing and public housing-related projects and infrastructure. The sum shall earn interest at the fixed rate (note 23) and shall be payable to the fund accounts of the Fiscal Reserves on a date determined by the Financial Secretary. The interest accrued in 2015 on the portion of Housing Reserve earmarked in December 2014 (HK\$27,487 million) was HK\$1,512 million.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 29 EQUITY

	Group		Fund	
	2015	2014	2015	2014
<b>Attributable to owner of the Fund</b>				
<b>Accumulated surplus</b>				
At 1 January	665,995	657,989	635,452	637,508
(Deficit)/Surplus for the year	(74,473)	8,006	(90,597)	(2,056)
At 31 December	591,522	665,995	544,855	635,452
<b>Revaluation reserve</b>				
At 1 January	12,539	13,563	-	-
Fair value changes on available-for-sale securities:				
– revaluation	(3,923)	(944)	-	-
– realisation on disposal	(157)	(63)	-	-
– tax effect	40	(20)	-	-
Fair value changes on cash flow hedges:				
– transferred to income and expenditure account	3	3	-	-
– tax effect	(1)	-	-	-
	(4,038)	(1,024)	-	-
At 31 December	8,501	12,539	-	-
<b>Translation reserve</b>				
At 1 January	(830)	73	-	-
Currency translation differences:				
– subsidiaries, associates and joint ventures	(923)	(890)	-	-
– reserve released on disposal of a subsidiary classified as assets held for sale	-	(13)	-	-
	(923)	(903)	-	-
At 31 December	(1,753)	(830)	-	-
	598,270	677,704	544,855	635,452
<b>Non-controlling interests</b>				
At 1 January	878	566	-	-
Surplus for the year	218	127	-	-
Currency translation differences	(12)	(16)	-	-
Capital injection by non-controlling interests	14	228	-	-
Disposal of a subsidiary classified as assets held for sale	-	(13)	-	-
Dividends paid to non-controlling interests	(13)	(14)	-	-
At 31 December	1,085	878	-	-
<b>TOTAL</b>	<b>599,355</b>	<b>678,582</b>	<b>544,855</b>	<b>635,452</b>

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 30 ANALYSIS OF CASH AND CASH EQUIVALENTS IN THE STATEMENT OF CASH FLOWS

	Group		Fund	
	2015	2014	2015	2014
Cash and money at call	<b>188,547</b>	196,701	<b>187,835</b>	195,528
Placements with banks and other financial institutions	<b>106,734</b>	125,726	<b>98,795</b>	117,774
Treasury bills and commercial paper	<b>79,475</b>	480	<b>79,475</b>	480
<b>TOTAL</b>	<b>374,756</b>	322,907	<b>366,105</b>	313,782

#### Reconciliation with the balance sheet

	Note	Group		Fund	
		2015	2014	2015	2014
<b>Amounts shown in the balance sheet</b>					
Cash and money at call	7	<b>188,547</b>	196,701	<b>187,835</b>	195,528
Placements with banks and other financial institutions	8	<b>123,880</b>	138,239	<b>102,681</b>	120,080
Treasury bills and commercial paper	9	<b>958,005</b>	719,166	<b>958,005</b>	719,166
		<b>1,270,432</b>	1,054,106	<b>1,248,521</b>	1,034,774
Less: Amounts with original maturity beyond 3 months		<b>(895,676)</b>	(731,199)	<b>(882,416)</b>	(720,992)
<b>Cash and cash equivalents in the statement of cash flows</b>		<b>374,756</b>	322,907	<b>366,105</b>	313,782

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 31 OPERATING SEGMENT INFORMATION

The Group determines its operating segments based on the reports reviewed by the chief operating decision maker. As a central banking institution, the HKMA is responsible for managing the Exchange Fund and maintaining the monetary and banking stability of Hong Kong. The Group comprises operating segments as stated in note 2.19.

	Group							
	Currency Board Operations (note 31(a))		Reserves Management		Financial Stability and Other Activities		Total	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Income</b>								
Interest and dividend income	5,056	3,738	25,822	24,862	1,398	1,168	32,276	29,768
Investment gains/(losses)	(1,068)	2,417	(38,056)	16,995	(2,261)	(658)	(41,385)	18,754
Other income	-	-	42	21	692	668	734	689
	<b>3,988</b>	6,155	<b>(12,192)</b>	41,878	<b>(171)</b>	1,178	<b>(8,375)</b>	49,211
<b>Expenditure</b>								
Interest expense	698	1,389	61,907	36,603	272	265	62,877	38,257
Other expenses	1,063	922	1,463	1,363	2,331	2,183	4,857	4,468
	<b>1,761</b>	2,311	<b>63,370</b>	37,966	<b>2,603</b>	2,448	<b>67,734</b>	42,725
<b>(Deficit)/Surplus before share of profit of associates and joint ventures</b>	<b>2,227</b>	3,844	<b>(75,562)</b>	3,912	<b>(2,774)</b>	(1,270)	<b>(76,109)</b>	6,486
Share of profit of associates and joint ventures, net of tax	-	-	1,958	1,713	19	17	1,977	1,730
<b>(Deficit)/Surplus before taxation</b>	<b>2,227</b>	3,844	<b>(73,604)</b>	5,625	<b>(2,755)</b>	(1,253)	<b>(74,132)</b>	8,216

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Group									
	Currency Board Operations (note 31(a))		Reserves Management		Financial Stability and Other Activities		Re-allocation (note 31(b) & (c))		Total	
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
<b>Assets</b>										
Backing Assets										
Investment in designated US dollar assets	1,695,018	1,449,637	-	-	-	-	-	-	1,695,018	1,449,637
Interest receivable on designated US dollar assets	1,310	1,309	-	-	-	-	-	-	1,310	1,309
Net accounts receivable/(payable)	(3,872)	(7,750)	-	-	-	-	3,872	7,750	-	-
Other investments	-	-	1,646,893	1,607,178	159,527	157,899	(1,999)	(1,600)	1,804,421	1,763,477
Other assets	-	-	23,261	21,604	6,144	5,799	1,155	875	30,560	28,278
<b>TOTAL ASSETS</b>	<b>1,692,456</b>	<b>1,443,196</b>	<b>1,670,154</b>	<b>1,628,782</b>	<b>165,671</b>	<b>163,698</b>	<b>3,028</b>	<b>7,025</b>	<b>3,531,309</b>	<b>3,242,701</b>
<b>Liabilities</b>										
Monetary Base										
Certificates of Indebtedness	357,863	340,184	-	-	-	-	-	-	357,863	340,184
Government-issued currency notes and coins in circulation	11,335	11,028	-	-	-	-	-	-	11,335	11,028
Balance of the banking system	391,343	239,183	-	-	-	-	-	-	391,343	239,183
Exchange Fund Bills and Notes issued	829,791	753,546	-	-	-	-	(1,999)	(1,600)	827,792	751,946
Interest payable on Exchange Fund Notes	145	166	-	-	-	-	-	-	145	166
Net accounts (receivable)/payable	(1,128)	(727)	-	-	-	-	1,155	875	27	148
Other debt securities issued	-	-	-	-	33,463	33,270	-	-	33,463	33,270
Placements by banks and other financial institutions	-	-	6,243	830	60,664	63,171	-	-	66,907	64,001
Bank loans	-	-	11,318	8,778	-	-	-	-	11,318	8,778
Placements by Fiscal Reserves	-	-	833,548	788,681	-	-	-	-	833,548	788,681
Placements by HKSAR Government funds and statutory bodies	-	-	280,781	259,169	65	1,970	-	-	280,846	261,139
Other liabilities	-	-	105,294	49,723	8,201	8,122	3,872	7,750	117,367	65,595
<b>TOTAL LIABILITIES</b>	<b>1,589,349</b>	<b>1,343,380</b>	<b>1,237,184</b>	<b>1,107,181</b>	<b>102,393</b>	<b>106,533</b>	<b>3,028</b>	<b>7,025</b>	<b>2,931,954</b>	<b>2,564,119</b>



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## **(a) Currency Board Operations**

Starting from 1 October 1998, specific US dollar assets of the Fund have been designated to back the Monetary Base, which comprises Certificates of Indebtedness, government-issued currency notes and coins in circulation, the balance of the banking system and EFBN issued. While specific assets of the Fund have been earmarked for backing the Monetary Base, all the Fund's assets are available for the purpose of supporting the Hong Kong dollar exchange rate under the Linked Exchange Rate system.

In accordance with an arrangement approved by the Financial Secretary in January 2000, assets can be transferred between the Backing Portfolio and general reserves when the Backing Ratio reaches either the upper trigger point (112.5%) or the lower trigger point (105%). This arrangement allows transfer of excess assets out of the Backing Portfolio to maximise their earning potential while ensuring that there are sufficient liquid assets in the Backing Portfolio. The Backing Ratio stood at 106.33% as at 31 December 2015 (2014: 107.27%).

## **(b) Re-allocation of assets and liabilities**

For the purpose of the Currency Board Operations segment, certain liabilities of the Fund are deducted from the Backing Assets and certain assets are deducted from the Monetary Base in order to allow proper computation of the Backing Ratio. This re-allocation adjustment adds back these items in order to reconcile the segmental information to the Group balance sheet.

The Backing Assets are presented on a net basis in the Currency Board Operations. Accounts payable for unsettled purchases of securities are included in "net accounts payable" to offset corresponding investments in the Backing Assets. As at 31 December 2015, deductions from the Backing Assets comprised "other liabilities" of HK\$3,872 million (2014: HK\$7,750 million).

The Monetary Base is also presented on a net basis. As Hong Kong dollar interest rate swaps have been used as a means to manage the cost of issuing Exchange Fund Notes, interest receivable of HK\$30 million (2014: HK\$27 million) and unrealised gains of HK\$1,125 million (2014: HK\$848 million) on these interest rate swaps are included in "net accounts (receivable)/payable" to reduce the Monetary Base. As at 31 December 2015, deductions from the Monetary Base comprised "other assets" of HK\$1,155 million (2014: HK\$875 million).

## **(c) EFBN held by the Financial Stability and Other Activities segment are treated as redemption of EFBN issued in the Currency Board Operations segment.**

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### 32 PLEDGED ASSETS

Assets are pledged as margin for equity index contracts, bond futures contracts and securities lending agreements and as collateral for securing general banking facilities. Securities lent do not include EFBN in issue. There are no financial assets pledged against contingent liabilities.

	Note	Group		Fund	
		2015	2014	2015	2014
<b>Secured liabilities</b>					
Bond futures contracts, at fair value	11(a)	38	8	38	8
Interest rate futures contracts, at fair value	11(a)	1	1	1	1
Interest rate swap contracts, at fair value		5	27	5	27
Bank loans	26	11,318	8,778	-	-
<b>Assets pledged</b>					
Cash and money at call		307	92	307	92
Financial assets designated at fair value		7,550	6,901	7,550	6,901
Investment properties		23,621	17,493	-	-

During the year, the Group entered into collateralised reverse repurchase agreements, repurchase agreements and securities lending transactions that may result in credit exposure in the event that the counterparty to the transaction is unable to fulfil its contractual obligations. The Group controls credit risk associated with these activities by monitoring counterparty credit exposure and collateral values on a daily basis and requiring additional collateral to be deposited with or returned to the Group when deemed necessary.

These transactions are conducted under terms that are usual and customary to standard lending, and securities borrowing and lending activities.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 33 COMMITMENTS

### (a) Capital commitments

Capital expenditure authorised but not provided for in the financial statements at the balance sheet date was as follows:

	Group		Fund	
	2015	2014	2015	2014
Contracted for	16	6	–	6
Authorised but not yet contracted for	343	227	242	181
	359	233	242	187

### (b) Credit facility to the International Monetary Fund

The Fund has participated in the New Arrangements to Borrow (NAB), a standby credit facility provided to the International Monetary Fund (IMF) for the purpose of managing instability in the international monetary system. The facility is subject to periodic review and renewal. As at 31 December 2015, the Fund had an undertaking under the NAB to lend foreign currencies to the IMF up to HK\$3,651 million equivalent (2014: HK\$3,820 million equivalent), in the form of a loan bearing prevailing market interest rates. The outstanding principal due from the IMF under the NAB amounted to HK\$355 million equivalent with a repayment term of five years (2014: HK\$459 million equivalent).

### (c) Credit facility to the Hong Kong Deposit Protection Board

The Fund has provided the Hong Kong Deposit Protection Board (HKDPB) with a standby credit facility of HK\$120 billion (2014: HK\$120 billion) at prevailing market interest rates for meeting the necessary liquidity required for payment of compensation in the event of a bank failure. As at 31 December 2015, there was no outstanding balance due from the HKDPB under this facility (2014: Nil).

### (d) Credit facility to The Hong Kong Mortgage Corporation Limited

The Fund has provided the HKMC with a revolving credit facility of HK\$30 billion (2014: HK\$30 billion) at prevailing market interest rates. As at 31 December 2015, there was no outstanding balance due from the HKMC under this facility (2014: Nil).

### (e) Repurchase agreements with other central banks

The Fund has entered into bilateral repurchase agreements with various central banks in Asia and Australasia amounting up to HK\$44,563 million equivalent (2014: HK\$44,590 million equivalent). The arrangement allows each organisation to enhance the liquidity of its foreign reserve portfolio with minimal additional risk. As at 31 December 2015, there was no outstanding transaction with any central bank under this arrangement (2014: Nil).

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## (f) Chiang Mai Initiative Multilateralisation Agreement

The Chiang Mai Initiative Multilateralisation (CMIM) was established under the aegis of the 10 Association of Southeast Asian Nations (ASEAN) member countries together with China, Japan and Korea (ASEAN+3) to provide short-term US dollars through currency swap transactions to participants facing balance-of-payments and liquidity difficulties with a total size of US\$240 billion (2014: US\$240 billion). Hong Kong, through the HKMA, participates in the CMIM and has undertaken to commit up to US\$8.4 billion (2014: US\$8.4 billion) out of the Fund. Hong Kong has the right to request liquidity support up to US\$6.3 billion (2014: US\$6.3 billion) from the CMIM in case of emergency. Up to 31 December 2015, there had been no request to activate the CMIM (2014: Nil).

## (g) Bilateral swap agreement

The People's Bank of China and the HKMA renewed a bilateral swap agreement in November 2014 for another three years, with a size of RMB400 billion/HK\$505 billion. This currency swap agreement helps facilitate the development of offshore renminbi business in Hong Kong. The bilateral swap outstanding as at 31 December 2015 was RMB55.6 billion (2014: RMB51.1 billion).

## (h) Investment commitments

The Group's subsidiaries with principal activities of holding investments, including properties, had outstanding investment commitment of HK\$122,405 million equivalent as at 31 December 2015 (2014: HK\$80,948 million equivalent).

## (i) Lease commitments

As at 31 December 2015, the total future minimum lease payments payable under non-cancellable operating leases of premises were as follows:

	Group		Fund	
	2015	2014	2015	2014
Within one year	94	92	61	61
After one year but not later than five years	87	175	57	113
Later than five years	–	4	–	4
<b>TOTAL</b>	<b>181</b>	<b>271</b>	<b>118</b>	<b>178</b>

## (j) Financial Dispute Resolution Centre Limited

The HKMA signed a Memorandum of Understanding together with the Financial Services and the Treasury Bureau and the Securities and Futures Commission on 21 December 2011 regarding the funding arrangement on the set-up and operating costs of the Financial Dispute Resolution Centre Limited (FDRCL). The funding arrangement has been extended for three years to December 2017. During the year, the Fund contributed HK\$7 million to FDRCL (2014: HK\$4 million). The outstanding commitment of the Fund to contribute to FDRCL as at 31 December 2015 was HK\$14 million (2014: HK\$21 million).

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 34 CONTINGENT LIABILITIES

### (a) Uncalled portion of investment in the Bank for International Settlements

As at 31 December 2015, the Fund had a contingent liability of up to 16.1 million Special Drawing Rights (SDRs) or HK\$173 million equivalent (2014: 16.1 million SDRs or HK\$181 million equivalent), in respect of the uncalled portion of its 4,285 shares (2014: 4,285 shares) in the Bank for International Settlements (note 10).

SDR is an international reserve asset created by the International Monetary Fund. Its value is based on a basket of four major currencies comprising US dollar, euro, Japanese yen and pound sterling. As at 31 December 2015, SDR 1 was valued at US\$1.38573 (2014: US\$1.44881).

### (b) Financial guarantee

The Group has provided guarantees in respect of bank loans granted to joint ventures. The maximum liability as at 31 December 2015 was HK\$687 million equivalent (2014: Nil).

## 35 MATERIAL RELATED PARTY TRANSACTIONS

Transactions with related parties are conducted at rates determined by the Monetary Authority taking into account the nature of each transaction on a case-by-case basis.

In addition to the transactions and balances disclosed elsewhere in these financial statements, during the year, the Group, through the HKMC, purchased HK\$209 million (2014: HK\$108 million) of mortgage loans from the HKSAR Government.

The Exchange Fund Advisory Committee (EFAC) through its Sub-Committees advises the Financial Secretary in his control of the Fund. Members of the EFAC and its Sub-Committees are appointed in a personal capacity by the Financial Secretary for the expertise and experience that they can bring to the Committees. Transactions with companies related to members of the EFAC and its Sub-Committees, if any, have been conducted as a normal part of the operation of the Group and on terms consistent with its ongoing operations.

## 36 FINANCIAL RISK MANAGEMENT

This note presents information about the nature and extent of risks to which the Group is exposed, in particular those arising from financial instruments, and the risk management framework of the Group. The principal financial risks the Group is exposed to are credit risk, market risk and liquidity risk.

### 36.1 Governance

The Financial Secretary is advised by the EFAC in his control of the Fund. The EFAC is established under section 3(1) of the Exchange Fund Ordinance, which requires the Financial Secretary to consult the Committee in his exercise of control of the Fund. Members of the EFAC are appointed in a personal capacity by the Financial Secretary under the delegated authority of the Chief Executive of the HKSAR for the expertise and experience that they can bring to the Committee. Such expertise and experience include knowledge of monetary, financial and economic affairs and of investment issues, as well as of accounting, management, business and legal matters.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The EFAC is assisted in its work by five Sub-Committees, which monitor specific areas of the HKMA's work and report and make recommendations to the Financial Secretary through the EFAC.

