

4. Monetary and financial conditions

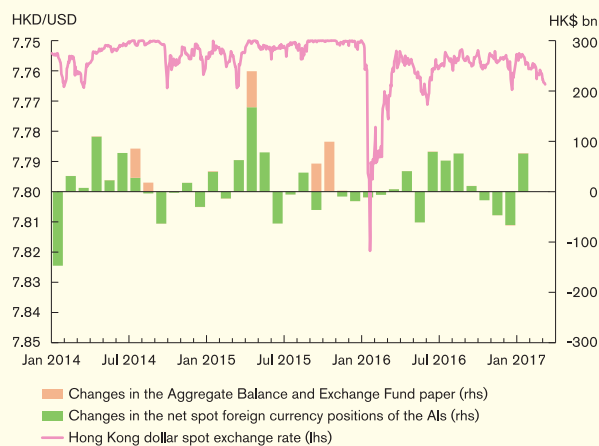
Exchange rate, capital flows and monetary developments

The Hong Kong dollar exchange rate was broadly stable despite financial market volatilities, while the Hong Kong dollar interbank interest rates picked up alongside the movements in their US dollar counterparts. Total loans continued to expand moderately in part underpinned by the improved domestic economic environment. Looking ahead, Hong Kong dollar fund flows could face more volatility amid a faster pace of US interest rate normalisation, policy uncertainties surrounding the new US administration and political risks in Europe.

4.1 Exchange rate and capital flows

The Hong Kong dollar spot exchange rate was broadly stable despite financial market volatilities (Chart 4.1). While Asian currencies generally weakened amid volatilities stemming from the US presidential election in November, the Hong Kong dollar spot exchange rate remained calm. However, the interest rate forecasts released by the US Federal Open Market Committee (FOMC) at the meeting on 13-14 December 2016 had boosted expectations of faster US interest rate hikes, and the Hong Kong dollar softened briefly after the FOMC meeting. After regaining strength along with other Asian currencies in early 2017, the Hong Kong dollar exchange rate saw some easing pressures again since mid-February in the running up to the US interest rate hike in March. During the review period, the Convertibility Undertaking (CU) was not triggered (Chart 4.2).

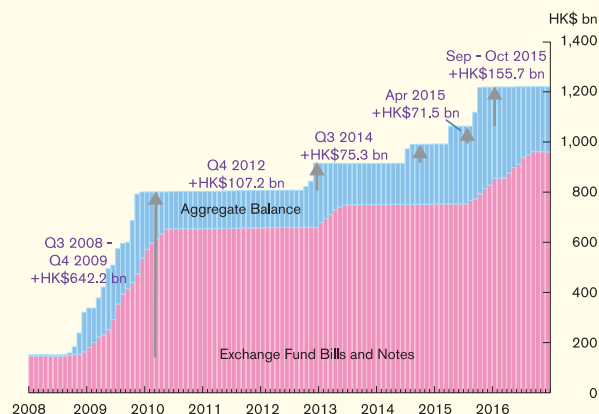
Chart 4.1
Exchange rate and fund flow indicators



Note: For fund flow indicators, a positive value indicates inflows. The change in the net spot foreign currency positions of the authorized institutions (Als) for January is a tentative estimate only, and there is no estimate for February.

Sources: HKMA and staff estimates.

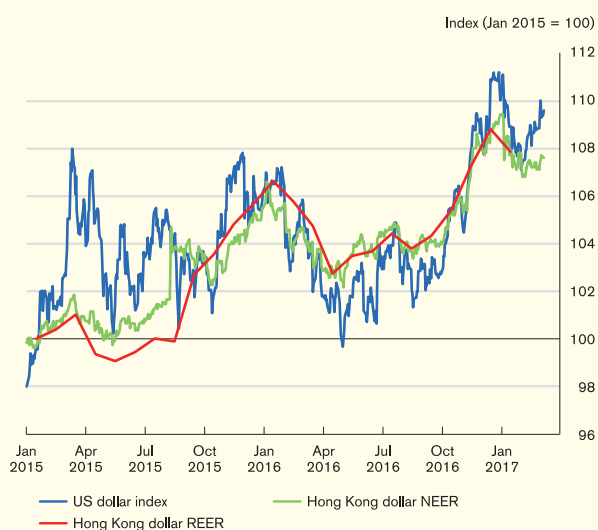
Chart 4.2
Fund flow indicators



Source: HKMA.

Due to the strength of the US dollar, the Hong Kong dollar nominal effective exchange rate index (NEER) increased by 4.9% between August and December before stabilising more recently (Chart 4.3). The Hong Kong dollar real effective exchange rate index (REER) moved closely with the NEER as the narrowing inflation differential between Hong Kong and its trading partners posed only small influences on the movement of the REER.

