

Results of surveys on selected debt securities and off-balance sheet exposures to derivatives and securitisations

by the Banking Policy Department

In the 12-month period ending June 2014, authorized institutions (AIs) recorded a moderate growth in their holdings of non-structured debt securities that continued to reflect a preference for a move towards securities issued by sovereigns over those issued by banks. In contrast, AIs' holdings of structured debt securities continued to decline. In relation to off-balance sheet exposures, there was a significant increase in AIs' overall derivatives activity during the period, which was mainly attributed to increased foreign exchange positions during the first half of 2014.

The enactment of the Securities and Futures (Amendment) Ordinance in April 2014 has established a broad regulatory framework for the regulation of the over-the-counter (OTC) derivative market. The development of detailed requirements to be set out in subsidiary legislation is in progress.

Introduction

The HKMA introduced two half-yearly surveys in November 2008, the Survey on Selected Debt Securities and the Survey on Off-balance Sheet Exposures in Derivatives and Securitisation Transactions, to help strengthen its oversight of the banking sector's exposure to structured credit products and OTC derivatives.

In total, 178 AIs¹ participated in the Survey on Selected Debt Securities and 201 AIs² participated in the Survey on Off-balance Sheet Exposures in Derivatives and Securitisation Transactions for the 6-month periods ended December 2013 and June 2014.³ This article presents the results of the surveys.

Highlights of major findings

The surveys found that:

1. The total market value of the selected debt securities⁴ held by the surveyed AIs at the end of June 2014 was HK\$1,823 billion, 6.7% higher than a year earlier, primarily because of an increase in the holdings of non-structured securities. Holdings of non-structured securities accounted for 96.9% of the selected debt securities held by AIs. In line with the results published in previous years, most of the non-structured securities were issued by banks, sovereigns and corporates. The selected debt securities were held mainly for investment purposes.

¹ Representing all licensed banks and restricted licence banks in Hong Kong, the total assets of which at the end of June 2014, in the aggregate, accounted for 99.8% of the total assets of the banking sector.

² Representing all AIs (i.e. licensed banks, restricted licence banks and deposit taking companies) in Hong Kong.

³ The results of the surveys conducted for the positions at the end of December 2012 and June 2013 were published in the *HKMA Quarterly Bulletin* in December 2013.

⁴ Selected debt securities are debt securities other than Exchange Fund Bills and Notes, US Treasury bills, notes and bonds, and debt securities issued by multilateral development banks.

2. The total market value of Als' holdings of structured securities⁵ recorded a 10.0% year-to-year decline to HK\$56 billion at the end of June 2014. The holdings remained insignificant at 0.7% of the total assets of those surveyed Als with holdings in structured securities, and were made up mostly of securities backed by residential mortgage loans and claims on public sector entities. As in previous years, the majority of the structured securities held by Als (58.7%) were backed by residential mortgage loans. The proportion of securities backed by non-prime residential mortgage loans⁶ further reduced to 1.5% (1.9% in June 2013).
3. The trend of increasing activity in derivatives contracts observed since June 2009 continued, with exchange rate and interest rate contracts remaining the main types of contracts held. Fuelled by a 21% increase in foreign exchange forwards and swaps, the total notional amount of outstanding derivatives contracts (other than credit derivatives) reached a new high of HK\$70,825 billion at the end of June 2014, representing a year-on-year growth of 15.2%.
4. Compared with the same period last year, the total notional amount of credit derivatives dropped a further 18.3% to HK\$315 billion at the end of June 2014. The holdings of credit derivatives remained small and highly concentrated in a few Als, accounting for only 0.4% of all the outstanding derivatives contracts reported.
5. The off-balance sheet securitisation exposures of Als, which mainly consisted of liquidity facilities, credit enhancements and interest rate and currency derivatives provided to securitisation transactions, remained small.