Among these Sub-Committees, the Investment Sub-Committee (ISC) monitors the HKMA's investment management activities and makes recommendations on the investment policy and strategy of the Fund and on risk management and other related matters. Operating within the policies and guidelines endorsed by the EFAC, the Reserves Management Department of the HKMA conducts the day-to-day investment management of the Fund while the Risk and Compliance Department, which is independent of the Reserves Management Department, carries out the risk management activities of the Fund.

## 36.2 Investment management and control

Investment activities of the Fund are conducted in accordance with the investment benchmark derived from the Fund's investment objectives. The investment benchmark directs the strategic asset allocation of the Fund and is reviewed on a regular basis to ensure that it consistently meets the investment objectives. Changes to the investment benchmark, if required, must be endorsed by the EFAC.

The Fund's target asset and currency mix were as follows:

	2015	2014
<b>Asset type</b>		
Bonds	72%	73%
Equities and related investments	28%	27%
	100%	100%
<b>Currency</b>		
US dollar and Hong Kong dollar	81%	77%
Others <sup>1</sup>	19%	23%
	100%	100%

<sup>1</sup> Other currencies included mainly Australian dollar, Canadian dollar, euro, pound sterling and Japanese yen.

In addition to the investment benchmark, the EFAC determines the tactical deviation limits governing the extent to which the Fund's asset and currency mix may deviate from the investment benchmark. The tactical deviation limits are used to guide the medium term investments of the Fund. The tactical deviation limits are derived from a risk-based approach, taking into account the risk tolerance level set by the EFAC and risk contributions of the asset classes and markets that the Fund is allowed to invest in. These risk contributions reflect the neutral allocations of asset markets within the investment benchmark, and the volatility of and correlation across asset markets. Authority to take medium term investment decisions is delegated to senior management of the HKMA down to the Executive Director level.

The Risk and Compliance Department is responsible for risk management and compliance monitoring regarding the investments of the Fund. It monitors the risk exposure of the Fund, checks compliance of investment activities against established guidelines and reports and follows up any identified breaches.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.3 Credit risk

Credit risk is the risk of financial loss when a counterparty or a borrower fails to meet its contractual obligations. The Group's credit risk arises principally from the investments of the Fund and the loan portfolio of the HKMC.

### 36.3.1 Management of credit risk

The HKMA maintains effective credit risk management over the investments of the Fund. Based on the delegated authority of the EFAC, the Credit Review and Compliance Committee (CRCC) was established within the HKMA with the following responsibilities: (i) to establish and maintain the Credit Exposure Policy to govern the investments of the Fund; (ii) to review the adequacy of the existing credit risk management practices and, where necessary, formulate proposals for amendments; (iii) to conduct analysis of credit risk issues; (iv) to establish and review credit limits for the approved issuers and counterparties; and (v) to monitor the compliance of the investments of the Fund with the established policies and limits, and report and follow up any identified breaches. The CRCC is chaired by the Deputy Chief Executive (Monetary) whose responsibilities are independent of the day-to-day investment activities of the Fund, and includes representatives from the Reserves Management Department, the Monetary Management Department, the Research Department and the Risk and Compliance Department of the HKMA.

In light of the rapidly evolving risk environment, the HKMA will remain vigilant in monitoring and managing the Fund's credit risk exposure, and will sustain the impetus for better credit risk management practices to support the investment activities of the Fund.

Credit limits are established in accordance with in-house methodologies as set out in the Exchange Fund Investment Policy and Credit Exposure Policy to limit exposures to counterparty, issuer and country risks arising from the investments of the Fund.

#### (a) Counterparty risk

The Fund selects its counterparties in lending, placement, derivatives and trading transactions prudently and objectively. Since the Fund conducts transactions with a counterparty for a range of financial instruments, credit limits are established to limit the overall exposure to each authorised counterparty based on its credit ratings, financial strength and other relevant information.

Counterparty credit exposures are measured according to the risk nature of financial products involved in the transaction. Counterparty credit exposures of derivatives include an estimate for the potential future credit exposure of the derivative contracts, in addition to their positive mark-to-market replacement value.

#### (b) Issuer risk

Issuer risk arises from investments in debt securities. Credit limits for approved issuers are set on both individual and group levels to control the risk of loss arising from the default of debt securities issuers and to prevent undue risk concentration.

Moreover, to be qualified as an approved investment, a new market or financial instrument must meet the minimum credit, security and liquidity requirements of the Fund.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## (c) Country risk

Country risk is broadly defined to include both the sovereign risk and the transfer risk. Sovereign risk denotes a government's ability and willingness to repay its obligations. Transfer risk is the risk that a borrower may not be able to secure foreign exchange to service its external obligations, for example, due to an action by the government to impose restrictions on the transfer of funds from the debtors in the country to foreign creditors. Under the existing framework, country limits are established to control the Fund's overall credit risk exposures to the countries endorsed by the CRCC.

The above credit limits are reviewed regularly. Credit exposure is monitored against these limits on a daily basis. To ensure prompt identification, proper approval and consistent monitoring of credit risk, the Fund has implemented a unified automated credit monitoring system which provides fully-integrated straight-through-processing linking the front, middle and back office functions. The pre-deal checking takes place in the front office prior to the commitment of any transaction to ensure that the intended transaction will not exceed the credit limits. The end-of-day compliance checking further verifies that the Fund complies with the established credit policies and procedures.

Any breaches of credit limits are reported to the CRCC, the ISC and the EFAC, and are followed up by the Risk and Compliance Department in a timely manner. The approval authorities to sanction these breaches are set out in the Credit Exposure Policy.

To manage the exposure to credit risk arising from the loan portfolio and mortgage insurance business, a four-pronged approach is established for (i) selecting Approved Sellers carefully, (ii) adopting prudent mortgage purchasing criteria and insurance eligibility criteria, (iii) conducting effective due diligence reviews and (iv) ensuring adequate protection for higher-risk mortgages.

### 36.3.2 Exposure to credit risk

The maximum exposure to credit risk of the financial assets of the Group and the Fund are equal to their carrying amounts. The maximum exposures to credit risk of off-balance sheet exposures are as follows:

	Note	Group		Fund	
		2015	2014	2015	2014
Risk in force – mortgage insurance	36.6	<b>13,409</b>	13,118	–	–
Risk in force – other guarantees and insurance	36.6	<b>2,996</b>	2,094	–	–
Loan commitments, guarantees and other credit related commitments		<b>356,067</b>	314,061	<b>262,975</b>	263,113
<b>TOTAL</b>		<b>372,472</b>	329,273	<b>262,975</b>	263,113

The loan portfolio is secured by mortgages on properties. Reserve funds and deferred consideration are also used as an additional form of credit enhancement.



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.3.3 Credit quality

The Group predominantly invests in liquid Organisation for Economic Co-operation and Development (OECD) government bonds and other quasi-government debt securities issues. As at 31 December 2015, approximately 85% (2014: 85%) of the debt securities held by the Group were rated “double-A” or above by both Moody’s and Standard & Poor’s. The credit quality of major financial assets is analysed below:

	Group		Fund	
	2015	2014	2015	2014
<b>Cash and money at call, placements with banks and other financial institutions, by credit rating<sup>1</sup></b>				
AAA	259	14	259	14
AA- to AA+	61,345	86,141	60,108	79,398
A- to A+	163,817	131,487	144,871	120,007
Lower than A- or un-rated <sup>2</sup>	87,006	117,298	85,278	116,189
	<b>312,427</b>	334,940	<b>290,516</b>	315,608
<b>Debt securities, by credit rating<sup>1</sup></b>				
AAA	445,772	355,016	444,554	353,811
AA- to AA+	1,666,126	1,500,054	1,656,063	1,490,654
A- to A+	127,737	91,036	124,445	88,223
Lower than A- or un-rated <sup>2</sup>	249,657	224,197	236,937	213,572
	<b>2,489,292</b>	2,170,303	<b>2,461,999</b>	2,146,260
<b>Loan portfolio</b>				
Neither past due nor impaired (note 36.3.3(a))	11,191	15,212	-	-
Past due but not impaired (note 36.3.3(b))	311	359	-	-
Impaired (note 36.3.3(c))	1	2	-	-
Allowance for loan impairment	(1)	(1)	-	-
	<b>11,502</b>	15,572	-	-
<b>TOTAL</b>	<b>2,813,221</b>	2,520,815	<b>2,752,515</b>	2,461,868

<sup>1</sup> This is the lower of ratings designated by Moody’s and Standard & Poor’s.

<sup>2</sup> These included mainly balances with central banks and debt securities issued by the Bank for International Settlements which are not rated.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

(a) Loans that are neither past due nor impaired

An internal rating system is used for assessing the credit quality of the loan portfolio. Grades 1 to 3 include loans with no previous past due experience and with different levels of credit enhancements in addition to the collateral. Grade 4 includes loans with previous past due experience and with further credit enhancements in addition to collateral. Grade 5 includes loans with previous past due experience and collateral but without further credit enhancement. The credit quality of loans that were neither past due nor impaired at the balance sheet date is analysed below:

	Group		Fund	
	2015	2014	2015	2014
Grades				
1 to 3	11,170	15,191	-	-
4	1	-	-	-
5	20	21	-	-
<b>TOTAL</b>	<b>11,191</b>	15,212	-	-

(b) Loans that are past due but not impaired

These are loans where contractual interest or principal payments are past due but the Group believes that recognising an impairment loss is not appropriate on the basis of the level of collateral held. The loans that were past due but not impaired at the balance sheet date are analysed below:

	Group		Fund	
	2015	2014	2015	2014
Loans that were past due				
90 days or less	310	358	-	-
91 to 180 days	-	-	-	-
over 180 days	1	1	-	-
<b>TOTAL</b>	<b>311</b>	359	-	-
Fair value of collateral and other credit enhancements	<b>3,110</b>	2,584	-	-

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### (c) Impaired loans

These are loans where the Group determines on an individual basis that it is probable that it will be unable to collect all principal and interest due according to the contractual terms of the loan agreements. As at 31 December 2015, there was no related collateral held and credit enhancement (2014: HK\$5 million).

### (d) Repossessed collateral

The Group obtained assets by taking possession of collateral held as security. Repossessed properties are sold as soon as practicable, with the proceeds used to reduce the outstanding indebtedness. As at 31 December 2015, there were no repossessed properties held by the Group (2014: HK\$1 million).

### 36.3.4 Concentration of credit risk

The majority of the Group's debt holdings are highly liquid securities issued or guaranteed by OECD governments and other quasi-government entities. The maximum credit risk exposure by industry groups is analysed below:

	Group		Fund	
	2015	2014	2015	2014
Governments and government agencies <sup>1</sup>	<b>2,177,277</b>	1,977,746	<b>2,177,031</b>	1,977,462
Supra-nationals	<b>198,275</b>	159,847	<b>198,275</b>	159,847
States, provinces and public-sector entities <sup>2</sup>	<b>183,428</b>	166,689	<b>212,734</b>	196,008
Financial institutions	<b>301,461</b>	275,277	<b>270,527</b>	246,950
Others <sup>3</sup>	<b>353,772</b>	296,647	<b>280,265</b>	252,188
<b>TOTAL</b>	<b>3,214,213</b>	2,876,206	<b>3,138,832</b>	2,832,455

<sup>1</sup> These included debt securities guaranteed by governments.

<sup>2</sup> These included debt securities guaranteed by states.

<sup>3</sup> These included debt securities issued by the Bank for International Settlements.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.4 Market risk

Market risk is the risk that changes in market variables such as interest rates, exchange rates and equity prices may affect the fair values or cash flows of investments.

### 36.4.1 Types of market risk

#### (a) Interest rate risk

Interest rate risk refers to the risk of loss arising from changes in market interest rates. This can be further classified into fair value interest rate risk and cash flow interest rate risk.

Fair value interest rate risk is the risk that the fair value of a financial instrument will fluctuate because of changes in market interest rates. The Group is exposed to fair value interest rate risk since a substantial portion of its investments is in fixed-rate debt securities. These securities are subject to interest rate risk as their fair values will fall when market interest rates increase. Other significant financial assets and financial liabilities with a fixed interest rate, and therefore subject to interest rate risk, include placements with banks and other financial institutions and EFBN issued.

Cash flow interest rate risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Because the Group has no significant floating-rate investments and liabilities, the Group's future cash flows are not materially affected by potential changes in market interest rates.

#### (b) Currency risk

Currency risk is the risk of loss arising from changes in foreign exchange rates. A large portion of the Group's foreign currency assets is held in US dollars with the remaining mainly in other major international currencies. When the exchange rates of the relevant foreign currencies against the Hong Kong dollar fluctuate, the value of these foreign currency assets expressed in Hong Kong dollar will vary accordingly.

Due to the linked exchange rate of the US dollar relative to the Hong Kong dollar, the Group's currency risk principally arises from its assets and liabilities denominated in foreign currencies other than the US dollar.

#### (c) Equity price risk

Equity price risk is the risk of loss arising from changes in prices or valuation. The Group's equity and related investments are subject to price risk since the value of these investments will decline if market prices or valuation fall.

The majority of the equity securities held by the Group are constituent stocks of major stock market indexes and companies with large market capitalisation.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.4.2 Management of market risk

The market risk of the Fund as a whole is regularly measured and monitored to prevent excessive risk exposure. The investment benchmark and tactical deviation limits of the Fund govern the asset allocation strategies. This, together with the volatility of asset markets, will affect the Fund's market risk exposure. The Fund uses derivative financial instruments to manage its exposures to market risk and facilitate the implementation of investment strategies. The market risk of the Fund is mainly measured and monitored using a Value-at-Risk (VaR) methodology.

VaR is calculated using the parametric approach based on a 95% confidence level and one-month time horizon. The result represents the maximum expected loss of the Fund over a one-month period under normal market conditions, with a 5% chance that the actual loss may exceed the calculated VaR. The Fund's absolute VaR and the relative VaR (i.e. the VaR of the Fund relative to its investment benchmark), expressed in dollar amounts, are measured by the Risk and Compliance Department and reported to management, the ISC and the EFAC on a regular basis.

The relative VaR of the Fund is also used to calculate the actual tracking error of the Fund against its investment benchmark. This is regularly monitored against the tracking error limit endorsed by the EFAC to ensure that the market risk exposure of the Fund is within its limit. The tracking error of a portfolio indicates how well the portfolio tracks its investment benchmark. The smaller the tracking error, the closer the portfolio tracks its benchmark. The tracking error limit is established to prevent the Fund from taking unduly large market risk with respect to its investment benchmark. The actual tracking error of the Fund is regularly reported to the ISC and the EFAC, and any breach of the limit is followed up in a timely manner.

VaR is a widely accepted measure of market risk within the financial services industry. It provides users with a single amount to measure market risk and takes into account multiple risks. VaR should however be assessed in the context of some of its inherent limitations. The calculation of VaR involves a number of assumptions that may or may not be valid in a real life scenario, in particular in extreme market conditions. The calculation of VaR assumes that future events can be predicted by historical data, and that changes in risk factors follow a normal distribution. The end-of-day basis does not reflect intraday exposures. In addition, the confidence level on which calculation of VaR is based needs to be taken into account as it indicates the possibility that a larger loss could be realised.

To compensate for some of the limitations of VaR, the HKMA also conducts stress tests to estimate the potential losses under extremely adverse market conditions. This serves to identify the major attributes of market risk under extreme market conditions, and helps to prevent the Fund from being exposed to excessive market risk. The results of the stress tests are also reported to the ISC and the EFAC on a regular basis.

To manage the interest rate risk arising from the fixed-rate debt securities issued by the Group to fund the purchase of portfolios of loans, a major portion of the risk is hedged using fair value hedges in the form of interest rate swaps by swapping into floating-rate funding to better match the floating-rate assets.

The Fund's investment in less liquid assets (i.e. private equity and real estate) is grouped under the Long-Term Growth Portfolio. The investment risks of the less liquid assets are managed at the aggregate level through such measures as asset class approval, allocation limit and aggregate general partner exposure. As determined by the EFAC, the maximum size of the Long-Term Growth Portfolio is at one-third of the Accumulated Surplus of the Exchange Fund.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.4.3 Exposure to market risk

### (a) Interest rate risk

The interest rate gap position in respect of the Group's major interest-bearing assets and liabilities, including the net repricing effect of interest rate derivatives is shown below. The assets and liabilities are stated at carrying amounts at the balance sheet date and categorised by the earlier of contractual repricing dates or maturity dates.