Chart 4.3
Nominal and real effective exchange rates



Note: REER is seasonally adjusted and only available on a monthly basis.
Sources: C&SD and HKMA staff estimates.

Portfolio investment saw outflows in the second half of 2016. According to the latest Balance of Payments (BoP) statistics, there were net equity and debt portfolio investment inflows by non-residents in the third quarter amid improved global market sentiment and large Initial Public Offering (IPO) activities (Table 4.A).²³

Nevertheless, such inflows were dwarfed by the sizeable outflows of debt investment by residents, which were partly driven by an increase in US bond holdings by Hong Kong banks. As a result, cross-border portfolio investment registered net outflows in the third quarter. Data based on a

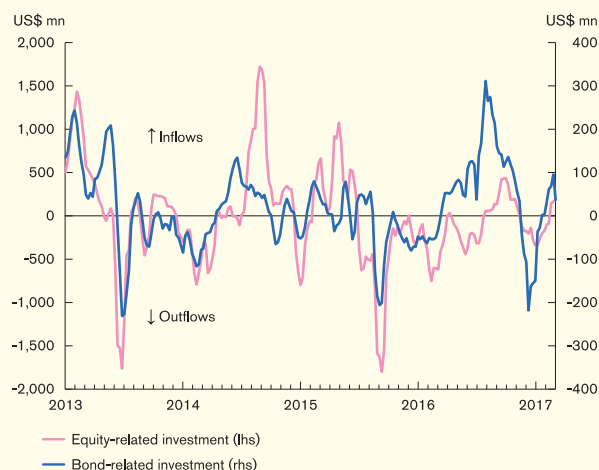
global mutual funds survey points to portfolio outflows in the last quarter of 2016, as the local financial market came under pressure along with other Asian markets amid the surprise outcome of the US presidential election and the expectation of a faster pace of US rate hikes (Chart 4.4). More recent data suggests that there were inflow pressures in the first quarter of 2017 amid a better performance across global financial markets that were boosted by the optimism of an expansionary fiscal policy in the US.

Table 4.A
Cross-border portfolio investment flows

(HK\$ bn)	2014	2015	2016		
			Q1	Q2	Q3
By Hong Kong residents					
Equity and investment fund shares	-318.2	-420.2	22.5	-45.6	-9.4
Debt securities	42.1	-241.0	111.6	-19.9	-262.1
By non-residents					
Equity and investment fund shares	136.7	-329.7	-48.5	41.4	37.2
Debt securities	75.0	20.0	-0.9	5.2	20.6

Note: A positive value indicates capital inflows.
Source: C&SD.

Chart 4.4
Market survey of equity and bond-related flows



Note: Data refer to moving four-week sums.
Source: EPFR Global.

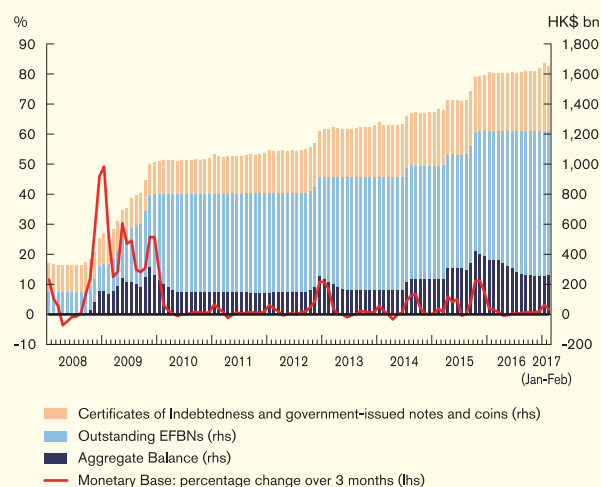
²³ At the time of writing, the fourth-quarter BoP statistics were not available yet.

Looking ahead, Hong Kong dollar fund flows may face more volatility. The possibility of faster pace of US interest rate normalisation could increase the risk of a reversal of the Hong Kong dollar fund flows. At the same time, fund flow volatility could increase amid the uncertainties surrounding the new US administration, the Brexit process and national elections in European Union member countries. Meanwhile, an increase in investment demand for Hong Kong dollar assets from Mainland investors could induce some inflow pressures on the Hong Kong dollar. In particular, while the launch of the Shenzhen-Hong Kong Stock Connect in December saw a larger north-bound trade than south-bound trade at the initial stage, two-way equity portfolio flows between Mainland China and Hong Kong through this programme is expected to increase gradually.