Details of major findings

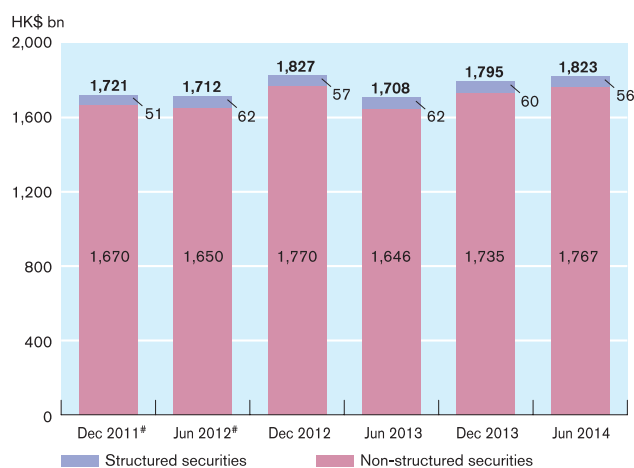
Selected debt securities held

The aggregate market value of selected debt securities held by all surveyed Als stood at HK\$1,823 billion at the end of June 2014 (Chart 1), up 6.7% from a year earlier. The growth was mainly driven by an increase in a few local Als' holdings of investment-grade non-structured securities issued by sovereigns. The selected debt securities as a percentage share of all surveyed Als' total assets was 9.3% at end-June 2014 (10.2% at the end of June 2013).

Als' holdings of structured securities remained small at HK\$56 billion at the end of June 2014, representing a year-on-year reduction of 10.0%. As in the previous year, none of the Als with holdings in structured securities were the originators of those securities.

CHART 1

Market value of selected debt securities held by all surveyed Als



* Revised figures.

⁵ Structured securities include asset-backed securities (ABSs), mortgage-backed securities (MBSs), collateralised debt obligations (CDOs), notes issued by structured investment vehicles (SIV notes), asset-backed commercial paper (ABCP) and any other similar structured products, but exclude credit-linked notes.

⁶ "Non-prime" refers to Alt-A and sub-prime, or their equivalents in the case of non-US markets.

At the end of June 2014, HK\$1,365 billion, or 74.9% of the aggregate market value of the selected debt securities held by the surveyed AIs, was held by local banks⁷, 10.7% higher than the value reported a year earlier. Of this, HK\$44 billion was structured securities, 9.0% lower than the HK\$49 billion at the end of June 2013. The decrease was mainly due to the disposal of asset-backed securities backed by claims on public sector entities and the maturing of residential mortgage backed securities. The holdings of structured securities represented 8.8% of the aggregate capital base of the local banks concerned at the end of June 2014 (11% at the end of June 2013).

The following analysis illustrates the distribution of debt securities reported by the surveyed AIs:

Non-structured securities

By type of issuer or reference entity⁸:

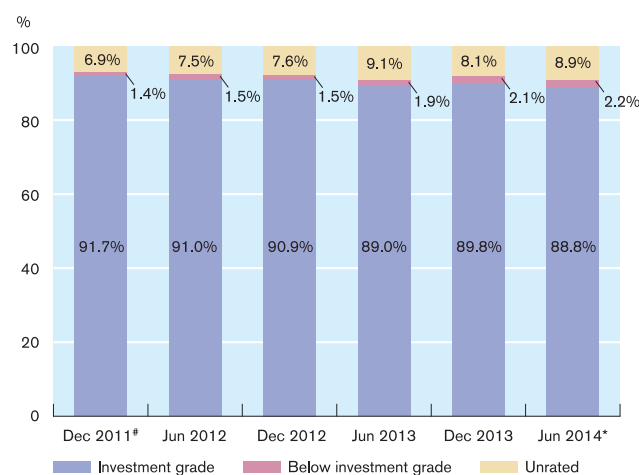
Banks, sovereigns and corporates remained the three largest categories of non-structured securities by type of issuer or reference entity, with shares of 39.8%, 33.7% and 16.5% respectively (Table 1). The changes in the percentage shares of the sovereign and bank categories reflect the fact that AIs tended to opt for more debt securities issued by sovereigns when making new investments or replenishing matured / sold bank debt.

By credit quality:

A total of 88.8% of the non-structured securities held by the AIs had investment-grade credit ratings (89.8% in December 2013) (Chart 2) and 78.2% had a single-A rating or above (79.4% in December 2013). Similar to previous years, investment-grade securities were mainly issued by banks and sovereigns while unrated securities were mainly issued by corporates.

CHART 2

Percentage share by credit quality of non-structured securities



* Figures do not add up to 100% due to rounding.

Revised figures.