	Group – 2015							Non-interest-bearing financial instruments
	Repricing period of interest-bearing financial instruments							
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years	Total	
<b>Assets</b>								
Cash and money at call	121,904	-	-	-	-	-	121,904	66,643
Placements with banks and other financial institutions	103,262	10,331	10,268	-	-	-	123,861	19
Financial assets designated at fair value	615,829	470,674	425,812	625,251	194,364	122,485	2,454,415	560,987
Available-for-sale securities	602	1,365	810	1,522	-	-	4,299	100,176
Held-to-maturity securities	177	233	551	5,241	4,072	-	10,274	-
Loan portfolio	11,426	36	13	27	-	-	11,502	-
<b>Interest-bearing assets</b>	<b>853,200</b>	<b>482,639</b>	<b>437,454</b>	<b>632,041</b>	<b>198,436</b>	<b>122,485</b>	<b>2,726,255</b>	
<b>Liabilities</b>								
Placements by banks and other financial institutions	6,243	-	-	-	-	-	6,243	60,664
Placements by Fiscal Reserves with interest payable at market-based rates <sup>1</sup>	4	-	-	-	-	-	4	-
Placements by HKSAR Government funds and statutory bodies with interest payable at market-based rates <sup>1</sup>	65	-	-	-	-	-	65	-
Exchange Fund Bills and Notes issued	185,864	407,366	189,857	28,511	11,172	5,022	827,792	-
Bank loans	8,212	-	-	-	-	3,106	11,318	-
Other debt securities issued	7,031	9,017	6,690	7,564	2,178	983	33,463	-
<b>Interest-bearing liabilities</b>	<b>207,419</b>	<b>416,383</b>	<b>196,547</b>	<b>36,075</b>	<b>13,350</b>	<b>9,111</b>	<b>878,885</b>	
<b>Net interest-bearing assets/(liabilities)</b>	<b>645,781</b>	<b>66,256</b>	<b>240,907</b>	<b>595,966</b>	<b>185,086</b>	<b>113,374</b>	<b>1,847,370</b>	
<b>Interest rate derivatives (net position, notional amounts)</b>	<b>18,675</b>	<b>(30,938)</b>	<b>6,593</b>	<b>(12,507)</b>	<b>11,502</b>	<b>4,800</b>	<b>(1,875)</b>	
<b>Interest rate sensitivity gap</b>	<b>664,456</b>	<b>35,318</b>	<b>247,500</b>	<b>583,459</b>	<b>196,588</b>	<b>118,174</b>	<b>1,845,495</b>	

<sup>1</sup> Placements by Fiscal Reserves, HKSAR Government funds and statutory bodies with interest payable at a fixed rate determined annually are excluded because their interest rate is not fixed directly on the basis of market interest rates (notes 23 and 24). The fixed rate is determined every January. As at 31 December 2015, such placements amounted to HK\$1,114,325 million.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Group – 2014							Non-interest-bearing financial instruments
	Repricing period of interest-bearing financial instruments							
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years	Total	
<b>Assets</b>								
Cash and money at call	132,002	-	-	-	-	-	132,002	64,699
Placements with banks and other financial institutions	128,422	8,054	1,744	-	-	-	138,220	19
Financial assets designated at fair value	356,282	297,577	678,489	510,146	193,976	101,935	2,138,405	592,810
Available-for-sale securities	849	1,134	1,073	1,194	-	-	4,250	83,406
Held-to-maturity securities	12	250	929	4,388	3,590	-	9,169	-
Loan portfolio	14,465	1,051	20	34	2	-	15,572	-
<b>Interest-bearing assets</b>	<b>632,032</b>	<b>308,066</b>	<b>682,255</b>	<b>515,762</b>	<b>197,568</b>	<b>101,935</b>	<b>2,437,618</b>	
<b>Liabilities</b>								
Placements by banks and other financial institutions	830	-	-	-	-	-	830	63,171
Placements by Fiscal Reserves with interest payable at market-based rates <sup>1</sup>	3	-	-	-	-	-	3	-
Placements by HKSAR Government funds and statutory bodies with interest payable at market-based rates <sup>1</sup>	1,970	-	-	-	-	-	1,970	-
Exchange Fund Bills and Notes issued	167,583	323,692	206,049	37,204	11,274	6,144	751,946	-
Bank loans	8,778	-	-	-	-	-	8,778	-
Other debt securities issued	8,168	10,010	4,002	8,040	3,050	-	33,270	-
<b>Interest-bearing liabilities</b>	<b>187,332</b>	<b>333,702</b>	<b>210,051</b>	<b>45,244</b>	<b>14,324</b>	<b>6,144</b>	<b>796,797</b>	
<b>Net interest-bearing assets/(liabilities)</b>	<b>444,700</b>	<b>(25,636)</b>	<b>472,204</b>	<b>470,518</b>	<b>183,244</b>	<b>95,791</b>	<b>1,640,821</b>	
<b>Interest rate derivatives (net position, notional amounts)</b>	<b>44,030</b>	<b>(49,894)</b>	<b>(15,411)</b>	<b>1,372</b>	<b>12,290</b>	<b>6,000</b>	<b>(1,613)</b>	
<b>Interest rate sensitivity gap</b>	<b>488,730</b>	<b>(75,530)</b>	<b>456,793</b>	<b>471,890</b>	<b>195,534</b>	<b>101,791</b>	<b>1,639,208</b>	

<sup>1</sup> Placements by Fiscal Reserves, HKSAR Government funds and statutory bodies with interest payable at a fixed rate determined annually are excluded because their interest rate is not fixed directly on the basis of market interest rates (notes 23 and 24). The fixed rate is determined every January. As at 31 December 2014, such placements amounted to HK\$1,047,847 million.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund – 2015							Non- interest- bearing financial instruments
	Repricing period of interest-bearing financial instruments							
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years	Total	
<b>Assets</b>								
Cash and money at call	121,368	-	-	-	-	-	121,368	66,467
Placements with banks and other financial institutions	98,837	1,891	1,953	-	-	-	102,681	-
Financial assets designated at fair value	615,829	470,605	425,748	625,251	194,364	122,485	2,454,282	548,338
<b>Interest-bearing assets</b>	<b>836,034</b>	<b>472,496</b>	<b>427,701</b>	<b>625,251</b>	<b>194,364</b>	<b>122,485</b>	<b>2,678,331</b>	
<b>Liabilities</b>								
Placements by banks and other financial institutions	6,243	-	-	-	-	-	6,243	60,664
Placements by Fiscal Reserves with interest payable at market-based rates <sup>1</sup>	4	-	-	-	-	-	4	-
Placements by HKSAR Government funds and statutory bodies with interest payable at market-based rates <sup>1</sup>	65	-	-	-	-	-	65	-
Exchange Fund Bills and Notes issued	185,864	407,366	189,857	28,511	11,172	5,022	827,792	-
<b>Interest-bearing liabilities</b>	<b>192,176</b>	<b>407,366</b>	<b>189,857</b>	<b>28,511</b>	<b>11,172</b>	<b>5,022</b>	<b>834,104</b>	
<b>Net interest-bearing assets/(liabilities)</b>	<b>643,858</b>	<b>65,130</b>	<b>237,844</b>	<b>596,740</b>	<b>183,192</b>	<b>117,463</b>	<b>1,844,227</b>	
<b>Interest rate derivatives (net position, notional amounts)</b>	<b>15,500</b>	<b>(18,253)</b>	<b>-</b>	<b>(11,500)</b>	<b>9,453</b>	<b>4,800</b>	<b>-</b>	
<b>Interest rate sensitivity gap</b>	<b>659,358</b>	<b>46,877</b>	<b>237,844</b>	<b>585,240</b>	<b>192,645</b>	<b>122,263</b>	<b>1,844,227</b>	

<sup>1</sup> Placements by Fiscal Reserves, HKSAR Government funds and statutory bodies with interest payable at a fixed rate determined annually are excluded because their interest rate is not fixed directly on the basis of market interest rates (notes 23 and 24). The fixed rate is determined every January. As at 31 December 2015, such placements amounted to HK\$1,114,325 million.



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund – 2014							Total	Non-interest-bearing financial instruments
	Repricing period of interest-bearing financial instruments								
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years			
<b>Assets</b>									
Cash and money at call	131,534	-	-	-	-	-	131,534	63,994	
Placements with banks and other financial institutions	119,305	775	-	-	-	-	120,080	-	
Financial assets designated at fair value	356,253	297,526	678,440	510,113	193,952	101,935	2,138,219	581,154	
<b>Interest-bearing assets</b>	<b>607,092</b>	<b>298,301</b>	<b>678,440</b>	<b>510,113</b>	<b>193,952</b>	<b>101,935</b>	<b>2,389,833</b>		
<b>Liabilities</b>									
Placements by banks and other financial institutions	830	-	-	-	-	-	830	63,171	
Placements by Fiscal Reserves with interest payable at market-based rates <sup>1</sup>	3	-	-	-	-	-	3	-	
Placements by HKSAR Government funds and statutory bodies with interest payable at market-based rates <sup>1</sup>	1,970	-	-	-	-	-	1,970	-	
Exchange Fund Bills and Notes issued	168,083	323,692	206,049	37,204	11,274	6,144	752,446	-	
<b>Interest-bearing liabilities</b>	<b>170,886</b>	<b>323,692</b>	<b>206,049</b>	<b>37,204</b>	<b>11,274</b>	<b>6,144</b>	<b>755,249</b>		
<b>Net interest-bearing assets/(liabilities)</b>	<b>436,206</b>	<b>(25,391)</b>	<b>472,391</b>	<b>472,909</b>	<b>182,678</b>	<b>95,791</b>	<b>1,634,584</b>		
<b>Interest rate derivatives (net position, notional amounts)</b>	<b>39,162</b>	<b>(37,775)</b>	<b>(19,387)</b>	<b>2,400</b>	<b>9,600</b>	<b>6,000</b>	<b>-</b>		
<b>Interest rate sensitivity gap</b>	<b>475,368</b>	<b>(63,166)</b>	<b>453,004</b>	<b>475,309</b>	<b>192,278</b>	<b>101,791</b>	<b>1,634,584</b>		

<sup>1</sup> Placements by Fiscal Reserves, HKSAR Government funds and statutory bodies with interest payable at a fixed rate determined annually are excluded because their interest rate is not fixed directly on the basis of market interest rates (notes 23 and 24). The fixed rate is determined every January. As at 31 December 2014, such placements amounted to HK\$1,047,847 million.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

### (b) Currency risk

The currency exposure of the Group is summarised below:

	<b>Group</b>			
	2015		2014	
	Assets (in HK\$ billion)	Liabilities (in HK\$ billion)	Assets (in HK\$ billion)	Liabilities (in HK\$ billion)
Hong Kong dollar	258.9	2,503.7	263.6	2,157.1
US dollar	2,813.9	403.2	2,405.7	382.1
Others <sup>1</sup>	3,072.8	2,906.9	2,669.3	2,539.2
	458.5	25.1	573.4	24.9
<b>TOTAL</b>	<b>3,531.3</b>	<b>2,932.0</b>	3,242.7	2,564.1

	<b>Fund</b>			
	2015		2014	
	Assets (in HK\$ billion)	Liabilities (in HK\$ billion)	Assets (in HK\$ billion)	Liabilities (in HK\$ billion)
Hong Kong dollar	222.9	2,475.2	228.9	2,133.7
US dollar	2,767.6	401.8	2,367.2	377.5
Others <sup>1</sup>	2,990.5	2,877.0	2,596.1	2,511.2
	432.4	1.0	552.9	2.3
<b>TOTAL</b>	<b>3,422.9</b>	<b>2,878.0</b>	3,149.0	2,513.5

<sup>1</sup> Other currencies included mainly Australian dollar, Canadian dollar, euro, renminbi, pound sterling and Japanese yen.

### (c) Equity price risk

As at 31 December 2015 and 2014, the majority of equity investments were reported as “financial assets designated at fair value” as shown in note 9.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.4.4 Sensitivity analysis

The Value-at-Risk positions of the Fund at 31 December and during the year, based on a 95% confidence level and one-month time horizon, were as follows:

	Fund	
	2015	2014
<b>Value-at-Risk</b>		
At 31 December <sup>1</sup>	<b>30,222</b>	25,231
During the year		
Average	<b>33,136</b>	22,488
Maximum	<b>46,167</b>	27,265
Minimum	<b>23,906</b>	16,674

<sup>1</sup> The amount represented 0.9% of the Fund's investments which were subject to VaR measurement as at 31 December 2015 (2014: 0.8%).

## 36.5 Liquidity risk

Liquidity risk refers to the risk that the Group may not have sufficient funds available to meet its liabilities as they fall due. In addition, the Group may not be able to liquidate its financial assets at a price close to fair value within a short period of time.

### 36.5.1 Management of liquidity risk

To ensure sufficient liquidity to meet liabilities and the ability to raise funds to meet exceptional needs, the Group invests primarily in liquid financial markets and instruments that are readily saleable to meet liquidity needs. There are internal investment restrictions to prevent undue concentrations in individual debt securities issues, debt securities issuers, and groups of closely related debt securities issuers. Such restrictions are derived based on various factors such as the nature or maturity of the securities. There are also limitations on the maximum proportion of assets that can be placed in fixed term deposits and less liquid assets, and requirements regarding the ability to convert foreign currency assets into cash. All these restrictions and limits are designed to promote the liquidity of assets and consequently minimise the liquidity risk. The liquidity risk for the Exchange Fund investment is monitored on an aggregate basis through appropriate portfolio mix with sufficient liquid assets to offset investments of less liquid assets. Compliance with these limits is monitored by the Risk and Compliance Department and any breaches are reported to the ISC and the EFAC and are promptly followed up.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.5.2 Exposure to liquidity risk

The remaining contractual maturities at the balance sheet date of major financial liabilities, commitments and derivative financial liabilities, which are based on contractual undiscounted cash flows and the earliest date on which the Group can be required to pay, are shown below:

	Group – 2015						Total
	Remaining maturity						
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years	
<b>Non-derivative cash outflows</b>							
Certificates of Indebtedness	357,863	-	-	-	-	-	357,863
Government-issued currency notes and coins in circulation	11,335	-	-	-	-	-	11,335
Balance of the banking system	391,343	-	-	-	-	-	391,343
Placements by banks and other financial institutions	6,243	-	60,664	-	-	-	66,907
Placements by Fiscal Reserves	833,548	-	-	-	-	-	833,548
Placements by HKSAR Government funds and statutory bodies	157,556	-	6,050	82,240	35,000	-	280,846
Exchange Fund Bills and Notes issued	185,863	407,541	190,405	29,893	11,719	5,019	830,440
Bank loans	77	-	445	9,477	612	3,163	13,774
Other debt securities issued	4,151	4,266	9,279	13,610	2,463	1,615	35,384
Other liabilities	112,375	404	9	252	135	-	113,175
Loan commitments, guarantees and other credit related commitments	356,060	-	-	7	-	-	356,067
<b>TOTAL</b>	<b>2,416,414</b>	<b>412,211</b>	<b>266,852</b>	<b>135,479</b>	<b>49,929</b>	<b>9,797</b>	<b>3,290,682</b>
<b>Derivative cash (inflows)/outflows</b>							
Derivative financial instruments settled:							
- on net basis	249	18	(30)	4	49	21	311
- on gross basis							
Total outflows	24,623	38,589	13,735	5,097	758	-	82,802
Total inflows	(24,230)	(38,109)	(13,701)	(3,741)	(665)	-	(80,446)
<b>TOTAL</b>	<b>642</b>	<b>498</b>	<b>4</b>	<b>1,360</b>	<b>142</b>	<b>21</b>	<b>2,667</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Group – 2014						Total
	Remaining maturity						
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years	
<b>Non-derivative cash outflows</b>							
Certificates of Indebtedness	340,184	-	-	-	-	-	340,184
Government-issued currency notes and coins in circulation	11,028	-	-	-	-	-	11,028
Balance of the banking system	239,183	-	-	-	-	-	239,183
Placements by banks and other financial institutions	830	-	63,171	-	-	-	64,001
Placements by Fiscal Reserves	788,681	-	-	-	-	-	788,681
Placements by HKSAR Government funds and statutory bodies	131,349	15,000	20,000	67,650	27,140	-	261,139
Exchange Fund Bills and Notes issued	167,581	323,895	206,734	39,100	12,342	6,340	755,992
Bank loans	99	-	294	9,669	-	-	10,062
Other debt securities issued	2,331	3,307	10,913	14,975	3,114	-	34,640
Other liabilities	58,500	377	86	-	257	-	59,220
Loan commitments and other credit related commitments	314,061	-	-	-	-	-	314,061
<b>TOTAL</b>	<b>2,053,827</b>	<b>342,579</b>	<b>301,198</b>	<b>131,394</b>	<b>42,853</b>	<b>6,340</b>	<b>2,878,191</b>
<b>Derivative cash (inflows)/outflows</b>							
Derivative financial instruments settled:							
- on net basis	305	98	895	81	162	49	1,590
- on gross basis							
Total outflows	25,498	38,236	7,391	6,706	873	-	78,704
Total inflows	(24,311)	(37,114)	(7,303)	(5,722)	(878)	-	(75,328)
<b>TOTAL</b>	<b>1,492</b>	<b>1,220</b>	<b>983</b>	<b>1,065</b>	<b>157</b>	<b>49</b>	<b>4,966</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund – 2015							Total
	Remaining maturity						Over 10 years	
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years			
<b>Non-derivative cash outflows</b>								
Certificates of Indebtedness	357,863	-	-	-	-	-	357,863	
Government-issued currency notes and coins in circulation	11,335	-	-	-	-	-	11,335	
Balance of the banking system	391,343	-	-	-	-	-	391,343	
Placements by banks and other financial institutions	6,243	-	60,664	-	-	-	66,907	
Placements by Fiscal Reserves	833,548	-	-	-	-	-	833,548	
Placements by HKSAR Government funds and statutory bodies	157,556	-	6,050	82,240	35,000	-	280,846	
Exchange Fund Bills and Notes issued	185,863	407,541	190,405	29,893	11,719	5,019	830,440	
Other liabilities	106,669	360	8	-	-	-	107,037	
Loan commitments and other credit related commitments	262,968	-	-	7	-	-	262,975	
<b>TOTAL</b>	<b>2,313,388</b>	<b>407,901</b>	<b>257,127</b>	<b>112,140</b>	<b>46,719</b>	<b>5,019</b>	<b>3,142,294</b>	
<b>Derivative cash (inflows)/outflows</b>								
Derivative financial instruments settled:								
– on net basis	248	18	(20)	2	49	21	318	
– on gross basis								
Total outflows	21,687	34,461	11,841	-	-	-	67,989	
Total inflows	(21,369)	(34,150)	(11,764)	-	-	-	(67,283)	
<b>TOTAL</b>	<b>566</b>	<b>329</b>	<b>57</b>	<b>2</b>	<b>49</b>	<b>21</b>	<b>1,024</b>	

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund – 2014							Total
	Remaining maturity							
	1 month or less	3 months or less but over 1 month	1 year or less but over 3 months	5 years or less but over 1 year	10 years or less but over 5 years	Over 10 years		
<b>Non-derivative cash outflows</b>								
Certificates of Indebtedness	340,184	-	-	-	-	-	-	340,184
Government-issued currency notes and coins in circulation	11,028	-	-	-	-	-	-	11,028
Balance of the banking system	239,183	-	-	-	-	-	-	239,183
Placements by banks and other financial institutions	830	-	63,171	-	-	-	-	64,001
Placements by Fiscal Reserves	788,681	-	-	-	-	-	-	788,681
Placements by HKSAR Government funds and statutory bodies	131,349	15,000	20,000	67,650	27,140	-	-	261,139
Exchange Fund Bills and Notes issued	168,081	323,895	206,734	39,100	12,342	6,340	-	756,492
Other liabilities	52,570	377	86	-	-	-	-	53,033
Loan commitments and other credit related commitments	263,113	-	-	-	-	-	-	263,113
<b>TOTAL</b>	<b>1,995,019</b>	<b>339,272</b>	<b>289,991</b>	<b>106,750</b>	<b>39,482</b>	<b>6,340</b>	<b>-</b>	<b>2,776,854</b>
<b>Derivative cash (inflows)/outflows</b>								
Derivative financial instruments settled:								
- on net basis	305	97	904	71	160	49	-	1,586
- on gross basis								
Total outflows	23,636	34,546	414	-	-	-	-	58,596
Total inflows	(22,531)	(33,591)	(406)	-	-	-	-	(56,528)
<b>TOTAL</b>	<b>1,410</b>	<b>1,052</b>	<b>912</b>	<b>71</b>	<b>160</b>	<b>49</b>	<b>-</b>	<b>3,654</b>

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 36.6 Insurance risk

The Group provides (i) mortgage insurance cover to authorized institutions in respect of mortgage loans originated by such authorized institutions and secured on residential properties in Hong Kong; (ii) insurance cover to authorized institutions in respect of reverse mortgage loans originated by such authorized institutions to elderly people; (iii) financial guarantee cover to authorized institutions in respect of loans originated by such authorized institutions to small and medium sized enterprises (SMEs) in Hong Kong. The Group faces insurance risk of the possibility of the insured event occurring and the uncertainty of the amount of the resulting claim.