4.2 Money and credit

Despite the rise in US dollar interest rates and financial market volatilities, Hong Kong's monetary environment remained accommodative in the second half of 2016 and in recent months. The Hong Kong dollar Monetary Base remained sizeable, picking up further by 1.7% in the second half due to increases in Certificates of Indebtedness and Government-issued notes and coins in circulation (Chart 4.5). As the CUs were not triggered, the total of the Aggregate Balance and the outstanding Exchange Fund Bills and Notes (EFBNs) remained virtually unchanged at a high level of around HK\$1,222.7 billion. Within the total, the Aggregate Balance contracted and the outstanding EFBNs increased correspondingly as a result of the additional issuance of Exchange Fund Bills (which amounted to HK\$49 billion) to meet banks' strong demand for liquidity management.²⁴

Chart 4.5
Monetary Base components

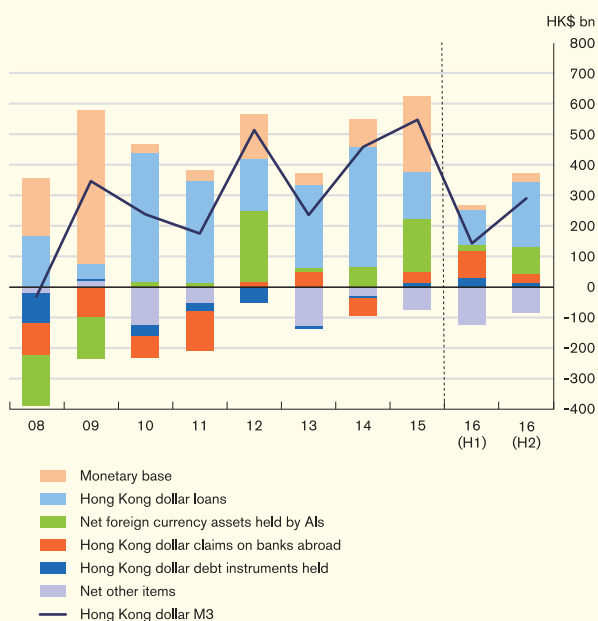


Source: HKMA.

The Hong Kong dollar monetary aggregate expanded at a faster pace as the domestic economy gathered strength. Growth in the Hong Kong dollar broad money supply (HK\$M3) accelerated from 2.3% in the first half to 6.5% in the second half. As the major component of HK\$M3, Hong Kong dollar deposits witnessed a faster 6.6% expansion in the second half (Chart 4.7), mainly underpinned by increased transaction demand amid strengthened domestic economic activities and a pick-up in IPOs. Analysed by the asset-side counterparts, the expansion of HK\$M3 mainly reflected growth in Hong Kong dollar loans and banks' net foreign currency assets (Chart 4.6), which respectively reflect money creation through credit expansion and net Hong Kong dollar inflows into the non-bank private sector.

²⁴ This is consistent with Currency Board principles, as the additional issuance of Exchange Fund Bills represents a change in the composition of the Monetary Base with a shift from the Aggregate Balance to the outstanding EFBNs. The Monetary Base remains fully backed by foreign exchange reserves.

Chart 4.6
Changes in the HK\$M3 and the asset-side counterparts

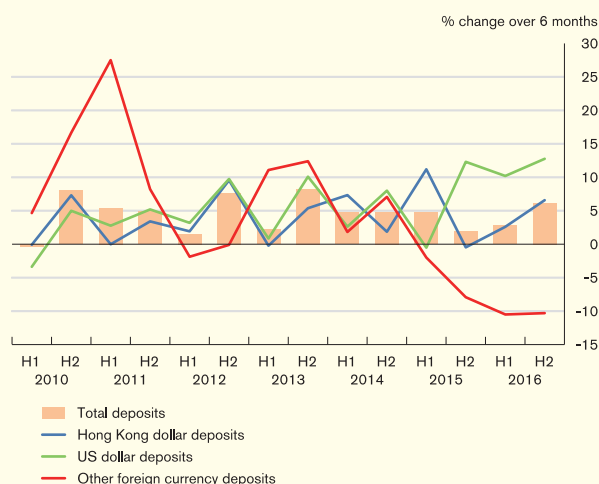


Note: The HK\$M3 in the monetary survey has been adjusted to include foreign currency swap deposits and to exclude government deposits and Exchange Fund deposits with licensed banks.

Source: HKMA staff estimates.