TABLE 1

Percentage share by type of issuer or reference entity

Issuer or reference entity	All surveyed AIs					
	Jun 2014	Dec 2013	Jun 2013	Dec 2012	Jun 2012**	Dec 2011#
Sovereigns	33.7%	31.8%	27.7%	37.0%	36.5%	36.3%
Public sector entities	6.5%	7.2%	6.9%	6.2%	6.6%	7.2%
Banks	39.8%	42.1%	45.5%	41.0%	41.4%	41.8%
Non-bank financial institutions ⁹	3.2%	3.2%	3.8%	3.2%	3.1%	3.5%
Investment funds and highly leveraged institutions (e.g. hedge funds)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Corporates	16.5%	15.5%	15.6%	12.1%	11.6%	10.4%
Others	0.3%	0.2%	0.5%	0.5%	0.7%	0.8%

* Figures do not add up to 100% due to rounding.

Revised figures.

⁷ Local banks refer to licensed banks incorporated in Hong Kong.

⁸ When the securities held by an AI are credit-linked notes or when the credit risk of the securities held by an AI is hedged by credit derivatives contracts, the AI is required to report the type of the reference entity of the credit-linked notes or credit

derivatives contracts concerned instead of the type of the issuer of the securities.

⁹ Including securities firms, insurance companies, investment banks and fund houses.

Structured securities

By type of product:

The number of surveyed AIs with holdings in structured securities further reduced to 18 (22 AIs in June 2013). The holdings were concentrated in a few AIs, with the top five (mostly local banks) accounting for 91.5% of the total market value of structured securities reported. In general, the holdings were mainly in relatively simple securitisation products, such as MBSs (Table 2). AIs' investment in sukuk¹⁰ was insignificant, with the total market value of HK\$1.5 billion being 32.1% lower than the value reported a year ago.

By credit quality:

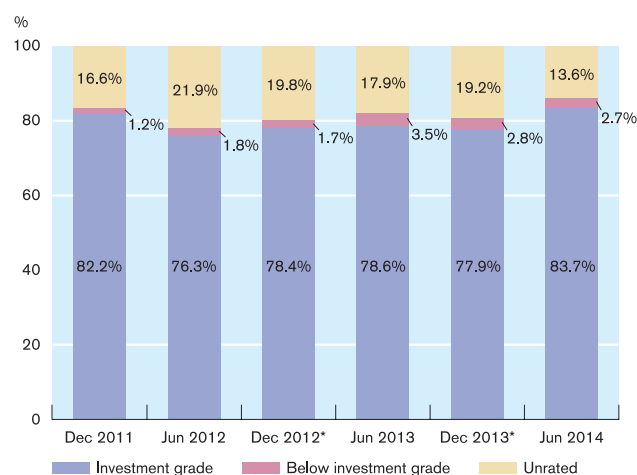
Consistent with last year's observations, most of the structured securities had investment-grade credit ratings (Chart 3) and 78.6% (72.8% in December 2013) had a single-A rating or above. The percentage share of investment-grade structured securities rose in the first half of 2014 mainly because of a significant reduction in holdings of unrated securities from HK\$11.5 billion in December 2013 to HK\$7.7 billion in June 2014.

By underlying asset:

Residential mortgage loans (58.7%) remained the main type of asset underlying the structured securities held by AIs. There was in general a decrease in the principal amounts of structured securities across most of the underlying asset classes in the first half of 2014. The decline was attributed mostly to structured securities backed by claims on public sector entities and, to a lesser extent, those backed by residential mortgage loans, resulting in an increase in the percentage share of the latter. AIs' indirect exposure to non-prime assets

CHART 3

Percentage share by credit quality of structured securities



* Figures do not add up to 100% due to rounding.

TABLE 2

Percentage share by type of product

Structured product	All surveyed AIs					
	Jun 2014	Dec 2013*	Jun 2013	Dec 2012*	Jun 2012*	Dec 2011*
ABSs (including MBSs)	86.2%	86.0%	87.1%	90.0%	89.1%	87.2%
CDOs	3.4%	3.0%	3.7%	4.9%	6.2%	7.5%
SIV notes	0.4%	1.3%	1.2%	3.4%	3.1%	3.7%
Re-securitisation ¹¹	2.5%	2.6%	1.1%	0.2%	0.4%	1.0%
Sukuk	2.6%	2.7%	3.4%	1.4%	1.1%	0.5%
ABCP	4.9%	4.5%	3.5%	–	–	–

* Figures do not add up to 100% due to rounding.