Under the Mortgage Insurance Programme, the Group, through the HKMC, offers mortgage insurance that covers approved sellers for credit losses of up to 30% of the value of properties financed under mortgage loans with loan-to-value ratio 90% or below at origination. The Group reinsures the exposure with approved reinsurers. As at 31 December 2015, the total risk-in-force was HK\$13.4 billion (2014: HK\$13.1 billion), of which HK\$11.3 billion (2014: HK\$11.0 billion) was retained by the Group after reinsurance. The Group also provides financial guarantee cover to authorized institutions up to 50% to 70% of the banking facilities granted to SMEs in Hong Kong and insurance cover to authorized institutions in respect of reverse mortgage loans originated by such authorized institutions and secured on residential properties. As at 31 December 2015, the total risk-in-force was HK\$3.0 billion (2014: HK\$2.1 billion).

For a portfolio of insurance contracts where the theory of probability is applied to pricing and provisioning, the principal risk that the Group faces under its insurance contracts is that the actual claims exceed the carrying amount of the insurance liabilities. This could occur because the frequency or severity of claims is greater than estimated. Insurance events are random and the actual number and amount of claims and benefits will vary from year to year from the estimate established using statistical techniques.

Experience shows that the larger the portfolio of similar insurance contracts, the smaller the relative variability about the expected outcome will be. In addition, a more diversified portfolio is less likely to be affected across the board by a change in any subset of the portfolio. The Group has developed a business strategy to diversify the type of insurance risks accepted and within each of the key categories to achieve a sufficiently large population of risks to reduce the variability of the expected outcome.

The frequency and severity of claims can be affected by several factors. The most significant are a downturn in the economy, a slump in local property market and a low mortality rate of borrowers. Economic downturn, which may cause a rise in defaulted payment, affects the frequency of claims and collateral value. A drop in property prices, where the collateral values fall below the outstanding balance of the mortgage loans, will increase the severity of claims. Low mortality rate of borrowers means longer payout period and larger loan balance over time. This will affect the frequency and severity of claims as there is a risk of the property value being insufficient to cover the outstanding loan balance in the future.



# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

The Group manages these risks by adopting a set of prudent insurance eligibility criteria. To ensure sufficient provision is set aside for meeting future claim payments, the Group calculates technical reserves on prudent liability valuation assumptions and the methods prescribed in the regulatory guidelines. The Group also takes out quota-share reinsurance from its approved mortgage reinsurers and excess-of-loss reinsurance arrangements in an effort to limit its risk exposure. The reinsurers are selected according to prudent criteria and their credit ratings are reviewed regularly. For financial guarantee cover provided to authorized institutions, the Group relies on the lenders' prudent credit assessment on the borrowers to mitigate default risk and any loss in the loan facility will be shared proportionately between the Group and the lender on a *pari passu* basis to minimise moral hazards. The mortality assumptions of reverse mortgages are also reviewed on a regular basis, to assess the risk of larger deviation between the actual and expected operating results.

## **36.7 Operational risk**

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Operational risk is inherent in all aspects of the Group's operations covering all business segments.

The Group's objective is to cost-effectively manage operational risk to prevent financial losses or damage to the Group's reputation.

The primary responsibility for the development and implementation of controls to address operational risk rests with line management, with oversight by an internal high-level Risk Committee. The Committee is chaired by the Chief Executive of the HKMA with the three Deputy Chief Executives as members. The Risk Committee provides direction and guidance for line management in managing operational risk.

Operational risk management is supported by a formal risk assessment process. This is conducted annually and supplemented with quarterly updates. It requires each division to assess and rank the potential impact and likelihood of occurrence of financial and operational risks. It also requires divisions to review the procedures and controls in place for addressing the identified risks. This risk and control self-assessment is reviewed by Internal Audit to ensure consistency and reasonableness before submission to the Risk Committee, which has the responsibility for ensuring that the identified risks are properly addressed. Results of this risk assessment also form the basis for the development of an annual Internal Audit work plan. Internal Audit will audit the risk areas at various frequencies depending on the levels of risks and the results of past audits. It reports its findings regularly to the EFAC Audit Sub-Committee and the Chief Executive of the HKMA and follows up on outstanding issues to ensure that they are resolved in a proper manner.

Operational risk is also inherent in the investment activities and processes of the Reserves Management Department. To enhance its operational risk oversight, the Risk and Compliance Department formalised its operational risk management framework for the Reserves Management Department. The key elements of the framework include identification and monitoring of key risk indicators; reporting to the senior management of the HKMA on the operational risk profile of the Reserves Management Department; and handling of operational risk incidents.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 37 FAIR VALUE MEASUREMENT OF FINANCIAL INSTRUMENTS

### 37.1 Fair value of financial instruments measured at fair value on a recurring basis

#### 37.1.1 Fair value hierarchy

The carrying values of financial instruments measured at fair value at the balance sheet date across the three levels of the fair value hierarchy are shown below:

	Group – 2015			Total
	Level 1	Level 2	Level 3	
<b>Assets</b>				
Financial assets designated at fair value				
Treasury bills and commercial paper	474,488	483,517	–	958,005
Certificates of deposit	–	56,357	–	56,357
Other debt securities	1,390,804	56,846	11,281	1,458,931
Equity securities	456,636	49,405	36,068	542,109
	2,321,928	646,125	47,349	3,015,402
Available-for-sale securities				
Debt securities	3,690	2,035	–	5,725
Equity securities	913	–	–	913
Investment funds	–	–	97,344	97,344
	4,603	2,035	97,344	103,982
Derivative financial instruments	534	5,297	–	5,831
	2,327,065	653,457	144,693	3,125,215
<b>Liabilities</b>				
Exchange Fund Bills and Notes issued	–	827,792	–	827,792
Derivative financial instruments	248	3,008	–	3,256
Other debt securities issued, designated at fair value	–	343	–	343
	248	831,143	–	831,391

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Group – 2014			Total
	Level 1	Level 2	Level 3	
<b>Assets</b>				
Financial assets designated at fair value				
Treasury bills and commercial paper	278,753	440,413	–	719,166
Certificates of deposit	–	59,648	–	59,648
Other debt securities	1,327,592	39,910	10,568	1,378,070
Equity securities	493,768	53,437	27,126	574,331
	2,100,113	593,408	37,694	2,731,215
Available-for-sale securities				
Debt securities	2,524	1,726	–	4,250
Equity securities	984	–	–	984
Investment funds	–	–	81,929	81,929
	3,508	1,726	81,929	87,163
Derivative financial instruments	961	6,466	127	7,554
	2,104,582	601,600	119,750	2,825,932
<b>Liabilities</b>				
Exchange Fund Bills and Notes issued	–	751,946	–	751,946
Derivative financial instruments	305	5,371	–	5,676
Other debt securities issued, designated at fair value	–	336	–	336
	305	757,653	–	757,958

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

	Fund – 2015			
	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Financial assets designated at fair value				
Treasury bills and commercial paper	474,488	483,517	–	958,005
Certificates of deposit	–	56,357	–	56,357
Other debt securities	1,390,804	56,833	–	1,447,637
Equity securities	456,636	49,405	34,580	540,621
	2,321,928	646,112	34,580	3,002,620
Derivative financial instruments	534	4,823	–	5,357
	2,322,462	650,935	34,580	3,007,977
<b>Liabilities</b>				
Exchange Fund Bills and Notes issued	–	827,792	–	827,792
Derivative financial instruments	248	854	–	1,102
	248	828,646	–	828,894

	Fund – 2014			
	Level 1	Level 2	Level 3	Total
<b>Assets</b>				
Financial assets designated at fair value				
Treasury bills and commercial paper	278,753	440,413	–	719,166
Certificates of deposit	–	59,648	–	59,648
Other debt securities	1,327,592	39,854	–	1,367,446
Equity securities	493,768	53,437	25,908	573,113
	2,100,113	593,352	25,908	2,719,373
Derivative financial instruments	961	5,909	–	6,870
	2,101,074	599,261	25,908	2,726,243
<b>Liabilities</b>				
Exchange Fund Bills and Notes issued	–	752,446	–	752,446
Derivative financial instruments	305	3,280	–	3,585
	305	755,726	–	756,031

The Group's policy is to recognise transfers between levels of fair value hierarchy as at the end of the reporting period in which they occur. During the year, there were no transfers of financial instruments between Level 1 and Level 2 of the fair value hierarchy.

## Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

An analysis of the movement between opening and closing balances of Level 3 assets, measured at fair value using a valuation technique with significant unobservable inputs, is shown below:

	Group					
	Designated at fair value		Available-for-sale		Derivatives	
	2015	2014	2015	2014	2015	2014
At 1 January	<b>37,694</b>	34,115	<b>81,929</b>	61,819	<b>127</b>	677
Net gains/(losses) recognised in the income and expenditure account	<b>(1,899)</b>	432	-	-	<b>(127)</b>	(550)
Net losses recognised in other comprehensive income	-	-	<b>(3,811)</b>	(1,123)	-	-
Purchases	<b>20,548</b>	13,577	<b>28,708</b>	27,467	-	-
Sales	<b>(9,445)</b>	(10,223)	<b>(9,482)</b>	(6,234)	-	-
Transfers into Level 3	<b>1,062</b>	664	-	-	-	-
Transfers out of Level 3	<b>(611)</b>	(871)	-	-	-	-
At 31 December	<b>47,349</b>	37,694	<b>97,344</b>	81,929	-	127
Net gains/(losses) recognised in the income and expenditure account relating to those assets held at the balance sheet date	<b>(1,724)</b>	117	-	-	-	(550)

	Fund			
	Designated at fair value		Available-for-sale	
	2015	2014	2015	2014
At 1 January	<b>25,908</b>	21,879	-	-
Net gains/(losses) recognised in the income and expenditure account	<b>(481)</b>	1,264	-	-
Purchases	<b>16,397</b>	8,774	-	-
Sales	<b>(7,695)</b>	(5,727)	-	-
Transfers into Level 3	<b>1,062</b>	589	-	-
Transfers out of Level 3	<b>(611)</b>	(871)	-	-
At 31 December	<b>34,580</b>	25,908	-	-
Net gains/(losses) recognised in the income and expenditure account relating to those assets held at the balance sheet date	<b>(306)</b>	953	-	-

During the year, certain financial instruments were transferred between Level 2 and Level 3 of the fair value hierarchy reflecting changes in transparency of observable market data for these instruments.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 37.1.2 Valuation techniques and key inputs

The fair value of financial instruments classified under Level 1 is based on quoted market prices in active markets for identical assets or liabilities at the balance sheet date.

In the absence of quoted market prices in active markets, the fair value of financial instruments classified under Level 2 is estimated using present value or other valuation techniques, using inputs based on market conditions existing at the balance sheet date. Specific valuation techniques and key inputs used to value these financial instruments include:

- i) quoted market price or broker quotes for similar instruments;
- ii) derivative financial instruments are priced using models with observable market inputs including interest rate swaps and foreign exchange contracts; and
- iii) commercial paper and debt securities are priced using discounted cash flow techniques with observable yield curves.

For investments in unlisted investment funds, certain unlisted equity securities and certain unlisted debt securities which are classified under Level 3, their fair values are estimated by making reference to valuation reports provided by investment managers. It is not practicable to quote a range of key unobservable inputs.

For certain unlisted equity securities valued by the Group, which are classified under Level 3, their fair values are derived from Comparable Company Valuation Model, which derives the valuation of an investment through the product of its earnings, earning multiples of comparable public companies and a discount factor for a lack of liquidity. Significant unobservable inputs used under this valuation method include earning multiples of similar companies and liquidity discount:

Significant unobservable inputs	Quantitative amount	
	2015	2014
Earning multiples of similar companies	5.1 – 13.8	7.6 – 14.5
Liquidity discount	20%	20%

If the prices of these investments had increased/decreased by 10%, it would have resulted in an increase/decrease in the Group's surplus for the year of HK\$4,735 million (2014: HK\$3,782 million) and in other comprehensive income of HK\$9,734 million (2014: HK\$8,193 million).

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 37.2 Fair value of debt securities not measured at fair value on a recurring basis

The fair values of held-to-maturity securities and other debt securities issued that were not designated at fair value are shown below:

	Note	Group – 2015			
		Carrying value	Fair value		Total
			Level 1	Level 2	
<b>Financial assets</b>					
Held-to-maturity securities	12	10,274	10,206	300	10,506
<b>Financial liabilities</b>					
Other debt securities issued	27	33,120	–	33,335	33,335

	Note	Group – 2014			
		Carrying value	Fair value		Total
			Level 1	Level 2	
<b>Financial assets</b>					
Held-to-maturity securities	12	9,169	7,348	2,096	9,444
<b>Financial liabilities</b>					
Other debt securities issued	27	32,934	–	32,936	32,936

In the absence of quoted market prices in active markets, the fair values of debt securities classified under Level 2 are estimated using present value or other valuation techniques, using inputs based on market conditions existing at the balance sheet date. Specific valuation techniques and key inputs used to value these debt securities include quoted market prices for securities with similar credit, maturity and yield characteristics for held-to-maturity securities, discounted cash flow model based on a current yield curve appropriate for the remaining term to maturity for other debt securities issued.

All other financial instruments of the Group and the Fund are stated at fair value or carried at amounts not materially different from their fair values as at 31 December 2015 and 2014.

## 38 NON-ADJUSTING POST BALANCE SHEET EVENT

As directed by the Financial Secretary in December 2015, the HKMA shall manage the investment of a part of the Fiscal Reserves to be called the “Future Fund”. The Future Fund will be placed with the Exchange Fund (i.e. the Future Fund placement) for ten years from 1 January 2016 to 31 December 2025, unless otherwise directed by the Financial Secretary. The Future Fund placement comprises an initial placement, being the balance of placements by the Land Fund of HK\$219.7 billion as at 31 December 2015 (note 23), periodic top-ups from the General Revenue Account which the Financial Secretary may decide once each year, and interest<sup>1</sup> thereon. The Future Fund placement, together with the accrued interest, will be released to the Land Fund and the General Revenue Account upon completion of this arrangement.

<sup>1</sup> Such interest includes (a) interest arising from that part of the Future Fund placement linked with the Investment Portfolio of the Exchange Fund, calculated at the fixed rate determined annually for placements by Fiscal Reserves (note 23); and (b) interest arising from that part of the Future Fund placement linked with the Long-Term Growth Portfolio, calculated based on a formula linked to the current year time-weighted rate of the return of the Long-Term Growth Portfolio. The accrued interest on the Future Fund placement will be rolled over and compounded on an annual basis.

# Exchange Fund – Notes to the Financial Statements (continued)

(Amounts expressed in millions of Hong Kong dollars, unless otherwise stated.)

## 39 POSSIBLE IMPACT OF AMENDMENTS, NEW STANDARDS AND INTERPRETATIONS ISSUED BUT NOT YET EFFECTIVE FOR THE YEAR ENDED 31 DECEMBER 2015

Up to the date of issue of the financial statements, the HKICPA has issued a number of amendments and new standards which are not yet effective for the year ended 31 December 2015 and which have not been early adopted in the financial statements. The Group is in the process of making an assessment of what the impact of these amendments and new standards is expected to be in the period of initial adoption. So far it has concluded that the adoption of them is unlikely to have a significant impact on the Group's results of operations and financial position, except the following, which may have an impact on the classification and measurement of the Group's financial instruments:

	<b>Effective for accounting periods beginning on or after</b>
HKFRS 9, Financial Instruments	1 January 2018

### **HKFRS 9, Financial Instruments**

HKFRS 9 addresses the classification, measurement and recognition of financial assets and financial liabilities. It replaces the guidance in HKAS 39 that relates to the classification and measurement of financial instruments. HKFRS 9 retains but simplifies the mixed measurement model and establishes three primary measurement categories for financial assets: amortised cost, fair value through other comprehensive income and fair value through profit or loss. The basis of classification depends on the entity's business model and contractual cash flow characteristics of the financial assets. Investment in equity instruments are required to be measured at fair value through profit or loss with the irrevocable option at inception to present changes in fair value in other comprehensive income. Any such changes in fair value cannot subsequently be transferred to profit or loss.

HKFRS 9 also introduces a new expected credit loss model that replaces the incurred loss impairment model used in HKAS 39. For financial liabilities there are no changes to classification and measurement except that, in respect of liabilities designated at fair value through profit or loss, any changes in fair value due to a change in own credit risk should be recognised in other comprehensive income. In addition, the hedge accounting framework has been refined, creating a stronger link between it and risk management practices and permitting the application of hedge accounting to a greater variety of hedging instruments and risks.

## 40 APPROVAL OF FINANCIAL STATEMENTS

The financial statements were approved by the Financial Secretary on the advice of the Exchange Fund Advisory Committee on 7 April 2016.