On the other hand, growth in foreign currency deposits continued to show mixed performance. After picking up by 10.2% in the first half, US dollar deposits recorded an even stronger increase of 12.8% in the second half amid the broad strength of the US dollar (Chart 4.7). In contrast, other foreign currency deposits contracted further by 10.3%, mainly led by the decline in renminbi deposits. Overall, total deposits with the AIs expanded faster by 6.2% in the second half of 2016, and 9.1% for the whole year.

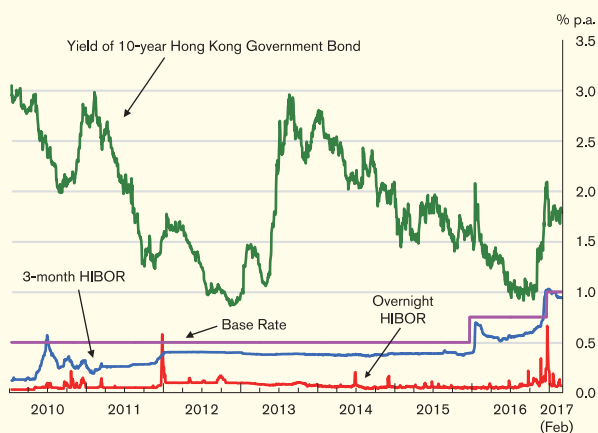
Chart 4.7
Deposit growth



Source: HKMA.

Amid the expected US interest rate normalisation, banks' wholesale funding costs increased somewhat during the fourth quarter of 2016. While still relatively low by historical standards, the Hong Kong dollar interbank rates picked up in part underpinned by the year-end funding demand as well as catching up with increases in the US interbank rates. During the second half, the overnight and the three-month Hong Kong Interbank Offered Rate (HIBOR) fixings moved up by 54 and 46 basis points to 0.66% and 1.02% respectively (Chart 4.8). Likewise, the Hong Kong dollar yield curve shifted upwards along with the US dollar yield curve, with the yield of the 10-year Hong Kong Government Bond rising by about 90 basis points to 1.93% at the end of December. Moving into early 2017, Hong Kong dollar interbank rates generally decreased amid a decline in funding demand while the yield of the long-dated Hong Kong Government Bond also edged down alongside the movement in the US counterpart.

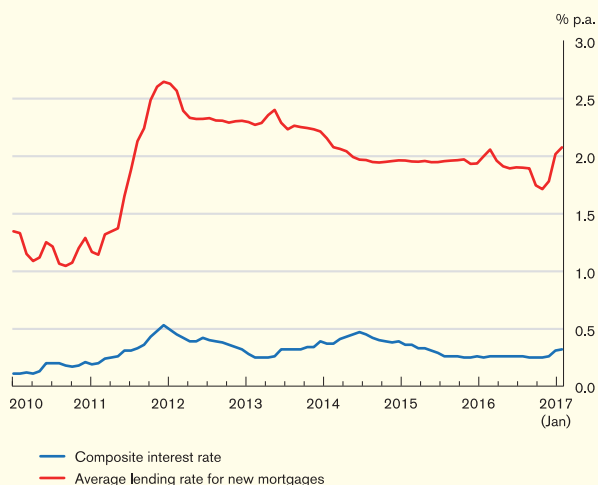
Chart 4.8
Hong Kong dollar interbank interest rates and yield of the 10-year Government Bond



Source: HKMA.

With a large deposit base in the banking system, increases in retail-level interest rates were relatively small. Banks' average funding costs (as indicated by the composite interest rate) continued to stay low, only edging up by six basis points from seven months ago to 0.32% in January 2017 (Chart 4.9). With relatively stable funding costs and keener competition in the mortgage business, banks' average lending rate for new mortgages declined to a recent low of 1.71% in October 2016, before rebounding to 2.07% in January 2017 along with the rise in HIBORs.

Chart 4.9
The composite interest rate and the average lending rate for new mortgages

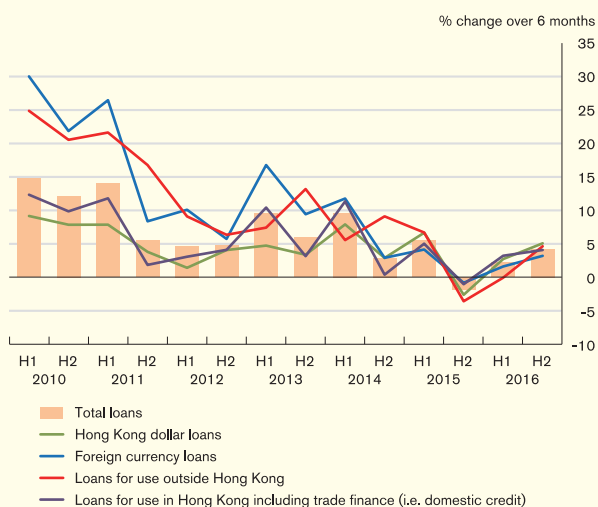


Sources: HKMA and staff estimates.