¹⁰ Sukuk is an Islamic financial instrument broadly equivalent to bonds in the conventional financial market.

¹¹ Re-securitisation is defined in the survey as a transaction in which the underlying assets consist of 50% or more securitisation or structured products.

(mainly sub-prime residential mortgage loans) through holdings of securities backed by such assets remained low, with such holdings accounting for only 1.5% of the total portfolio of structured securities held by AIs (Table 3).

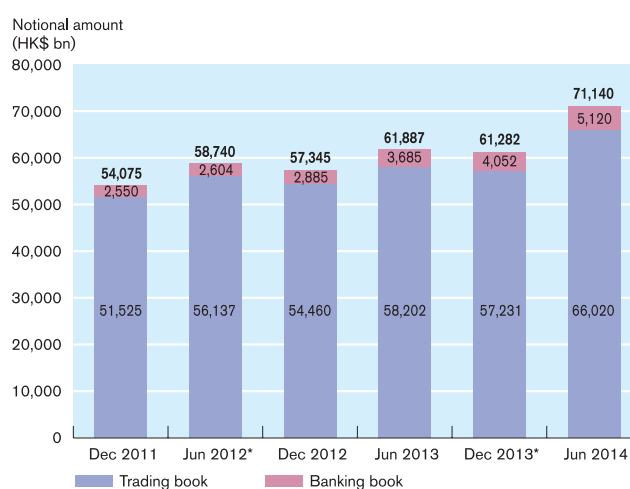
Exposures in derivatives

There was a general increase across individual AIs' derivatives activities in the first half of 2014. The total notional amount of outstanding derivatives contracts held by all surveyed AIs at the end of June 2014 stood at HK\$71,140 billion, 16.1% higher than at the end of December 2013 (Chart 4). Most of the contracts were held for trading purposes. The growth was mostly attributed to some AIs' increased positions in OTC foreign exchange contracts. The derivatives activities were still dominated by a small group of AIs, with the positions of the top five AIs accounting for 64.5% of the total notional amount.

Of the total notional amount of outstanding derivatives contracts held by all surveyed AIs, 57.5% (or HK\$40,913 billion) was held by local banks,

CHART 4

Derivatives contracts held by all surveyed AIs



* Figures do not add up to total due to rounding.

which was 8.3% higher than at the end of June 2013.

The following analysis illustrates the distribution of outstanding derivatives contracts reported by the surveyed AIs:

TABLE 3

Percentage share by type of underlying asset

Type of underlying asset	All surveyed AIs					
	Jun 2014*	Dec 2013*	Jun 2013*	Dec 2012*	Jun 2012	Dec 2011*
Claims on sovereigns	2.6%	2.7%	3.4%	1.4%	1.2%	0.6%
Claims on public sector entities	11.9%	17.3%	16.4%	17.4%	17.8%	12.0%
Claims on banks	0.2%	0.2%	0.1%	0.4%	0.4%	0.5%
Claims on non-bank financial institutions	4.9%	4.5%	3.5%	0.1%	0.1%	0.2%
Claims on corporates	1.5%	1.4%	1.2%	1.5%	0.6%	0.8%
Commercial mortgages	1.1%	1.1%	1.7%	2.3%	3.0%	4.3%
Residential mortgages	58.7%	55.9%	56.8%	60.6%	55.3%	58.1%
of which non-prime	1.5%	1.6%	1.9%	3.3%	3.7%	5.4%
Credit card receivables	8.7%	7.0%	7.2%	5.5%	11.6%	11.4%
of which non-prime	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other personal lending	6.0%	4.7%	4.6%	4.5%	3.4%	6.9%
of which non-prime	0.1%	0.1%	0.2%	0.3%	0.5%	0.9%
Others	4.5%	5.1%	5.2%	6.2%	6.6%	5.4%

* Figures do not add up to 100% due to rounding.

Type of product

There was no significant change in the composition by type of product. As in previous years, swaps and forwards were the major types of OTC derivatives contracts held, representing 58.8% and 29.3% of the total notional amount of all derivatives contracts held at the end of June 2014 respectively (Table 4). Als' holdings of exchange-traded derivatives remained minimal.