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# Annex Authorized Institutions and Local Representative Offices

at 31 December 2015

## LICENSED BANKS

### *Incorporated in Hong Kong*

Bank of China (Hong Kong) Limited	Chong Hing Bank Limited	Nanyang Commercial Bank, Limited
BANK OF COMMUNICATIONS (HONG KONG) LIMITED# (formerly known as BOCOM Hong Kong Limited)	CITIBANK (HONG KONG) LIMITED	PUBLIC BANK (HONG KONG) LIMITED
Bank of East Asia, Limited (The)	Dah Sing Bank Limited	Shanghai Commercial Bank Limited
China CITIC Bank International Limited	DBS BANK (HONG KONG) LIMITED	Standard Chartered Bank (Hong Kong) Limited
China Construction Bank (Asia) Corporation Limited	FUBON BANK (HONG KONG) LIMITED	Tai Sang Bank Limited
Chiyu Banking Corporation Limited	Hang Seng Bank, Limited	Tai Yau Bank, Limited
	Hongkong & Shanghai Banking Corporation Limited (The)	OCBC Wing Hang Bank Limited
	Industrial and Commercial Bank of China (Asia) Limited	Wing Lung Bank Limited

### *Incorporated outside Hong Kong*

ABN AMRO Bank N.V.	BANK OF SINGAPORE LIMITED	Chiba Bank, Ltd. (The)
AGRICULTURAL BANK OF CHINA LIMITED	BANK OF TAIWAN	China Construction Bank Corporation
Allahabad Bank	Bank of Tokyo-Mitsubishi UFJ, Ltd. (The)	CHINA DEVELOPMENT BANK CORPORATION
Australia and New Zealand Banking Group Limited	BANK SINOPAC	China Everbright Bank Co., Ltd
Axis Bank Limited	Barclays Bank PLC	China Merchants Bank Co., Ltd.
Banca Monte dei Paschi di Siena S.p.A.	BDO UNIBANK, INC. also known as: BDO BDO Unibank Banco De Oro Banco De Oro Unibank BDO Banco De Oro	CHINA MINSHENG BANKING CORP., LTD.
BANCO SANTANDER, S.A.		Chugoku Bank, Ltd. (The)
Bangkok Bank Public Company Limited		CIMB Bank Berhad
Bank J. Safra Sarasin AG also known as: Banque J. Safra Sarasin SA Banca J. Safra Sarasin SA Bank J. Safra Sarasin Ltd	BNP PARIBAS BNP PARIBAS SECURITIES SERVICES BNP PARIBAS WEALTH MANAGEMENT	Citibank, N.A. Commerzbank AG
Bank Julius Baer & Co. Ltd.	BSI LTD also known as: BSI AG BSI SA	Commonwealth Bank of Australia Coöperatieve Centrale Raiffeisen-Boerenleenbank B.A.
Bank of America, National Association		Coutts & Co AG also known as: Coutts & Co SA Coutts & Co Ltd
Bank of Baroda	Canadian Imperial Bank of Commerce	CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK
Bank of China Limited	CANARA BANK	Crédit Agricole (Suisse) SA
Bank of Communications Co., Ltd.	CATHAY BANK	Credit Suisse AG
Bank of India	CATHAY UNITED BANK COMPANY, LIMITED	CTBC Bank Co., Ltd
Bank of Montreal		DBS BANK LTD.
BANK OF NEW YORK MELLON (THE)	Chang Hwa Commercial Bank Ltd.	
Bank of Nova Scotia (The)		

# Addition in 2015

# Annex Authorized Institutions and Local Representative Offices

at 31 December 2015 (continued)

Deutsche Bank Aktiengesellschaft	JPMorgan Chase Bank, National Association	Shanghai Pudong Development Bank Co., Ltd.
DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main	KBC Bank N.V.	Shiga Bank, Ltd. (The)
E.Sun Commercial Bank, Ltd.	KEB Hana Bank (formerly known as Korea Exchange Bank)	Shinhan Bank
EAST WEST BANK	Land Bank of Taiwan Co., Ltd.	Shizuoka Bank, Ltd. (The)
Edmond de Rothschild (Suisse) S.A.	LGT Bank AG also known as: LGT Bank Ltd. LGT Bank SA	Skandinaviska Enskilda Banken AB Societe Generale
EFG Bank AG also known as: EFG Bank SA EFG Bank Ltd	MACQUARIE BANK LIMITED	SOCIETE GENERALE BANK & TRUST
ERSTE GROUP BANK AG	Malayan Banking Berhad	Standard Chartered Bank
Falcon Private Bank AG also known as: Falcon Private Bank Ltd. Falcon Private Bank SA	Mashreq Bank – Public Shareholding Company also known as Mashreqbank psc	State Bank of India
FAR EASTERN INTERNATIONAL BANK	MEGA INTERNATIONAL COMMERCIAL BANK CO., LTD.	State Street Bank and Trust Company
First Commercial Bank, Ltd.	MELLI BANK PLC	Sumitomo Mitsui Banking Corporation
Hachijuni Bank, Ltd. (The)	Mitsubishi UFJ Trust and Banking Corporation	Sumitomo Mitsui Trust Bank, Limited
HDFC BANK LIMITED	Mizuho Bank, Ltd.	Svenska Handelsbanken AB (publ)
HONG LEONG BANK BERHAD	National Australia Bank Limited	Ta Chong Bank, Ltd.
HSBC BANK INTERNATIONAL LIMITED	NATIONAL BANK OF ABU DHABI	TAIPEI FUBON COMMERCIAL BANK CO., LTD.
HSBC Bank plc	National Bank of Pakistan	TAISHIN INTERNATIONAL BANK CO., LTD
HSBC Bank USA, National Association	NATIXIS	Taiwan Business Bank
HSBC Private Bank (Suisse) SA	Oversea-Chinese Banking Corporation Limited	Taiwan Cooperative Bank, Ltd.
Hua Nan Commercial Bank, Ltd.	Philippine National Bank	Taiwan Shin Kong Commercial Bank Co., Ltd.
ICBC STANDARD BANK PLC (formerly known as STANDARD BANK PLC)	Pictet & Cie (Europe) S.A.	Toronto-Dominion Bank
ICICI BANK LIMITED	Portigon AG	UBS AG
Indian Overseas Bank	PT. Bank Negara Indonesia (Persero) Tbk.	UCO Bank
Industrial and Commercial Bank of China Limited	Punjab National Bank	UniCredit Bank AG
Industrial Bank Co., Ltd.	Raiffeisen Bank International AG	Union Bank of India
Industrial Bank of Korea	Royal Bank of Canada	United Overseas Bank Ltd.
Industrial Bank of Taiwan Co., Ltd.	Royal Bank of Scotland N.V. (The)	Wells Fargo Bank, National Association
ING Bank N.V.	Royal Bank of Scotland public limited company (The)	Westpac Banking Corporation
INTESA SANPAOLO SPA	Shanghai Commercial & Savings Bank, Ltd. (The)	Woori Bank
Iyo Bank, Ltd. (The)		
		<b>Deletion in 2015</b>
		HANA BANK
		LLOYDS BANK PLC
		NEWEDGE GROUP

# Annex Authorized Institutions and Local Representative Offices

at 31 December 2015 (continued)

## RESTRICTED LICENCE BANKS

### *Incorporated in Hong Kong*

ALLIED BANKING CORPORATION (HONG KONG) LIMITED	Habib Bank Zurich (Hong Kong) Limited# (formerly known as HBZ Finance Limited)	Morgan Stanley Asia International Limited
Banc of America Securities Asia Limited	J.P. MORGAN SECURITIES (ASIA PACIFIC) LIMITED	Nippon Wealth Limited#
Bank of China International Limited	KDB Asia Limited	ORIX ASIA LIMITED
Bank of Shanghai (Hong Kong) Limited	KOOKMIN BANK HONG KONG LIMITED	RBC Capital Markets (Hong Kong) Limited
Citicorp International Limited		SCOTIABANK (HONG KONG) LIMITED
Goldman Sachs Asia Pacific Company Limited#		Societe Generale Asia Limited
		UBAF (Hong Kong) Limited

### *Incorporated outside Hong Kong*

Bank of Ayudhya Public Company Limited	PT. BANK MANDIRI (PERSERO) Tbk	Thanakharn Kasikorn Thai Chamkat (Mahachon)
EUROCLEAR BANK	RBC Investor Services Bank S.A.	also known as KASIKORNBANK PUBLIC COMPANY LIMITED
MORGAN STANLEY (SWITZERLAND) AG (formerly known as BANK MORGAN STANLEY AG)	Siam Commercial Bank Public Company Limited (The)	

# Addition in 2015

# Annex Authorized Institutions and Local Representative Offices

at 31 December 2015 (continued)

## DEPOSIT-TAKING COMPANIES

### *Incorporated in Hong Kong*

BCOM Finance (Hong Kong) Limited  
BPI International Finance Limited  
Chau's Brothers Finance Company Limited  
Chong Hing Finance Limited  
Commonwealth Finance Corporation Limited  
Corporate Finance (D.T.C.) Limited  
FUBON CREDIT (HONG KONG) LIMITED  
Gunma Finance (Hong Kong) Limited  
Habib Finance International Limited

Henderson International Finance Limited  
HKCB Finance Limited  
KEB Hana Global Finance Limited (formerly known as KEB Asia Finance Limited)  
KEXIM ASIA LIMITED  
OCTOPUS CARDS LIMITED  
PUBLIC FINANCE LIMITED  
SHINHAN ASIA LIMITED  
Vietnam Finance Company Limited  
WOORI GLOBAL MARKETS ASIA LIMITED

### **Upgraded to a Restricted Licence Bank**

HBZ Finance Limited

### **Deletion in 2015**

Hung Kai Finance Company Limited  
OCBC Inchroy Credit Corporation Limited  
OCBC Wing Hang Finance Company Limited  
PrimeCredit Limited

### *Incorporated outside Hong Kong*

NIL

# Annex Authorized Institutions and Local Representative Offices

at 31 December 2015 (continued)

## LOCAL REPRESENTATIVE OFFICES

AS Expobank	Doha Bank Q.S.C.	Shinkin Central Bank
Ashikaga Bank, Ltd. (The)	Dukascopy Bank SA	Shoko Chukin Bank, Ltd. (The)
BANCA POPOLARE COMMERCIO E INDUSTRIA SPA	Fiduciary Trust Company International	Silicon Valley Bank
Banca Popolare dell'Emilia Romagna Soc. Coop. a r.l.	FIRST GULF BANK	Standard Bank of South Africa Limited (The) <sup>#</sup>
Banca Popolare di Ancona Società per azioni	Habib Bank A.G. Zurich	Swissquote Bank SA also known as: Swissquote Bank AG Swissquote Bank Inc. Swissquote Bank Ltd
Banca Popolare di Bergamo S.p.A.	HSH Nordbank AG	Union Bank of Taiwan
Banca Popolare di Sondrio Soc. Coop. a r.l.	HUA XIA BANK CO., Limited <sup>#</sup>	Unione di Banche Italiane S.p.A. (formerly known as Unione di Banche Italiane Società Cooperativa per Azioni)
BANCA POPOLARE DI VICENZA – Società cooperativa per azioni	Investec Bank Limited	Veneto Banca S.c.a.r.l.
Banca Regionale Europea S.p.A.	JAPAN POST BANK CO., LTD.	VP Bank Ltd also known as: VP Bank AG VP Bank SA
Banco di Brescia S.p.A.	JIH SUN INTERNATIONAL Bank, Ltd.	Yamaguchi Bank, Ltd. (The)
Banco Popolare- Società Cooperativa	Juroku Bank, Ltd. (The)	Yamanashi Chuo Bank, Ltd.
Banco Security	Korea Development Bank (The)	Yuanta Commercial Bank Co., Ltd
BANK OF BEIJING CO., LTD.	Manulife Bank of Canada <sup>#</sup>	
BANK OF DONGGUAN CO., LTD.	Metropolitan Bank and Trust Company	
Bank of Fukuoka, Ltd. (The)	Nanto Bank, Ltd. (The)	
Bank of Kyoto, Ltd. (The)	National Bank of Canada	
Bank of Yokohama, Ltd. (The)	Nishi-Nippon City Bank, Ltd. (The)	
Banque Cantonale de Genève	Norinchukin Bank (The)	
BANQUE DEGROOF LUXEMBOURG S.A.	Ogaki Kyoritsu Bank, Ltd. (The)	
Banque Transatlantique S.A.	Oita Bank, Ltd. (The)	
Central Bank of India	P.T. Bank Central Asia	
CHINA BOHAI BANK CO., LTD. <sup>#</sup>	P.T. Bank Rakyat Indonesia (Persero)	
CHINA GUANGFA BANK CO., LTD.	Ping An Bank Co., Ltd.	
CLEARSTREAM BANKING S.A.	Resona Bank, Limited	
Corporation Bank	Rothschild Bank AG	
Credit Industriel et Commercial	Schroder & Co Bank AG also known as: Schroder & Co Banque SA Schroder & Co Banca SA Schroder & Co Bank Ltd Schroder & Co Banco SA	

### Deletion in 2015

ANTWERPSE DIAMANTBANK NV  
also known as ANTWERP DIAMOND BANK NV

Bank Hapoalim (Switzerland) Ltd

Joint Stock Company TRASTA KOMERCBANKA

<sup>#</sup> Addition in 2015

## Table A: Major Economic Indicators

	2011	2012	2013	2014	2015
<b>I. Gross Domestic Product</b>					
Real GDP growth (%)	4.8	1.7	3.1	2.6	<b>2.4</b> <sup>(a)</sup>
Nominal GDP growth (%)	8.9	5.3	5.0	5.6	<b>6.4</b> <sup>(a)</sup>
Real growth of major expenditure components of GDP (%)					
– Private consumption expenditure	8.4	4.1	4.6	3.3	<b>4.8</b> <sup>(a)</sup>
– Government consumption expenditure	2.5	3.6	2.7	3.0	<b>3.4</b> <sup>(a)</sup>
– Gross domestic fixed capital formation of which	10.2	6.8	2.6	(0.1)	<b>(2.2)</b> <sup>(a)</sup>
– Building and construction	15.7	7.2	(4.3)	9.3	<b>2.8</b> <sup>(a)</sup>
– Machinery, equipment and computer software	12.3	10.2	11.3	(8.6)	<b>(5.8)</b> <sup>(a)</sup>
– Exports	3.9	1.9	6.2	0.9	<b>(1.5)</b> <sup>(a)</sup>
– Imports	4.6	2.9	6.6	1.0	<b>(1.8)</b> <sup>(a)</sup>
GDP at current market prices (US\$ billion)	248.5	262.6	275.7	291.2	<b>309.9</b> <sup>(a)</sup>
Per capita GDP at current market prices (US\$)	35,142	36,708	38,353	40,216	<b>42,423</b> <sup>(a)</sup>
<b>II. External Trade (HK\$ billion)</b>					
Merchandise trade <sup>(b)</sup>					
– Domestic exports of goods	89.6	100.6	92.4	89.1	<b>72.2</b> <sup>(a)</sup>
– Re-exports of goods	3,330.5	3,491.2	3,724.0	3,788.3	<b>3,707.1</b> <sup>(a)</sup>
– Imports of goods	3,848.2	4,116.4	4,394.9	4,471.8	<b>4,289.7</b> <sup>(a)</sup>
– Merchandise trade balance	(428.1)	(524.6)	(578.5)	(594.4)	<b>(510.5)</b> <sup>(a)</sup>
Services trade					
– Exports of services	941.2	1,003.0	1,058.3	1,077.9	<b>1,053.6</b> <sup>(a)</sup>
– Imports of services	438.6	455.4	467.2	481.0	<b>486.4</b> <sup>(a)</sup>
– Services trade balance	502.6	547.7	591.1	596.9	<b>567.3</b> <sup>(a)</sup>
<b>III. Fiscal Expenditure and Revenue (HK\$ million, fiscal year)</b>					
Total government expenditure <sup>(c)</sup>	364,037	377,324	433,543	405,871	<b>426,981</b> <sup>(a)</sup>
Total government revenue	437,723	442,150	455,346	478,668	<b>457,465</b> <sup>(a)</sup>
Consolidated surplus/deficit	73,686	64,825	21,803	72,797	<b>30,484</b> <sup>(a)</sup>
Reserve balance as at end of fiscal year <sup>(d)</sup>	669,088	733,914	755,717	828,514	<b>858,998</b> <sup>(a)</sup>
<b>IV. Prices (annual change, %)</b>					
Consumer Price Index (A)	5.6	3.6	5.1	5.6	<b>4.0</b>
Composite Consumer Price Index	5.3	4.1	4.3	4.4	<b>3.0</b>
Trade Unit Value Indices					
– Domestic exports	5.7	2.4	2.5	0.2	<b>(3.0)</b>
– Re-exports	8.0	3.4	1.3	2.0	<b>0.1</b>
– Imports	8.1	3.3	0.9	1.9	<b>(0.4)</b>
Property Price Indices					
– Residential flats	20.6	13.3	17.5	6.0	<b>15.6</b> <sup>(a)</sup>
– Office premises	29.3	12.3	22.5	3.2	<b>6.1</b> <sup>(a)</sup>
– Retail premises	27.3	28.5	20.5	2.8	<b>7.3</b> <sup>(a)</sup>
– Flatted factory premises	35.4	27.2	33.8	1.9	<b>8.4</b> <sup>(a)</sup>



**Table A: Major Economic Indicators** (continued)

	2011	2012	2013	2014	2015
<b>V. Labour</b>					
Labour force (annual change, %)	2.0	2.2	1.9	0.5	<b>0.9</b>
Employment (annual change, %)	2.9	2.4	1.8	0.6	<b>0.8</b>
Unemployment rate (annual average, %)	3.4	3.3	3.4	3.3	<b>3.3</b>
Underemployment rate (annual average, %)	1.7	1.5	1.5	1.5	<b>1.4</b>
Employment ('000)	3,576	3,661	3,728	3,749	<b>3,781</b>
<b>VI. Money Supply (HK\$ billion)</b>					
HK\$ money supply					
– M1	794.7	920.9	1,000.3	1,116.7	<b>1,253.4</b>
– M2 <sup>(e)</sup>	4,046.2	4,537.4	4,795.1	5,225.8	<b>5,765.6</b>
– M3 <sup>(e)</sup>	4,055.4	4,545.6	4,806.0	5,236.2	<b>5,778.8</b>
Total money supply					
– M1	1,127.3	1,377.4	1,510.9	1,708.7	<b>1,971.2</b>
– M2	8,057.5	8,950.0	10,056.4	11,011.4	<b>11,618.5</b>
– M3	8,081.1	8,970.4	10,085.2	11,048.9	<b>11,655.0</b>
<b>VII. Interest Rates (end of period, %)</b>					
Three-month interbank rate <sup>(f)</sup>	0.38	0.40	0.38	0.38	<b>0.39</b>
Savings deposit	0.01	0.01	0.01	0.01	<b>0.01</b>
One-month time deposit	0.01	0.01	0.01	0.01	<b>0.01</b>
Banks' 'Best lending rate'	5.00	5.00	5.00	5.00	<b>5.00</b>
Banks' 'Composite rate'	0.53	0.32	0.39	0.39	<b>0.26</b>
<b>VIII. Exchange Rates (end of period)</b>					
HK\$/US\$	7.766	7.751	7.754	7.756	<b>7.751</b>
Trade-weighted Effective Exchange Rate Index (Jan 2010=100)	94.9	94.2	94.8	99.0	<b>104.9</b>
<b>IX. Foreign Currency Reserve Assets (US\$ billion) <sup>(g)</sup></b>	285.4	317.4	311.2	328.5	<b>358.8</b>
<b>X. Stock Market (end of period figures)</b>					
Hang Seng Index	18,434	22,657	23,306	23,605	<b>21,914</b>
Average price/earnings ratio	9.7	10.5	11.2	10.9	<b>9.9</b>
Market capitalisation (HK\$ billion)	17,452.7	21,871.7	23,908.8	24,892.4	<b>24,425.6</b>

(a) The estimates are preliminary.