Looking ahead, the pace of the increase in domestic interest rates will depend on the speed of the US interest rate normalisation process, the size of fund outflows, and global macro-financial development. The upward pressures on domestic interest rates, together with the appreciation of the Hong Kong dollar REER alongside its US dollar counterpart, could make domestic financial conditions less favourable. Box 4 discusses the compilation of the financial conditions indexes for Hong Kong which can be used to monitor domestic financial conditions.

Amid strengthened domestic economic activities and increased cross-border funding demand, total loans picked up further by 4.2% in the second half after increasing by 2.2% in the preceding half-year period (Chart 4.10). With the economic growth momentum holding up, growth in domestic loans quickened slightly from 3.2% in the first half to 4.0% in the second half. Loans for use outside Hong Kong rebounded by 4.6% after recording a slight decline in the first half, partly reflecting a rise in funding demand by multinational corporations towards the end of the year. Analysed by currency, Hong Kong dollar loans expanded strongly by 5.0% during the second half, and foreign currency loans also grew moderately by 3.2% amid the tapering of foreign currency loan repayments by Mainland borrowers. For the whole of 2016, total loans expanded moderately by 6.5% compared with 3.5% in 2015.

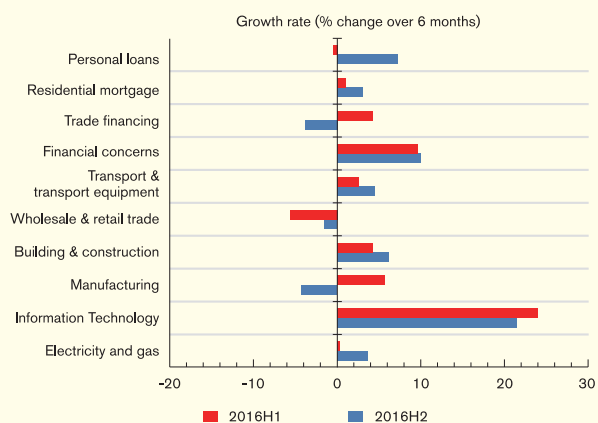
Chart 4.10
Loan growth



Source: HKMA.

Domestic lending by sector showed rather mixed performance in the second half (Chart 4.11). Loans to financial concerns and information technology posted double-digit growth in the second half, to some extent reflecting strong funding needs amid better growth prospects for these sectors. Loans to building, construction and property development also witnessed faster expansion along with increased private construction activities. On the other hand, trade finance and loans to manufacturing, wholesale and retail trade declined despite signs of improvement in merchandise trade and retail sales.

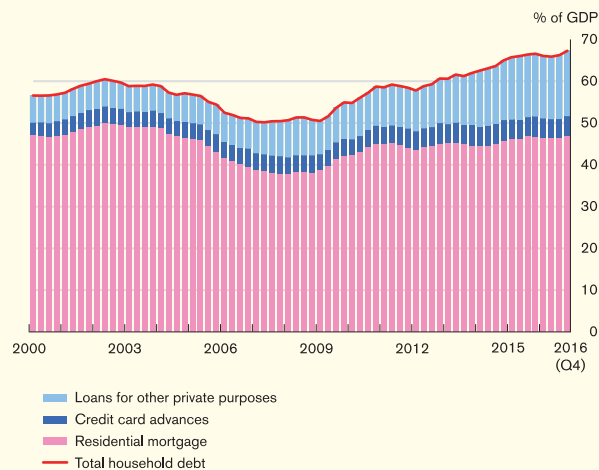
Chart 4.11
Growth in domestic loans by selected sectors



Source: HKMA.

Household debt grew faster by 4.3% in the second half, compared with 0.5% in the first half. Within household debt, personal loans (which comprise credit card advances and loans for other private purposes) bounced up by 7.2% on the back of the improved economic environment (Chart 4.11), and residential mortgage loans grew faster by 3.1% mainly reflecting buoyant housing transactions between July and October. As a result, the household debt-to-GDP ratio picked up to 67.2% in the fourth quarter of 2016 from 65.8% in the second quarter (Chart 4.12).