Type of underlying risk

The largest category of underlying risk in respect of the derivatives contracts held was exchange rate risk, followed by interest rate risk (Table 5). Owing to higher customer demand, the aggregate notional amount of foreign exchange contracts grew by 23.9% during the first half of 2014, significantly

outpacing the 8.2% growth in interest rate contracts. As in the previous year, most derivatives contracts held by local banks were interest rate contracts and exchange rate contracts, respectively accounting for 50.2% and 46.1% of the derivatives contracts held by the banks at the end of June 2014.

Type of counterparty

Banks and related parties of the surveyed Als remained the most common types of counterparty in derivative transactions. There was a downward trend in the percentage share of Als' transactions with banks, despite a mild year-on-year increase in total notional amount by 2.0% to HK\$33,216 billion at the end of June 2014. More transactions were entered into with related parties and non-bank financial institutions (rising year-on-year by 28.7% to

TABLE 4

Percentage share by type of product

Derivatives product	All surveyed Als					
	Jun 2014	Dec 2013	Jun 2013	Dec 2012	Jun 2012	Dec 2011
Exchange-traded derivatives	2.5%	2.8%	2.6%	2.4%	3.0%	3.2%
OTC derivatives	97.5%*	97.2%	97.4%*	97.6%	97.0%*	96.8%
of which						
Forwards	29.3%	28.0%	29.4%	28.6%	28.6%	27.9%
Swaps	58.8%	61.2%	58.4%	61.5%	59.4%	60.9%
Options	8.5%	7.1%	8.5%	6.6%	7.8%	6.7%
Credit derivatives	0.4%	0.5%	0.6%	0.7%	0.8%	0.9%
Others	0.4%	0.4%	0.6%	0.2%	0.5%	0.4%

* Figures do not add up to total due to rounding.

TABLE 5

Percentage share by type of underlying risk

Underlying risk	All surveyed Als					
	Jun 2014*	Dec 2013	Jun 2013*	Dec 2012	Jun 2012	Dec 2011*
Interest rate risk	40.7%	43.7%	43.3%	46.2%	47.1%	50.3%
Foreign exchange risk	56.8%	53.2%	53.8%	51.3%	50.0%	46.9%
Equity risk	1.9%	2.3%	2.2%	1.7%	2.0%	1.7%
Commodity risk	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%
Credit risk	0.4%	0.5%	0.6%	0.7%	0.8%	0.9%
Other risks	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%

* Figures do not add up to 100% due to rounding.

HK\$20,166 billion and 49.0% to HK\$10,124 billion respectively during the same period) (Table 6).

Credit derivatives

At the end of June 2014, 12 AIs (10 AIs in June 2013), including three local banks, had outstanding credit derivatives. Consistent with previous years' observations, the credit derivatives positions of the surveyed AIs (i.e. both in terms of buying and selling protection) have been shrinking, with the total notional amount reduced to HK\$315 billion (Chart 5) at the end of June 2014. The decline over the year was mainly due to a year-on-year reduction by 34.8% and 58.3% in contracts referenced to corporates and non-bank financial institutions respectively. The holdings of credit derivatives contracts were dominated by a few AIs, with the top three accounting for 97.5% of the total notional amount. The contracts were held mainly for trading purposes.