(b) Includes non-monetary gold.

(c) Includes repayment of bonds and notes issued in July 2004.

(d) Includes changes in provision for loss in investments with the Exchange Fund.

(e) Adjusted to include foreign currency swap deposits.

(f) Refers to three-month Hong Kong Dollar Interest Settlement Rates.

(g) Excludes unsettled forward transactions but includes gold.

Table B Performance Ratios of the Banking Sector <sup>(a)</sup>

	All Authorized Institutions					Retail Banks				
	2011 %	2012 %	2013 %	2014 %	2015 %	2011 %	2012 %	2013 %	2014 %	2015 %
<b>Asset Quality</b> <sup>(b)</sup>										
As % of total credit exposures <sup>(c)</sup>										
Total outstanding provisions/impairment allowances	0.42	0.39	0.35	0.38	<b>0.44</b>	0.33	0.25	0.22	0.24	<b>0.27</b>
Classified <sup>(d)</sup> exposures:										
– Gross	0.49	0.40	0.36	0.38	<b>0.50</b>	0.42	0.34	0.31	0.33	<b>0.43</b>
– Net of specific provisions/individual impairment allowances	0.28	0.24	0.22	0.23	<b>0.31</b>	0.24	0.23	0.22	0.23	<b>0.31</b>
– Net of all provisions/impairment allowances	0.07	0.01	0.00	0.00	<b>0.06</b>	0.09	0.09	0.08	0.09	<b>0.16</b>
As % of total loans <sup>(e)</sup>										
Total outstanding provisions/impairment allowances	0.63	0.60	0.55	0.55	<b>0.65</b>	0.50	0.39	0.35	0.35	<b>0.45</b>
Classified <sup>(d)</sup> loans:										
– Gross	0.69	0.58	0.54	0.52	<b>0.73</b>	0.59	0.48	0.48	0.46	<b>0.70</b>
– Net of specific provisions/individual impairment allowances	0.41	0.35	0.35	0.32	<b>0.47</b>	0.34	0.32	0.34	0.32	<b>0.50</b>
– Net of all provisions/impairment allowances	0.06	(0.02)	(0.01)	(0.03)	<b>0.08</b>	0.09	0.09	0.12	0.12	<b>0.25</b>
Overdue > 3 months and rescheduled loans <sup>(e)</sup>	0.47	0.42	0.36	0.34	<b>0.47</b>	0.49	0.39	0.33	0.29	<b>0.45</b>
<b>Profitability</b>										
Return on assets (operating profit)	0.80	0.84	1.03	0.97	<b>0.88</b>	1.11	1.18	1.30	1.19	<b>1.06</b>
Return on assets (post-tax profit)	0.72	0.74	1.05	0.81	<b>0.84</b>	1.02	1.06	1.39	0.99	<b>1.05</b>
Net interest margin	0.98	1.08	1.12	1.14	<b>1.07</b>	1.24	1.36	1.40	1.40	<b>1.32</b>
Cost-to-income ratio	55.4	54.8	49.1	48.9	<b>50.4</b>	46.6	45.8	42.4	43.4	<b>45.4</b>
Loan impairment charges to total assets	0.07	0.08	0.06	0.06	<b>0.09</b>	0.04	0.04	0.04	0.05	<b>0.08</b>
<b>Liquidity</b>										
Loan to deposit ratio (all currencies)	66.9	67.1	70.3	72.2	<b>70.1</b>	55.3	54.8	56.2	57.5	<b>56.5</b>
Loan to deposit <sup>(f)</sup> ratio (Hong Kong dollar)	84.5	79.8	82.1	83.3	<b>78.2</b>	76.2	72.3	74.8	74.6	<b>71.5</b>
						Surveyed Institutions				
						2011 %	2012 %	2013 %	2014 %	2015 %
<b>Asset Quality</b>										
Delinquency ratio of residential mortgage loans						0.01	0.02	0.02	0.03	<b>0.03</b>
Credit card receivables										
– Delinquency ratio						0.19	0.20	0.20	0.20	<b>0.25</b>
– Charge-off ratio						1.49	1.70	1.84	1.83	<b>1.82</b>
						Locally Incorporated Licensed Banks				
						2011 %	2012 %	2013 %	2014 %	2015 %
<b>Profitability</b>										
Operating profit to shareholders' funds						15.5	15.0	14.1	13.1	<b>11.5</b>
Post-tax profit to shareholders' funds						14.2	13.5	15.3	11.1	<b>11.5</b>
<b>Capital Adequacy</b>										
Equity to assets ratio <sup>(b)</sup>						7.9	8.5	8.5	8.8	<b>9.3</b>
						All Locally Incorporated Authorized Institutions				
						2011 %	2012 %	2013 %	2014 %	2015 %
<b>Capital Adequacy</b> <sup>(g)</sup>										
Common Equity Tier 1 capital ratio						N.A.	N.A.	13.2	13.7	<b>14.6</b>
Tier 1 capital ratio						12.4	13.3	13.3	13.9	<b>15.3</b>
Total capital ratio						15.8	15.7	15.9	16.8	<b>18.3</b>

(a) Figures are related to Hong Kong offices only unless otherwise stated.

(b) Figures are related to Hong Kong offices and locally incorporated AIs' overseas branches unless otherwise stated.

(c) Credit exposures include loans and advances, acceptances and bills of exchange held, investment debt securities issued by others, accrued interest, and commitments and contingent liabilities to or on behalf of non-banks.

(d) Denotes loans or exposures graded as "substandard", "doubtful" or "loss" in the HKMA's Loan Classification System.

(e) Starting from 2015, the coverage was expanded to include locally incorporated AIs' major overseas subsidiaries. Under the expanded coverage, retail banks' classified loan ratio (gross) was 0.52% at end-December 2014.

(f) Includes swap deposits.

(g) The ratios are on a consolidated basis. With effect from 1 January 2013, a revised capital adequacy framework (Basel III) was introduced for locally incorporated AIs. The capital adequacy ratios from 2013 onwards are therefore not directly comparable with those up to 2012.

## Table C Authorized Institutions: Domicile and Parentage

	2011	2012	2013	2014	2015
<b>Licensed Banks</b>					
(i) Incorporated in Hong Kong	23	22	21	21	<b>22</b>
(ii) Incorporated outside Hong Kong	129	133	135	138	<b>135</b>
<b>Total</b>	152	155	156	159	<b>157</b>
<b>Restricted Licence Banks</b>					
(i) Subsidiaries of licensed banks:					
(a) incorporated in Hong Kong	1	1	1	1	<b>1</b>
(b) incorporated outside Hong Kong	5	6	6	6	<b>6</b>
(ii) Subsidiaries or branches of foreign banks which are not licensed banks in Hong Kong	12	12	12	11	<b>11</b>
(iii) Bank related	1	1	1	1	<b>3</b>
(iv) Others	1	1	1	2	<b>3</b>
<b>Total</b>	20	21	21	21	<b>24</b>
<b>Deposit-taking Companies</b>					
(i) Subsidiaries of licensed banks:					
(a) incorporated in Hong Kong	6	6	6	6	<b>4</b>
(b) incorporated outside Hong Kong	4	3	3	3	<b>3</b>
(ii) Subsidiaries of foreign banks which are not licensed banks in Hong Kong	7	7	7	6	<b>6</b>
(iii) Bank related	2	2	2	2	<b>-</b>
(iv) Others	7	6	6	6	<b>5</b>
<b>Total</b>	26	24	24	23	<b>18</b>
<b>All Authorized Institutions</b>	198	200	201	203	<b>199</b>
<b>Local Representative Offices</b>	61	60	62	63	<b>64</b>

**Table D Authorized Institutions: Region/Economy of Beneficial Ownership**

Region/Economy	Licensed Banks					Restricted Licence Banks					Deposit-taking Companies				
	11	12	13	14	15	11	12	13	14	15	11	12	13	14	15
<b>Asia &amp; Pacific</b>															
Hong Kong	10	9	9	7	7	-	-	-	-	-	7	7	7	4	3
Australia	5	5	5	5	5	-	-	-	-	-	-	-	-	-	-
Mainland China	15	17	17	19	21	2	2	2	2	2	2	2	2	3	3
India	12	12	12	12	12	-	-	-	-	-	1	1	1	1	1
Indonesia	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-
Japan	10	10	11	11	11	1	1	1	1	2	3	2	2	1	1
Malaysia	3	3	4	4	4	-	-	-	-	-	1	1	1	1	1
Pakistan	1	1	1	1	1	-	-	-	-	1	2	2	2	2	1
Philippines	2	2	2	2	2	1	1	1	1	1	2	2	2	2	2
Singapore	5	5	5	6	6	-	-	-	-	-	-	-	-	2	-
South Korea	5	5	5	5	4	2	2	2	2	2	4	4	4	4	4
Taiwan	19	19	19	19	19	-	-	-	-	-	1	1	1	1	1
Thailand	1	1	1	1	1	3	3	3	3	3	-	-	-	-	-
Vietnam	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1
<b>Sub-Total</b>	89	90	92	93	94	10	10	10	10	12	24	23	23	22	18
<b>Europe</b>															
Austria	1	2	2	2	2	-	-	-	-	-	-	-	-	-	-
Belgium	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-
France	9	9	9	9	8	2	2	2	2	2	-	-	-	-	-
Germany	4	4	4	4	4	-	-	-	-	-	-	-	-	-	-
Italy	4	4	4	4	3	-	-	-	-	-	-	-	-	-	-
Liechtenstein	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Netherlands	4	3	3	3	3	-	-	-	-	-	-	-	-	-	-
Spain	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-
Sweden	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-
Switzerland	5	6	6	6	6	-	-	-	-	-	-	-	-	-	-
United Kingdom	11	11	11	11	10	-	-	-	-	-	1	1	1	1	-
<b>Sub-Total</b>	44	45	45	45	42	4	3	3	3	3	1	1	1	1	-
<b>Middle East</b>															
Iran	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-
United Arab Emirates	2	2	2	3	3	1	1	1	-	-	-	-	-	-	-
<b>Sub-Total</b>	3	3	3	4	4	1	1	1	-	-	-	-	-	-	-
<b>North America</b>															
Canada	5	5	5	5	5	1	3	3	3	3	-	-	-	-	-
United States	9	9	9	10	10	4	4	4	5	6	1	-	-	-	-
<b>Sub-Total</b>	14	14	14	15	15	5	7	7	8	9	1	-	-	-	-
Brazil	-	1	1	1	2	-	-	-	-	-	-	-	-	-	-
South Africa	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-
<b>Grand Total</b>	152	155	156	159	157	20	21	21	21	24	26	24	24	23	18

Table E Presence of World's Largest 500 Banks in Hong Kong

Positions at 31 December 2015	Number of Overseas Banks <sup>(b)</sup>					Licensed Banks <sup>(c)</sup>					Restricted Licence Banks <sup>(c)</sup>					Deposit-Taking Companies <sup>(c)</sup>					Local Representative Offices				
	11	12	13	14	15	11	12	13	14	15	11	12	13	14	15	11	12	13	14	15	11	12	13	14	15
<b>World Ranking <sup>(a)</sup></b>																									
1 – 20	20	20	20	20	<b>20</b>	40	39	40	39	<b>39</b>	6	6	5	5	<b>5</b>	–	–	–	–	<b>–</b>	3	2	–	–	<b>–</b>
21 – 50	26	26	26	25	<b>26</b>	21	23	24	24	<b>25</b>	3	3	3	4	<b>5</b>	2	2	2	2	<b>1</b>	5	5	4	3	<b>3</b>
51 – 100	27	24	24	26	<b>28</b>	21	22	23	25	<b>23</b>	1	1	2	2	<b>2</b>	3	3	3	4	<b>3</b>	14	3	4	5	<b>7</b>
101 – 200	40	40	43	38	<b>34</b>	23	25	24	23	<b>22</b>	–	–	3	3	<b>2</b>	4	3	2	1	<b>1</b>	14	21	22	18	<b>15</b>
201 – 500	43	48	47	52	<b>57</b>	24	25	26	28	<b>30</b>	5	5	4	3	<b>3</b>	2	3	3	4	<b>4</b>	14	17	16	19	<b>22</b>
Sub-total	156	158	160	161	<b>165</b>	129	134	137	139	<b>139</b>	15	15	17	17	<b>17</b>	11	11	10	11	<b>9</b>	50	48	46	45	<b>47</b>
Others	43	42	45	47	<b>41</b>	23	21	19	20	<b>18</b>	5	6	4	4	<b>7</b>	15	13	14	12	<b>9</b>	11	12	16	18	<b>17</b>
<b>Total</b>	199	200	205	208	<b>206</b>	152	155	156	159	<b>157</b>	20	21	21	21	<b>24</b>	26	24	24	23	<b>18</b>	61	60	62	63	<b>64</b>

(a) Top 500 banks/banking groups in the world ranked by total assets. Figures are extracted from The Banker, July 2015 issue.

(b) The sum of the number of licensed banks, restricted licence banks, deposit-taking companies and local representative offices exceeds the number of overseas banks with presence in Hong Kong due to the multiple presence of some of the overseas banks.

(c) Consist of branches and subsidiaries of overseas banks.

**Table F Balance Sheet: All Authorized Institutions and Retail Banks**

**All Authorized Institutions**

(HK\$ billion)	2011			2012			2013			2014			2015		
	HK\$	F/CY	Total	HK\$	F/CY	Total	HK\$	F/CY	Total	HK\$	F/CY	Total	HK\$	F/CY	Total
<b>Assets</b>															
Loans to customers	3,160	1,921	5,081	3,333	2,234	5,567	3,606	2,851	6,457	4,000	3,276	7,276	<b>4,153</b>	<b>3,382</b>	<b>7,535</b>
– Inside Hong Kong <sup>(a)</sup>	2,809	902	3,711	2,934	1,046	3,980	3,119	1,410	4,529	3,462	1,596	5,058	<b>3,650</b>	<b>1,604</b>	<b>5,254</b>
– Outside Hong Kong <sup>(b)</sup>	351	1,018	1,369	399	1,188	1,587	487	1,441	1,928	538	1,680	2,218	<b>503</b>	<b>1,778</b>	<b>2,281</b>
Interbank lending	351	4,120	4,471	390	3,999	4,389	424	4,372	4,795	431	4,948	5,379	<b>561</b>	<b>4,577</b>	<b>5,138</b>
– Inside Hong Kong	205	444	649	234	424	658	255	528	783	254	598	852	<b>362</b>	<b>672</b>	<b>1,034</b>
– Outside Hong Kong	146	3,676	3,822	157	3,575	3,731	169	3,843	4,012	176	4,351	4,527	<b>199</b>	<b>3,905</b>	<b>4,104</b>
Negotiable certificates of deposit (NCDs)	90	104	194	133	159	291	134	173	306	123	144	267	<b>152</b>	<b>269</b>	<b>422</b>
Negotiable debt instruments, other than NCDs	862	1,865	2,727	822	2,117	2,939	912	2,676	3,588	884	2,620	3,505	<b>962</b>	<b>2,722</b>	<b>3,684</b>
Other assets	566	704	1,270	775	897	1,672	726	1,069	1,795	850	1,165	2,015	<b>1,053</b>	<b>1,349</b>	<b>2,402</b>
<b>Total assets</b>	<b>5,029</b>	<b>8,713</b>	<b>13,742</b>	<b>5,453</b>	<b>9,406</b>	<b>14,859</b>	<b>5,801</b>	<b>11,141</b>	<b>16,941</b>	<b>6,288</b>	<b>12,154</b>	<b>18,442</b>	<b>6,881</b>	<b>12,300</b>	<b>19,180</b>
<b>Liabilities</b>															
Deposits from customers <sup>(c)</sup>	3,740	3,851	7,591	4,176	4,120	8,296	4,391	4,789	9,180	4,800	5,273	10,073	<b>5,312</b>	<b>5,437</b>	<b>10,750</b>
Interbank borrowing	547	3,479	4,026	576	3,393	3,969	612	4,103	4,715	694	4,293	4,986	<b>805</b>	<b>4,011</b>	<b>4,816</b>
– Inside Hong Kong	201	450	651	236	434	670	310	602	912	328	688	1,016	<b>455</b>	<b>743</b>	<b>1,198</b>
– Outside Hong Kong	346	3,029	3,375	340	2,959	3,299	302	3,502	3,803	365	3,605	3,971	<b>351</b>	<b>3,267</b>	<b>3,618</b>
Negotiable certificates of deposit	144	239	383	210	426	636	222	616	838	213	631	845	<b>240</b>	<b>592</b>	<b>832</b>
Other liabilities	910	831	1,741	1,033	924	1,957	1,133	1,075	2,208	1,205	1,333	2,537	<b>1,323</b>	<b>1,460</b>	<b>2,782</b>
<b>Total liabilities</b>	<b>5,341</b>	<b>8,401</b>	<b>13,742</b>	<b>5,996</b>	<b>8,863</b>	<b>14,859</b>	<b>6,357</b>	<b>10,584</b>	<b>16,941</b>	<b>6,912</b>	<b>11,530</b>	<b>18,442</b>	<b>7,680</b>	<b>11,500</b>	<b>19,180</b>