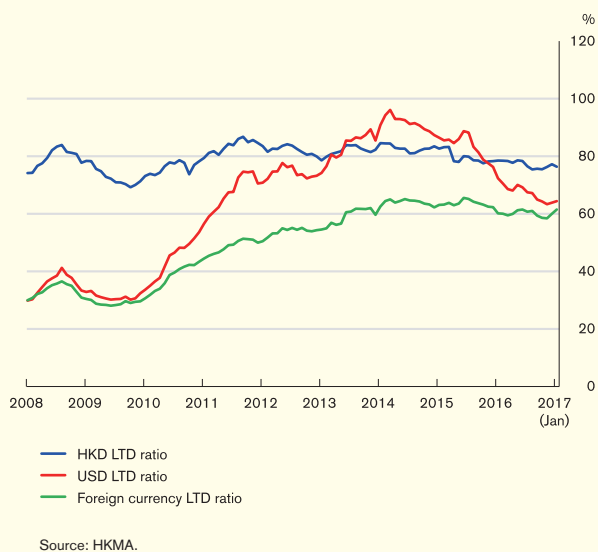
Chart 4.12
Household debt-to-GDP ratio and its components



Note: Only borrowings from AIs are covered.
Source: HKMA.

Banks' funding conditions remained largely stable. Reflecting faster increases in deposits relative to loans, the Hong Kong dollar loan-to-deposit (LTD) ratio edged down from 78.2% at the end of June to 77.1% at the end of 2016 (Chart 4.13). Meanwhile, the overall foreign currency LTD ratio declined from 61.4% to 59.9% at the end of the year, with the US dollar LTD ratio dropping significantly to 63.8% due to the strong increase in US dollar deposits.

Chart 4.13
LTD ratios



In the coming period, credit growth is subject to uncertainties stemming from the expectation of interest rate hikes and rapidly changing macro-financial environments. According to the HKMA Opinion Survey on Credit Condition Outlook, credit demand is expected to remain soft in the near term.

Offshore renminbi banking business

The offshore (CNH) and the onshore (CNY) renminbi exchange rate weakened amid the US dollar appreciation (Chart 4.14). The CNH exchange rate mostly traded at a discount against its onshore counterpart in the latter part of 2016, and closed at the year-low of 6.98 against the US dollar at the end of 2016. Tightening liquidity pressure in the CNH interbank market re-emerged in December in part reflecting worsened financial market conditions and banks' precautionary funding demand ahead of the year end (Chart 4.15). With banks hoarding more liquidity buffer amid weak market sentiment, the overnight CNH HIBOR fixing once climbed to 61.3% on 6 January 2017. With the higher CNH funding costs subsequently causing the unwinding of short CNH positions, the CNH exchange rate rebounded in early January 2017 with the CNH-CNY spread turning to a premium. Since mid-January, the CNH and CNY exchange

rate stabilised somewhat and the liquidity conditions gradually improved, with the overnight and the three-month CNH HIBOR fixings dropping to 2.00% and 4.61% respectively at the end of February 2017.

Chart 4.14
Onshore and offshore renminbi exchange rates

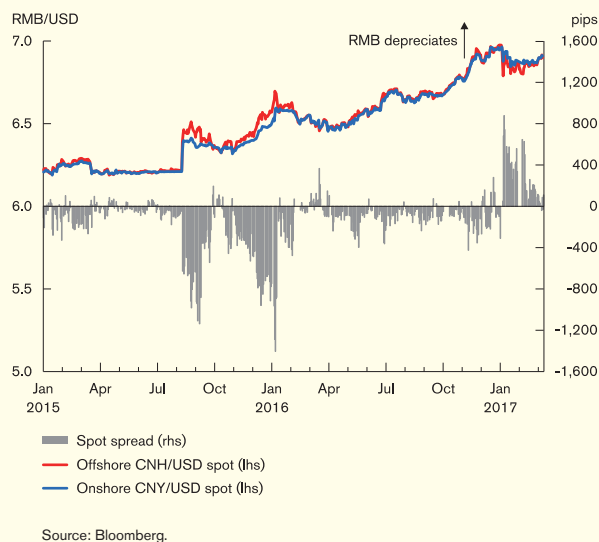
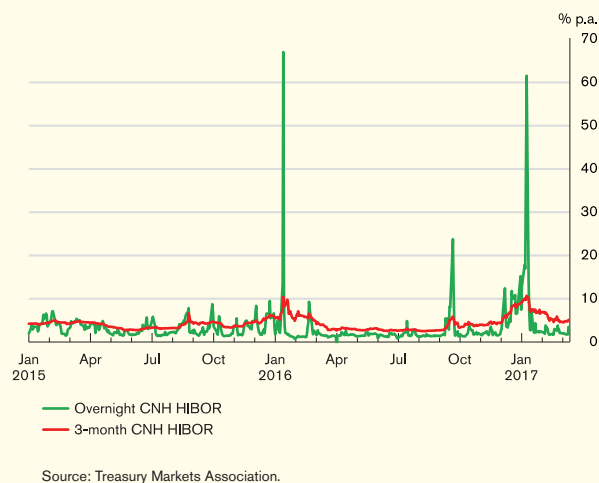