CHART 5
Credit derivatives held by all surveyed AIs

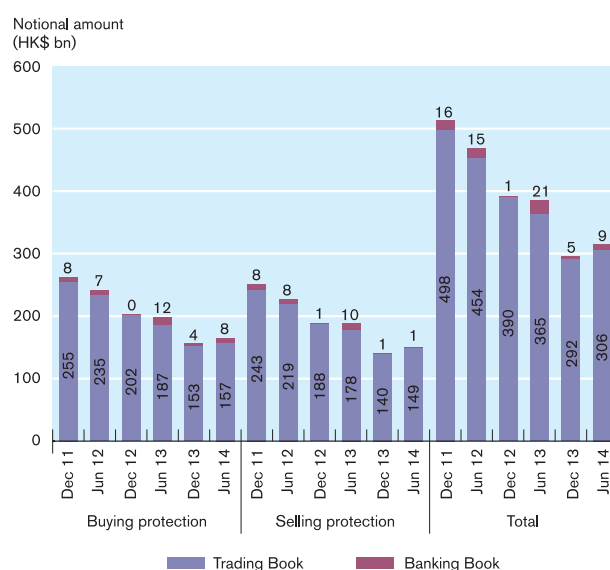


TABLE 6

Percentage share by type of counterparty

Counterparty	All surveyed AIs					
	Jun 2014	Dec 2013	Jun 2013	Dec 2012	Jun 2012	Dec 2011
Related parties	28.3%	26.9%	25.3%	26.5%	25.3%	25.4%
Independent parties						
of which	71.7%*	73.1%	74.7%	73.5%*	74.7%	74.6%*
Banks	46.7%	49.6%	52.6%	55.1%	56.6%	57.4%
Non-bank financial institutions	14.2%	12.9%	11.0%	9.3%	8.0%	7.1%
Investment funds and highly leveraged institutions	0.1%	0.2%	0.2%	0.3%	0.3%	0.2%
Corporates	7.8%	7.2%	7.6%	5.9%	6.0%	5.9%
Others (e.g. individuals)	2.8%	3.2%	3.3%	3.0%	3.8%	4.1%

* Figures do not add up to total due to rounding.

Reference entity

By type:

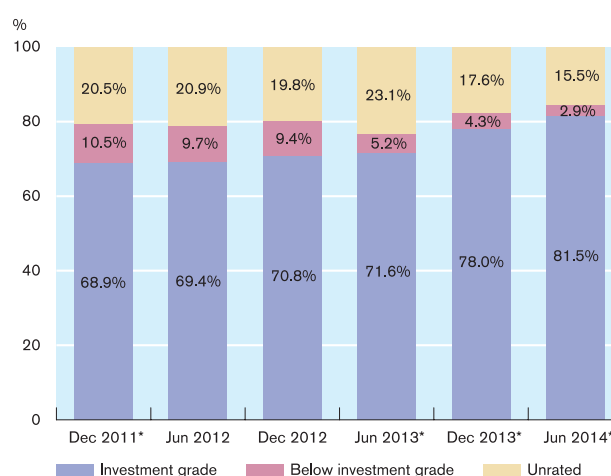
Sovereigns (43.5%), corporates (37.4%) and banks (16.5%) remained the major types of reference entity (Table 7).

By credit quality:

There was a reduction in notional amount in all categories. Similar to last year's results, most of the credit derivatives (81.5%) were linked to reference entities with investment-grade credit ratings (Chart 6) and 62.4% (54.8% in June 2013) to those with a single-A rating or above. As mentioned above, there was a significant reduction in contracts referenced to corporates and non-bank financial institutions, and most of these reference entities were unrated. This resulted in the share of credit derivatives linked to unrated reference entities shrinking year-on-year from 23.1% to 15.5% as at end June 2014. As in previous years, unrated reference entities were mainly corporates while reference entities with non-investment-grade ratings were mostly sovereigns.

CHART 6

Percentage share by credit quality of reference entity



* Figures do not add up to 100% due to rounding.

Off-balance sheet securitisation exposures

Off-balance sheet securitisation exposures of the surveyed AIs remained minimal, with an aggregate amount of HK\$9.9 billion at the end of June 2014 (HK\$7.0 billion in June 2013). The exposures were mainly held by a few AIs and the growth was mostly attributed to exposures in the form of interest rate and currency derivative contracts entered into in relation to securitisation transactions.

TABLE 7

Percentage share by type of reference entity

Reference entity	All surveyed AIs					
	Jun 2014	Dec 2013*	Jun 2013*	Dec 2012	Jun 2012	Dec 2011
Sovereigns	43.5%	39.2%	35.0%	35.4%	30.4%	27.2%
Public sector entities	0.2%	0.2%	0.2%	0.2%	0.4%	0.3%
Banks	16.5%	14.3%	13.3%	12.8%	13.9%	12.7%
Non-bank financial institutions	2.4%	3.2%	4.7%	5.1%	5.5%	5.7%
Investment funds or highly leveraged institutions	–	–	–	–	–	–
Corporates	37.4%	43.2%	46.9%	46.5%	47.0%	51.5%
Tranches of MBSs, ABSs or CDOs	–	–	–	–	2.8%	2.6%
Others	–	–	–	–	0.0%	0.0%

* Figures do not add up to 100% due to rounding.