**Retail Banks**

(HK\$ billion)	2011			2012			2013			2014			2015		
	HK\$	F/CY	Total	HK\$	F/CY	Total	HK\$	F/CY	Total	HK\$	F/CY	Total	HK\$	F/CY	Total
<b>Assets</b>															
Loans to customers	2,567	784	3,351	2,724	906	3,630	2,966	1,195	4,161	3,264	1,397	4,660	<b>3,376</b>	<b>1,432</b>	<b>4,808</b>
– Inside Hong Kong <sup>(a)</sup>	2,346	462	2,808	2,477	519	2,996	2,664	750	3,414	2,939	830	3,768	<b>3,091</b>	<b>817</b>	<b>3,908</b>
– Outside Hong Kong <sup>(b)</sup>	221	322	543	248	386	634	302	445	747	325	567	892	<b>285</b>	<b>616</b>	<b>900</b>
Interbank lending	172	1,639	1,811	200	1,449	1,648	207	1,764	1,972	236	2,099	2,335	<b>303</b>	<b>1,643</b>	<b>1,946</b>
– Inside Hong Kong	123	205	329	152	186	337	148	174	322	156	257	413	<b>227</b>	<b>260</b>	<b>488</b>
– Outside Hong Kong	49	1,433	1,482	48	1,263	1,311	59	1,590	1,649	80	1,843	1,923	<b>75</b>	<b>1,383</b>	<b>1,458</b>
Negotiable certificates of deposit (NCDs)	57	47	104	90	90	180	101	112	213	96	80	177	<b>113</b>	<b>127</b>	<b>240</b>
Negotiable debt instruments, other than NCDs	620	1,314	1,934	618	1,509	2,127	709	1,791	2,500	677	1,722	2,398	<b>772</b>	<b>1,985</b>	<b>2,757</b>
Other assets	438	470	908	589	600	1,189	580	722	1,302	671	814	1,485	<b>781</b>	<b>935</b>	<b>1,716</b>
<b>Total assets</b>	<b>3,855</b>	<b>4,253</b>	<b>8,108</b>	<b>4,220</b>	<b>4,554</b>	<b>8,774</b>	<b>4,563</b>	<b>5,584</b>	<b>10,148</b>	<b>4,944</b>	<b>6,112</b>	<b>11,055</b>	<b>5,344</b>	<b>6,123</b>	<b>11,466</b>
<b>Liabilities</b>															
Deposits from customers <sup>(c)</sup>	3,368	2,692	6,059	3,768	2,854	6,622	3,967	3,432	7,398	4,374	3,734	8,108	<b>4,719</b>	<b>3,787</b>	<b>8,506</b>
Interbank borrowing	165	523	687	183	475	658	238	768	1,006	294	698	992	<b>329</b>	<b>586</b>	<b>915</b>
– Inside Hong Kong	55	246	301	59	181	240	133	364	497	150	350	500	<b>200</b>	<b>281</b>	<b>481</b>
– Outside Hong Kong	109	277	386	123	294	417	105	404	510	144	347	491	<b>130</b>	<b>304</b>	<b>434</b>
Negotiable certificates of deposit	64	99	163	45	123	168	57	175	232	64	176	239	<b>62</b>	<b>123</b>	<b>185</b>
Other liabilities	720	478	1,198	825	501	1,326	915	596	1,511	956	760	1,716	<b>1,059</b>	<b>802</b>	<b>1,860</b>
<b>Total liabilities</b>	<b>4,316</b>	<b>3,792</b>	<b>8,108</b>	<b>4,820</b>	<b>3,954</b>	<b>8,774</b>	<b>5,177</b>	<b>4,971</b>	<b>10,148</b>	<b>5,688</b>	<b>5,367</b>	<b>11,055</b>	<b>6,169</b>	<b>5,297</b>	<b>11,466</b>

(a) Defined as loans for use in Hong Kong plus trade finance.

(b) Includes "others" (i.e. unallocated).

(c) Hong Kong dollar customer deposits include swap deposits.

Figures may not add up to total because of rounding.

**Table G Major Balance Sheet Items by Region/Economy of Beneficial Ownership of Authorized Institutions**

(HK\$ billion)		Mainland China	Japan	US	Europe	Others	Total
<b>Total Assets</b>	2014	5,772	1,380	977	2,936	7,377	18,442
	<b>2015</b>	<b>6,431</b>	<b>1,341</b>	<b>1,017</b>	<b>2,736</b>	<b>7,656</b>	<b>19,180</b>
<b>Deposits from Customers</b>	2014	3,359	180	447	1,380	4,707	10,073
	<b>2015</b>	<b>3,620</b>	<b>301</b>	<b>488</b>	<b>1,402</b>	<b>4,938</b>	<b>10,750</b>
<b>Loans to Customers</b>	2014	2,366	512	248	1,121	3,030	7,276
	<b>2015</b>	<b>2,730</b>	<b>504</b>	<b>238</b>	<b>1,024</b>	<b>3,039</b>	<b>7,535</b>
<b>Loans to Customers Inside Hong Kong <sup>(a)</sup></b>	2014	1,572	289	206	720	2,271	5,058
	<b>2015</b>	<b>1,802</b>	<b>306</b>	<b>191</b>	<b>644</b>	<b>2,311</b>	<b>5,254</b>
<b>Loans to Customers Outside Hong Kong <sup>(b)</sup></b>	2014	794	223	42	401	758	2,218
	<b>2015</b>	<b>927</b>	<b>199</b>	<b>47</b>	<b>380</b>	<b>728</b>	<b>2,281</b>

(a) Defined as loans for use in Hong Kong plus trade finance.

(b) Includes "others" (i.e. unallocated).

Figures may not add up to total because of rounding.

## Table H Flow of Funds for All Authorized Institutions and Retail Banks

### All Authorized Institutions

Increase/(Decrease) in (HK\$ billion)	2014			2015		
	HK\$	F/CY	Total	HK\$	F/CY	Total
<b>Assets</b>						
Loans to customers	394	425	819	152	106	258
– Inside Hong Kong <sup>(a)</sup>	343	186	529	188	8	196
– Outside Hong Kong <sup>(b)</sup>	52	239	290	(35)	98	62
Interbank lending	7	576	583	130	(371)	(241)
– Inside Hong Kong	(1)	69	68	108	74	182
– Outside Hong Kong	8	507	515	22	(446)	(423)
All other assets	85	12	97	311	411	721
<b>Total assets</b>	<b>487</b>	<b>1,013</b>	<b>1,500</b>	<b>593</b>	<b>146</b>	<b>739</b>
<b>Liabilities</b>						
Deposits from customers <sup>(c)</sup>	409	484	893	512	165	677
Interbank borrowing	82	189	271	111	(282)	(171)
– Inside Hong Kong	18	86	104	126	56	182
– Outside Hong Kong	64	103	167	(15)	(338)	(353)
All other liabilities	63	272	336	145	88	233
<b>Total liabilities</b>	<b>555</b>	<b>945</b>	<b>1,500</b>	<b>768</b>	<b>(29)</b>	<b>739</b>
<b>Net Interbank Borrowing/(Lending)</b>	<b>75</b>	<b>(387)</b>	<b>(312)</b>	<b>(19)</b>	<b>89</b>	<b>70</b>
<b>Net Customer Lending/(Borrowing)</b>	<b>(15)</b>	<b>(59)</b>	<b>(74)</b>	<b>(360)</b>	<b>(59)</b>	<b>(418)</b>

### Retail Banks

Increase/(Decrease) in (HK\$ billion)	2014			2015		
	HK\$	F/CY	Total	HK\$	F/CY	Total
<b>Assets</b>						
Loans to customers	298	202	499	112	36	148
– Inside Hong Kong <sup>(a)</sup>	275	79	354	153	(13)	139
– Outside Hong Kong <sup>(b)</sup>	23	122	145	(41)	49	8
Interbank lending	29	335	364	67	(456)	(390)
– Inside Hong Kong	7	83	90	72	3	75
– Outside Hong Kong	21	252	273	(5)	(460)	(465)
All other assets	54	(9)	44	222	432	653
<b>Total assets</b>	<b>380</b>	<b>527</b>	<b>908</b>	<b>400</b>	<b>11</b>	<b>411</b>
<b>Liabilities</b>						
Deposits from customers <sup>(c)</sup>	408	303	710	345	53	398
Interbank borrowing	56	(71)	(15)	36	(112)	(76)
– Inside Hong Kong	17	(14)	3	50	(69)	(19)
– Outside Hong Kong	39	(57)	(18)	(14)	(43)	(58)
All other liabilities	48	164	213	101	(11)	90
<b>Total liabilities</b>	<b>512</b>	<b>396</b>	<b>908</b>	<b>481</b>	<b>(70)</b>	<b>411</b>
<b>Net Interbank Borrowing/(Lending)</b>	<b>27</b>	<b>(406)</b>	<b>(379)</b>	<b>(31)</b>	<b>344</b>	<b>313</b>
<b>Net Customer Lending/(Borrowing)</b>	<b>(110)</b>	<b>(101)</b>	<b>(211)</b>	<b>(233)</b>	<b>(17)</b>	<b>(250)</b>

(a) Defined as loans for use in Hong Kong plus trade finance.

(b) Includes "others" (i.e. unallocated).

(c) Hong Kong dollar customer deposits include swap deposits.

Figures may not add up to total because of rounding.



**Table I Loans to and Deposits from Customers by Category of Authorized Institutions**

(HK\$ billion)	Loans to Customers				Deposits from Customers <sup>(a)</sup>			
	HK\$	F/CY	Total	%	HK\$	F/CY	Total	%
<b>2011</b>								
Licensed banks	3,123	1,897	5,020	99	3,731	3,837	7,568	100
Restricted licence banks	15	19	34	1	5	12	17	–
Deposit-taking companies	21	4	26	1	4	2	6	–
<b>Total</b>	<b>3,160</b>	<b>1,921</b>	<b>5,081</b>	<b>100</b>	<b>3,740</b>	<b>3,851</b>	<b>7,591</b>	<b>100</b>
<b>2012</b>								
Licensed banks	3,290	2,213	5,504	99	4,168	4,108	8,276	100
Restricted licence banks	20	16	35	1	3	10	13	–
Deposit-taking companies	23	5	27	–	5	2	7	–
<b>Total</b>	<b>3,333</b>	<b>2,234</b>	<b>5,567</b>	<b>100</b>	<b>4,176</b>	<b>4,120</b>	<b>8,296</b>	<b>100</b>
<b>2013</b>								
Licensed banks	3,561	2,823	6,384	99	4,380	4,772	9,152	100
Restricted licence banks	21	22	43	1	5	16	21	–
Deposit-taking companies	24	5	29	–	6	2	7	–
<b>Total</b>	<b>3,606</b>	<b>2,851</b>	<b>6,457</b>	<b>100</b>	<b>4,391</b>	<b>4,789</b>	<b>9,180</b>	<b>100</b>
<b>2014</b>								
Licensed banks	3,954	3,241	7,195	99	4,790	5,249	10,039	100
Restricted licence banks	22	29	51	1	5	22	27	–
Deposit-taking companies	24	6	31	–	5	2	7	–
<b>Total</b>	<b>4,000</b>	<b>3,276</b>	<b>7,276</b>	<b>100</b>	<b>4,800</b>	<b>5,273</b>	<b>10,073</b>	<b>100</b>
<b>2015</b>								
<b>Licensed banks</b>	<b>4,118</b>	<b>3,342</b>	<b>7,460</b>	<b>99</b>	<b>5,299</b>	<b>5,420</b>	<b>10,720</b>	<b>100</b>
<b>Restricted licence banks</b>	<b>23</b>	<b>34</b>	<b>57</b>	<b>1</b>	<b>8</b>	<b>17</b>	<b>25</b>	<b>–</b>
<b>Deposit-taking companies</b>	<b>12</b>	<b>6</b>	<b>18</b>	<b>–</b>	<b>5</b>	<b>1</b>	<b>6</b>	<b>–</b>
<b>Total</b>	<b>4,153</b>	<b>3,382</b>	<b>7,535</b>	<b>100</b>	<b>5,312</b>	<b>5,437</b>	<b>10,750</b>	<b>100</b>

(a) Hong Kong dollar customer deposits include swap deposits.

The sign “–” denotes a figure of less than 0.5.

Figures may not add up to total because of rounding.

## Table J Loans to Customers inside Hong Kong by Economic Sector

### All Authorized Institutions

Sector (HK\$ billion)	2011		2012		2013		2014		2015	
	HK\$	%	HK\$	%	HK\$	%	HK\$	%	HK\$	%
Hong Kong's visible trade	351	9	383	10	550	12	543	11	<b>454</b>	<b>9</b>
Manufacturing	189	5	184	5	216	5	266	5	<b>244</b>	<b>5</b>
Transport and transport equipment	193	5	216	5	247	5	261	5	<b>275</b>	<b>5</b>
Building, construction and property development, and investment	918	25	928	23	994	22	1,060	21	<b>1,139</b>	<b>22</b>
Wholesale and retail trade	314	8	351	9	418	9	473	9	<b>444</b>	<b>8</b>
Financial concerns (other than authorized institutions)	264	7	273	7	327	7	388	8	<b>453</b>	<b>9</b>
Individuals:										
– to purchase flats in the Home Ownership Scheme, the Private Sector Participation Scheme and the Tenants Purchase Scheme	46	1	42	1	42	1	42	1	<b>41</b>	<b>1</b>
– to purchase other residential properties	805	22	873	22	909	20	988	20	<b>1,078</b>	<b>21</b>
– other purposes	292	8	333	8	390	9	450	9	<b>490</b>	<b>9</b>
Others	340	9	397	10	437	10	588	12	<b>637</b>	<b>12</b>
<b>Total</b> <sup>(a)</sup>	<b>3,711</b>	<b>100</b>	<b>3,980</b>	<b>100</b>	<b>4,529</b>	<b>100</b>	<b>5,058</b>	<b>100</b>	<b>5,254</b>	<b>100</b>

### Retail Banks

Sector (HK\$ billion)	2011		2012		2013		2014		2015	
	HK\$	%	HK\$	%	HK\$	%	HK\$	%	HK\$	%
Hong Kong's visible trade	242	9	257	9	349	10	316	8	<b>294</b>	<b>8</b>
Manufacturing	129	5	121	4	139	4	163	4	<b>160</b>	<b>4</b>
Transport and transport equipment	115	4	129	4	156	5	176	5	<b>185</b>	<b>5</b>
Building, construction and property development, and investment	719	26	734	24	786	23	829	22	<b>856</b>	<b>22</b>
Wholesale and retail trade	207	7	222	7	266	8	310	8	<b>262</b>	<b>7</b>
Financial concerns (other than authorized institutions)	113	4	118	4	169	5	203	5	<b>224</b>	<b>6</b>
Individuals:										
– to purchase flats in the Home Ownership Scheme, the Private Sector Participation Scheme and the Tenants Purchase Scheme	46	2	42	1	42	1	42	1	<b>41</b>	<b>1</b>
– to purchase other residential properties	794	28	860	29	896	26	976	26	<b>1,070</b>	<b>27</b>
– other purposes	245	9	270	9	320	9	362	10	<b>398</b>	<b>10</b>
Others	199	7	243	8	291	9	393	10	<b>416</b>	<b>11</b>
<b>Total</b> <sup>(a)</sup>	<b>2,808</b>	<b>100</b>	<b>2,996</b>	<b>100</b>	<b>3,414</b>	<b>100</b>	<b>3,768</b>	<b>100</b>	<b>3,908</b>	<b>100</b>

(a) Defined as loans for use in Hong Kong plus trade finance.

Figures may not add up to total because of rounding.

## Table K Deposits from Customers

(HK\$ billion)	All Authorized Institutions				Retail banks			
	Demand	Savings	Time	Total	Demand	Savings	Time	Total
<b>Hong Kong Dollar <sup>(a)</sup></b>								
2011	546	1,671	1,523	3,740	497	1,648	1,223	3,368
2012	639	2,011	1,526	4,176	577	1,982	1,209	3,768
2013	686	2,077	1,628	4,391	610	2,048	1,309	3,967
2014	787	2,242	1,772	4,800	700	2,206	1,468	4,374
<b>2015</b>	<b>904</b>	<b>2,490</b>	<b>1,918</b>	<b>5,312</b>	<b>803</b>	<b>2,436</b>	<b>1,480</b>	<b>4,719</b>
<b>Foreign Currency</b>								
2011	333	1,234	2,284	3,851	205	1,089	1,398	2,692
2012	456	1,380	2,284	4,120	293	1,191	1,370	2,854
2013	511	1,619	2,659	4,789	305	1,401	1,726	3,432
2014	592	1,723	2,957	5,273	349	1,514	1,871	3,734
<b>2015</b>	<b>718</b>	<b>2,005</b>	<b>2,715</b>	<b>5,437</b>	<b>396</b>	<b>1,706</b>	<b>1,685</b>	<b>3,787</b>
<b>Total</b>								
2011	879	2,905	3,807	7,591	702	2,737	2,621	6,059
2012	1,095	3,392	3,809	8,296	869	3,173	2,579	6,622
2013	1,197	3,696	4,287	9,180	914	3,449	3,035	7,398
2014	1,379	3,965	4,729	10,073	1,049	3,721	3,339	8,108
<b>2015</b>	<b>1,622</b>	<b>4,495</b>	<b>4,633</b>	<b>10,750</b>	<b>1,199</b>	<b>4,142</b>	<b>3,165</b>	<b>8,506</b>

(a) Hong Kong dollar customer deposits include swap deposits.

Figures may not add up to total because of rounding.