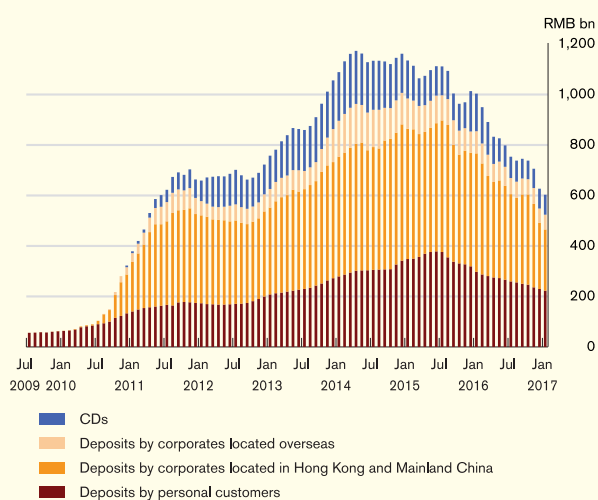
Chart 4.15
The overnight and the three-month CNH HIBOR fixings



Amid uncertainty in the renminbi exchange rate outlook, the total outstanding amount of renminbi customer deposits and certificates of deposit (CDs) fell further by 21.5% from six months earlier to RMB625.1 billion at the end of 2016 (Chart 4.16 and Table 4.B). Among the total, renminbi customer deposits registered a 23.2% decrease, with corporate customer deposits

declining at a faster pace than personal customer deposits. On the other hand, the pace of decline in the outstanding CDs narrowed from 46.8% in the first half to 7.5% in the second half. With tightened interbank liquidity, some retail banks have raised their preferential renminbi deposit rates to attract deposit funding.

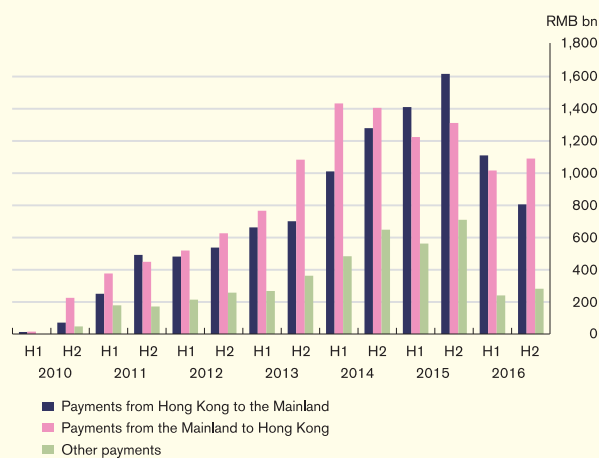
Chart 4.16
Renminbi deposits and CDs in Hong Kong



Source: HKMA.

Despite the contraction of the renminbi liquidity pool, banks' renminbi liquidity management remained robust, and the size of the pool is adequate to support a large amount of renminbi payments and financial transactions. As such, the average daily turnover of the renminbi real time gross settlement (RTGS) system stayed high at RMB863.6 billion in 2016. During the second half, the outstanding amount of renminbi bank loans resumed an expansion of 2.6% after consolidating in the first half. On the other hand, renminbi trade settlement transactions handled by banks in Hong Kong totaled RMB2,176.9 billion in the second half, down 8.0% from the first half. Although outward trade remittances to Mainland China continued to decline, other trade remittance (including inward trade remittance from Mainland China to Hong Kong and remittance among offshore markets passing through Hong Kong) resumed moderate growth (Chart 4.17).

Chart 4.17
Flows of renminbi trade settlement payments



Source: HKMA.