Conclusion

Als' exposures to non-structured debt securities and derivatives activities (other than credit derivatives) recorded moderate and significant growth respectively during the 12-month period ended June 2014. Meanwhile, Als' holdings of structured debt securities and credit derivatives continued to decline.

The HKMA will continue to monitor Als' holdings of selected debt securities and their derivatives activities, including for the purpose of keeping track of any possible changes due to ongoing regulatory developments (see below under "Regulatory Developments" for further details). From next year, the results of the two surveys will be integrated, in table and chart form, in the Article on "Developments in the Banking Sector" in the HKMA Quarterly Bulletin. The results will appear alongside other regular banking statistics to facilitate understanding of the relevant issues and developments in the context of the Hong Kong banking sector as a whole.

See separate box on regulatory developments.

Regulatory developments

Basel III

The Basel Committee on Banking Supervision (BCBS) issued its final standards on *The standardised approach for measuring counterparty credit risk exposures* and *Capital requirements for bank exposures to central counterparties* in March¹² and April 2014 respectively. The new “standardised approach” to counterparty credit risk (SA-CCR) is a more risk-sensitive methodology to replace the existing non-modelled counterparty credit risk (CCR) measurement approaches (i.e. the “current exposure method” and the “standardised method”) in the Basel capital adequacy framework. The second standard introduces enhancements to the capital treatment of bank exposures to central counterparties (CCPs), particularly in relation to the methodology for the calculation of capital charges for banks’ contributions to CCPs’ default funds. Both standards will come into effect on 1 January 2017. The HKMA will consult the banking industry on its proposals to implement the standards in due course.

OTC derivatives market reform

The HKMA continues to work with the Securities and Futures Commission (SFC) and the Financial Services and the Treasury Bureau (FSTB) in developing a regulatory regime for OTC derivative transactions in line with the G20 recommendations. The framework involves, among other things, the imposition of mandatory reporting and central clearing requirements for OTC derivative transactions specified by the HKMA and the SFC (“the Regulators”). The proposed regime is largely set out in the Securities and Futures Ordinance (SFO) and will be jointly overseen and regulated by the HKMA (for AIs and approved money brokers (AMBs)) and the SFC (for Hong Kong persons other than AIs and AMBs). The precise scope and details of the mandatory obligations will be set out

in rules to be made under the SFO in the form of subsidiary legislation.

Major developments in 2014 include the passage of the legislative amendments to the SFO that give effect to the new regulatory regime in April and the consultation on the first set of rules on the mandatory reporting (and related record keeping) obligation in August.

The Regulators aim to implement the mandatory reporting obligation in the first quarter of 2015, subject to completion of the necessary legislative process for the relevant rules. It is expected that the scope of the reporting requirements will be progressively expanded in phases. Meanwhile, the interim reporting requirement implemented by the HKMA for licensed banks in 2013 remains in force.

The next set of rules planned to be implemented relate to the mandatory clearing (and related record keeping) obligation. It is worth mentioning that local clearing of certain OTC derivatives transactions is already possible following the opening of OTC Clearing Hong Kong Limited (a subsidiary of Hong Kong Exchanges and Clearing Limited) in November 2013.

While the new regulatory framework under the SFO also includes provision for a mandatory trading requirement, this part of the legislation will not be brought into effect until further studies confirm that its implementation is warranted by sufficient local market liquidity.

Following the release of the new global standards on margin requirements for non-centrally cleared derivatives by the BCBS and the International Organization of Securities Commissions (IOSCO) in September 2013, the HKMA is presently considering its policy stance in relation to these standards and their implementation for the banking sector in Hong Kong.

¹² Revised in April 2014.

Other regulatory initiatives

To complement the BCBS-IOSCO margin requirements, new risk mitigation standards for non-centrally cleared OTC derivatives developed by IOSCO¹³ will be issued in due course. These standards are designed to facilitate the management of counterparty credit and other risks associated with derivative transactions, promote the legal certainty of these transactions, and facilitate the timely resolution of disputes arising from these transactions. Once the new standards are finalised by IOSCO, the HKMA will consider updating its prudential framework for AIs as appropriate to align with them.

¹³ In consultation with the BCBS and the Committee on Payments and Market Infrastructures.