**Table L Geographical Breakdown of Net External Claims/ (Liabilities) of All Authorized Institutions**

Region/Economy <sup>(a)</sup> (HK\$ billion)	2014			2015		
	Net Claims on/ (Liabilities to) Banks Outside Hong Kong	Net Claims on/ (Liabilities to) Non-Bank Customers Outside Hong Kong	Total Net Claims/ (Liabilities)	Net Claims on/ (Liabilities to) Banks Outside Hong Kong	Net Claims on/ (Liabilities to) Non-Bank Customers Outside Hong Kong	Total Net Claims/ (Liabilities)
<b>Developed Countries</b>	(440)	475	36	<b>575</b>	<b>877</b>	<b>1,452</b>
United States of America	60	246	307	<b>296</b>	<b>421</b>	<b>717</b>
United Kingdom	38	8	46	<b>188</b>	<b>21</b>	<b>209</b>
Australia	85	28	113	<b>143</b>	<b>25</b>	<b>168</b>
Japan	(382)	85	(297)	<b>(65)</b>	<b>208</b>	<b>143</b>
France	(39)	41	2	<b>70</b>	<b>53</b>	<b>123</b>
Germany	49	34	83	<b>25</b>	<b>52</b>	<b>77</b>
Canada	(20)	31	12	<b>14</b>	<b>56</b>	<b>70</b>
Luxembourg	15	3	18	<b>48</b>	<b>8</b>	<b>56</b>
Norway	6	1	8	<b>5</b>	<b>12</b>	<b>17</b>
Sweden	3	1	4	<b>1</b>	<b>10</b>	<b>11</b>
Ireland	(0)	6	6	<b>(0)</b>	<b>10</b>	<b>9</b>
Finland	(0)	1	1	<b>(0)</b>	<b>4</b>	<b>4</b>
Malta	(4)	0	(4)	<b>(0)</b>	<b>1</b>	<b>1</b>
New Zealand	3	(5)	(2)	<b>3</b>	<b>(3)</b>	<b>1</b>
Denmark	1	0	1	<b>1</b>	<b>0</b>	<b>1</b>
Austria	(8)	0	(8)	<b>0</b>	<b>1</b>	<b>1</b>
Slovenia	-	-	-	<b>(0)</b>	<b>(1)</b>	<b>(1)</b>
Liechtenstein	0	(0)	(0)	<b>(0)</b>	<b>(0)</b>	<b>(1)</b>
Cyprus	(0)	(1)	(1)	<b>(0)</b>	<b>(1)</b>	<b>(1)</b>
Portugal	0	(0)	(0)	<b>0</b>	<b>(1)</b>	<b>(1)</b>
Greece	(0)	(1)	(1)	<b>(0)</b>	<b>(2)</b>	<b>(2)</b>
Belgium	(4)	(0)	(4)	<b>(7)</b>	<b>(1)</b>	<b>(7)</b>
Spain	(18)	(1)	(19)	<b>(8)</b>	<b>(1)</b>	<b>(9)</b>
Switzerland	(14)	(15)	(29)	<b>(7)</b>	<b>(14)</b>	<b>(20)</b>
Italy	(58)	(4)	(63)	<b>(36)</b>	<b>(4)</b>	<b>(40)</b>
Netherlands	(152)	16	(136)	<b>(95)</b>	<b>20</b>	<b>(75)</b>
Others	-	-	-	<b>0</b>	<b>1</b>	<b>1</b>
<b>Offshore centres</b>	<b>(131)</b>	<b>(123)</b>	<b>(254)</b>	<b>(190)</b>	<b>(48)</b>	<b>(238)</b>
West Indies UK	-	-	-	<b>(0)</b>	<b>45</b>	<b>45</b>
Bahrain	16	(0)	15	<b>20</b>	<b>3</b>	<b>23</b>
Mauritius	11	1	12	<b>1</b>	<b>5</b>	<b>6</b>
Panama	(0)	(6)	(6)	<b>(2)</b>	<b>4</b>	<b>2</b>
Isle of Man	(0)	0	0	<b>(0)</b>	<b>1</b>	<b>1</b>
Barbados	0	(6)	(6)	<b>0</b>	<b>(1)</b>	<b>(1)</b>
Vanuatu	0	(1)	(1)	<b>(0)</b>	<b>(1)</b>	<b>(1)</b>
Jersey	4	(3)	1	<b>1</b>	<b>(3)</b>	<b>(2)</b>
Bahamas	(9)	8	(1)	<b>(6)</b>	<b>1</b>	<b>(5)</b>
Bermuda	(0)	(10)	(10)	<b>(0)</b>	<b>(5)</b>	<b>(5)</b>
Guernsey	0	(3)	(3)	<b>1</b>	<b>(7)</b>	<b>(6)</b>
Cayman Islands	(19)	13	(6)	<b>(47)</b>	<b>27</b>	<b>(19)</b>
Samoa	0	(22)	(22)	<b>(0)</b>	<b>(20)</b>	<b>(20)</b>
Macao SAR	(139)	3	(136)	<b>(126)</b>	<b>5</b>	<b>(121)</b>
Singapore	5	(97)	(92)	<b>(31)</b>	<b>(103)</b>	<b>(134)</b>
Others	-	-	-	<b>0</b>	<b>0</b>	<b>1</b>

**Table L Geographical Breakdown of Net External Claims/ (Liabilities) of All Authorized Institutions** (continued)

Region/Economy <sup>(a)</sup> (HK\$ billion)	2014			2015		
	Net Claims on/ (Liabilities to) Banks Outside Hong Kong	Net Claims on/ (Liabilities to) Non-Bank Customers Outside Hong Kong	Total Net Claims/ (Liabilities)	Net Claims on/ (Liabilities to) Banks Outside Hong Kong	Net Claims on/ (Liabilities to) Non-Bank Customers Outside Hong Kong	Total Net Claims/ (Liabilities)
<b>Developing Europe</b>	1	(6)	(4)	<b>(2)</b>	<b>(6)</b>	<b>(8)</b>
Turkey	2	0	3	<b>3</b>	<b>1</b>	<b>4</b>
Hungary	(0)	(1)	(1)	<b>2</b>	<b>1</b>	<b>3</b>
Poland	0	(0)	(0)	<b>0</b>	<b>(1)</b>	<b>(1)</b>
Russia	(1)	(5)	(6)	<b>(1)</b>	<b>(6)</b>	<b>(7)</b>
Others	-	-	-	<b>(6)</b>	<b>(1)</b>	<b>(7)</b>
<b>Developing Latin America and Caribbean</b>	15	9	24	<b>14</b>	<b>2</b>	<b>16</b>
Venezuela	13	(1)	12	<b>10</b>	<b>(1)</b>	<b>9</b>
Brazil	2	(0)	2	<b>3</b>	<b>4</b>	<b>7</b>
Mexico	1	4	5	<b>1</b>	<b>5</b>	<b>6</b>
Peru	0	6	7	<b>0</b>	<b>5</b>	<b>5</b>
Argentina	(0)	(1)	(1)	<b>0</b>	<b>(1)</b>	<b>(1)</b>
Chile	0	(0)	(0)	<b>0</b>	<b>(3)</b>	<b>(3)</b>
Others	-	-	-	<b>0</b>	<b>(7)</b>	<b>(7)</b>
<b>Developing Africa and Middle East</b>	(11)	5	(6)	<b>28</b>	<b>(65)</b>	<b>(37)</b>
United Arab Emirates	24	1	25	<b>47</b>	<b>9</b>	<b>56</b>
Qatar	0	3	3	<b>10</b>	<b>3</b>	<b>13</b>
South Africa	(0)	(1)	(2)	<b>4</b>	<b>(1)</b>	<b>3</b>
Iraq	0	1	1	<b>0</b>	<b>2</b>	<b>2</b>
Oman	(0)	1	1	<b>0</b>	<b>1</b>	<b>1</b>
Egypt	(0)	1	1	<b>(0)</b>	<b>1</b>	<b>1</b>
Kenya	0	1	1	<b>(1)</b>	<b>1</b>	<b>0</b>
Algeria	(0)	(0)	(0)	<b>(0)</b>	<b>(0)</b>	<b>(1)</b>
Ghana	(0)	0	0	<b>(1)</b>	<b>0</b>	<b>(1)</b>
Israel	(1)	(2)	(3)	<b>1</b>	<b>(2)</b>	<b>(1)</b>
Liberia	0	(1)	(1)	<b>0</b>	<b>(2)</b>	<b>(2)</b>
Nigeria	(4)	0	(4)	<b>(2)</b>	<b>0</b>	<b>(2)</b>
Saudi Arabia	(21)	8	(13)	<b>(25)</b>	<b>8</b>	<b>(18)</b>
Kuwait	(8)	(8)	(16)	<b>(3)</b>	<b>(18)</b>	<b>(20)</b>
Others	-	-	-	<b>(1)</b>	<b>(68)</b>	<b>(70)</b>

**Table L Geographical Breakdown of Net External Claims/ (Liabilities) of All Authorized Institutions** (continued)

Region/Economy <sup>(a)</sup> (HK\$ billion)	2014			2015		
	Net Claims on/ (Liabilities to) Banks Outside Hong Kong	Net Claims on/ (Liabilities to) Non-Bank Customers Outside Hong Kong	Total Net Claims/ (Liabilities)	Net Claims on/ (Liabilities to) Banks Outside Hong Kong	Net Claims on/ (Liabilities to) Non-Bank Customers Outside Hong Kong	Total Net Claims/ (Liabilities)
<b>Developing Asia and Pacific</b>	2,654	(141)	2,513	<b>1,013</b>	<b>(334)</b>	<b>679</b>
Mainland China	2,127	119	2,247	<b>693</b>	<b>(97)</b>	<b>595</b>
Republic of Korea	167	(25)	142	<b>147</b>	<b>(12)</b>	<b>135</b>
India	32	102	134	<b>27</b>	<b>98</b>	<b>125</b>
Malaysia	55	(21)	34	<b>33</b>	<b>(12)</b>	<b>21</b>
Indonesia	16	13	29	<b>5</b>	<b>16</b>	<b>20</b>
Bangladesh	10	1	11	<b>12</b>	<b>(1)</b>	<b>12</b>
Sri Lanka	7	1	9	<b>7</b>	<b>2</b>	<b>9</b>
Laos	4	1	4	<b>2</b>	<b>0</b>	<b>2</b>
Papua New Guinea	(0)	2	1	<b>0</b>	<b>1</b>	<b>1</b>
Thailand	41	(67)	(26)	<b>34</b>	<b>(33)</b>	<b>1</b>
Pakistan	2	1	2	<b>1</b>	<b>(2)</b>	<b>(0)</b>
Mongolia	-	-	-	<b>0</b>	<b>(1)</b>	<b>(1)</b>
Vietnam	(1)	4	3	<b>(4)</b>	<b>1</b>	<b>(2)</b>
Cambodia	(2)	(2)	(4)	<b>(2)</b>	<b>(1)</b>	<b>(3)</b>
Kazakhstan	(0)	(5)	(6)	<b>(0)</b>	<b>(5)</b>	<b>(5)</b>
Brunei Darussalam	(4)	(2)	(6)	<b>(4)</b>	<b>(2)</b>	<b>(6)</b>
Nepal	(10)	(2)	(11)	<b>(11)</b>	<b>(1)</b>	<b>(12)</b>
Philippines	(6)	(2)	(9)	<b>(30)</b>	<b>(5)</b>	<b>(35)</b>
Taiwan	216	(257)	(42)	<b>105</b>	<b>(285)</b>	<b>(180)</b>
Others	-	-	-	<b>(4)</b>	<b>4</b>	<b>(0)</b>
<b>Others <sup>(b)</sup></b>	57	(93)	(37)	<b>0</b>	<b>76</b>	<b>76</b>
<b>Overall Total</b>	2,145	127	2,272	<b>1,438</b>	<b>502</b>	<b>1,940</b>

(a) Regions and economies are classified according to the Bank for International Settlements' (BIS) Guidelines for Reporting the BIS International Banking Statistics.

(b) "Others" include economies not listed above and positions in relation to international organisations.

A "-" sign denotes data not available.

Figures may not add up to total because of rounding.

## Abbreviations used in this Report

AI	– Authorized institution	HKIB	– Hong Kong Institute of Bankers
APEC	– Asia-Pacific Economic Co-operation	HKICL	– Hong Kong Interbank Clearing Limited
AML	– Anti-money laundering	HKICPA	– Hong Kong Institute of Certified Public Accountants
ASEAN	– Association of Southeast Asian Nations	HKIMR	– Hong Kong Institute for Monetary Research
AMLO	– Anti-Money Laundering and Counter-Terrorist Financing (Financial Institutions) Ordinance	HKMA	– Hong Kong Monetary Authority
AMRO	– ASEAN+3 Macroeconomic Research Office	HKMC	– Hong Kong Mortgage Corporation Limited
BCR	– Banking (Capital) Rules	HKSAR	– Hong Kong Special Administrative Region
BDR	– Banking (Disclosure) Rules	IASB	– International Accounting Standards Board
BIS	– Bank for International Settlements	iBonds	– Inflation-linked retail bonds
BLR	– Best Lending Rate	IGL	– Interest Group on Liquidity
CCR	– Counterparty credit risk	ILAS	– Investment-linked assurance scheme
CCyB	– Countercyclical capital buffer	IMF	– International Monetary Fund
CEPA	– Closer Economic Partnership Arrangement	INEDs	– Independent non-executive directors
CFT	– Counter-terrorist financing	IOSCO	– International Organization of Securities Commissions
CGFS	– Committee on the Global Financial System	IRB	– Internal ratings-based
CHATS	– Clearing House Automated Transfer System	ISC	– Investment Sub-Committee
CLS	– Continuous Linked Settlement	LCR	– Liquidity Coverage Ratio
CMGs	– Crisis management groups	LMR	– Liquidity Maintenance Ratio
CMIM	– Chiang Mai Initiative Multilateralisation	LERS	– Linked Exchange Rate System
CMU	– Central Moneymarkets Unit	LIBOR	– London Interbank Offered Rate
CPMI	– Committee on Payments and Market Infrastructures	LTGP	– Long-Term Growth Portfolio
CSDs	– Central Securities Depositories	LTV	– Loan-to-value
CSRC	– China Securities Regulatory Commission	ML/TF	– Money laundering and terrorist financing
CSSO	– Clearing and Settlement Systems Ordinance	MPF	– Mandatory Provident Fund
CTCs	– Corporate treasury centres	NDIs	– Negotiable debt instruments
CUs	– Convertibility Undertakings	NFC	– Near Field Communication
DPS	– Deposit Protection Scheme	NLTI	– Non-linked long term insurance
DSR	– Debt-servicing ratio	NSFR	– Net Stable Funding Ratio
D-SIBs	– Domestic systemically important banks	OECD	– Organisation for Economic Co-operation and Development
DvP	– Delivery-versus-Payment	OTC	– Over-the-counter
EBPP	– Electronic Bill Presentment and Payment	PBoC	– People's Bank of China
ECF	– Enhanced competency framework	PDG	– Policy Development Group
EFAC	– Exchange Fund Advisory Committee	PFMI	– Principles for Financial Market Infrastructures
EFBN	– Exchange Fund Bills and Notes	PSSVFO	– Payment Systems and Stored Value Facilities Ordinance
EMEs	– Emerging market economies	PvP	– Payment-versus-Payment
EMEAP	– Executives' Meeting of East Asia-Pacific Central Banks	PWMA	– Private Wealth Management Association
FASB	– Financial Accounting Standards Board	RCAP	– Regulatory Consistency Assessment Programme
FIRB	– Financial Institutions (Resolution) Bill	RIs	– Registered Institutions
FMI	– Financial market infrastructures	RMB	– Renminbi
FOMC	– US Federal Open Market Committee	RML	– Residential mortgage loans
FS	– Financial Secretary	RPS	– Retail Payment Systems
FSB	– Financial Stability Board	RTGS	– Real Time Gross Settlement
FSTB	– Financial Services and the Treasury Bureau	SDR	– Special Drawing Rights
G20	– Group of Twenty	SFC	– Securities and Futures Commission
GBP	– Government Bond Programme	SFO	– Securities and Futures Ordinance
GDP	– Gross Domestic Product	SIG	– Supervision and Implementation Group
GSC	– Governance Sub-Committee	SPM	– Supervisory Policy Manual
G-SIBs	– Global systemically important banks	SVF	– Stored Value Facilities
HIBOR	– Hong Kong Interbank Offered Rate	TMA	– Treasury Markets Association
HKAB	– Hong Kong Association of Banks		
HKFRSs	– Hong Kong Financial Reporting Standards		

# Reference Resources

The *HKMA Annual Report* is published in April each year. A number of other HKMA publications provide explanatory and background information on the HKMA's policies and functions. These include:

## **An Introduction to the Hong Kong Monetary Authority**

**HKMA Quarterly Bulletin** (online publication)

(published in March, June, September and December each year)

**Monthly Statistical Bulletin** (online publication)

(published in two batches on the third and sixth business days of each month)

**Guide to Hong Kong Monetary and Banking Terms** (online publication)

**HKMA Background Brief No. 1 – Hong Kong's Linked Exchange Rate System** (Second Edition)

**HKMA Background Brief No. 2 – Banking Supervision in Hong Kong** (Second Edition)

**HKMA Background Brief No. 3 – Mandate and Governance of the Hong Kong Monetary Authority**

**HKMA Background Brief No. 4 – Financial Infrastructure in Hong Kong** (Second Edition)

**HKMA Background Brief No. 5 – Reserves Management in Hong Kong**

**Money in Hong Kong**

**Money and Banking in Hong Kong: A Historical Timeline**

**Educational leaflets on various topics including notes and coins and banking issues**

HKMA publications may be purchased or obtained from the **HKMA Information Centre**, 55th Floor, Two International Finance Centre, 8 Finance Street, Central, Hong Kong. The HKMA Information Centre consists of an Exhibition Area and a Library. The Centre introduces the work of the HKMA and houses books, journals and other texts on central banking and related subjects. The Centre is open to the public six days a week.

Most HKMA publications are also available for downloading free of charge from the HKMA website ([www.hkma.gov.hk](http://www.hkma.gov.hk)). A mail order form for the purchase of print publications can be found on the website.

The main texts of the regular briefings by the HKMA to the Legislative Council Panel on Financial Affairs are available online.

The HKMA website contains detailed and extensive information on the whole range of the HKMA's work. This information includes press releases, statistics, speeches, guidelines and circulars, research reports, and features on topical issues.





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## **HONG KONG MONETARY AUTHORITY**

55/F, Two International Finance Centre,  
8 Finance Street, Central, Hong Kong

Telephone : (852) 2878 8196

Facsimile : (852) 2878 8197

E-mail : [hkma@hkma.gov.hk](mailto:hkma@hkma.gov.hk)

**[www.hkma.gov.hk](http://www.hkma.gov.hk)**