The renminbi liquidity pool in Hong Kong is expected to remain overshadowed by the uncertainty in the renminbi exchange rate movements. Nevertheless, Hong Kong's offshore renminbi business will continue to be supported by the demand for renminbi-denominated assets following the inclusion of the renminbi into the International Monetary Fund's Special Drawing Rights basket. Through increasing the international use of the renminbi in infrastructure investment and financing, the Belt and Road Strategy can also bring new opportunities to Hong Kong.²⁵

Table 4.B
Offshore renminbi banking statistics

	Dec 2015	Dec 2016
Renminbi deposits & certificates of deposit (CDs) (RMB bn)	1,010.4	625.1
Of which:		
Renminbi deposits (RMB bn)	851.1	546.7
Share of renminbi deposits in total deposits (%)	9.3	5.2
Renminbi certificates of deposit (CDs) (RMB bn)	159.3	78.3
Renminbi outstanding loans (RMB bn)	297.4	294.8
Number of participating banks in Hong Kong's renminbi clearing platform	217	210
Amount due to overseas banks (RMB bn)	105.7	69.0
Amount due from overseas banks (RMB bn)	132.1	91.6
	2015	2016
Renminbi trade settlement in Hong Kong (RMB bn)	6,833.1	4,542.1
Of which:		
Inward remittances to Hong Kong (RMB bn)	2,535.1	2,106.1
Outward remittances to Mainland China (RMB bn)	3,026.3	1,915.2
Turnover in Hong Kong's RMB RTGS system (Daily average during the period; RMB bn)	947.0	863.6

Source: HKMA.

²⁵ The HKMA has established the Infrastructure Financing Facilitation Office to facilitate infrastructure investments and their financing by working with a cluster of key stakeholders.

Box 4 Financial conditions indexes for Hong Kong

Hong Kong's financial conditions could tighten in view of challenges from the external environment over multiple fronts. Hong Kong dollar interest rates may rise again given the expected US rate hikes this year. Further strengthening of the US dollar may also buoy the Hong Kong dollar real effective exchange rate alongside, while market sentiment could deteriorate in response to adverse economic or geopolitical events. This box introduces the financial conditions indexes (FCIs) for Hong Kong to help provide an overall assessment of domestic financial conditions.

Compilation of the financial conditions indexes

To construct FCIs, most studies use the weighted-sum (WS) approach and/or the principal component (PC) approach.²⁶ The former approach weighs the financial variables by its estimated impact on real activity in a vector autoregressive (VAR) model. This approach could take into account the interactions among variables, but there are limitations on the number of component variables. The latter approach weighs through finding the PC of a large, selected set of financial variables. The set of variables could be unlimited, but the method does not account for the interactions among the input variables. We use both techniques to cross check the robustness of the estimated FCIs.

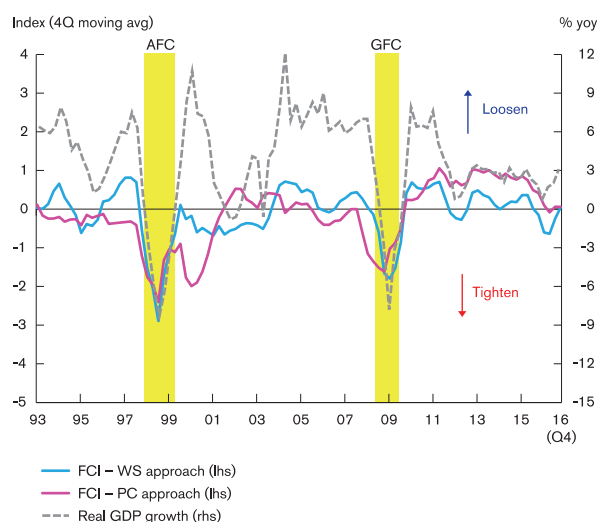
Under the WS approach, the component financial variables include the 3-month Hong Kong Interbank Offered Rate (HIBOR), residential property prices, the Hang Seng Index (HSI), the volatility of the HSI, Hong Kong Dollar real effective exchange rate, Hong Kong Dollar domestic loans, and the spread of the 3-month HIBOR over the yield of the 3-month Exchange

Fund Bill. On the PC approach, in light of its ability in extracting information from a large set of variables, we expand the list of the component financial variables to also include indicators such as term spreads and credit spreads, which are predictive of future economic activity and can measure counterparty and credit risks.²⁷

Broad features of the financial conditions indexes

Chart B4.1 shows the constructed FCIs under the two approaches, with a higher value of the FCI representing a loosening of financial conditions, and vice versa. To facilitate comparison, the FCIs are normalised with its standard deviation being equal to one. Hong Kong's real GDP growth is also shown in the chart for reference.

Chart B4.1
FCIs and real GDP growth



Sources: C&SD and HKMA staff estimates.

²⁶ See IMF (2015), Regional Economic Outlook: Asia and Pacific, April 2015 and Osorio et al. (2011), "A Quantitative Assessment of Financial Conditions in Asia", IMF Working Paper 11/170, 2011.

²⁷ For more details on the variables selection and the methodology, see Chan et al. (2016), "Financial Conditions Indexes for Hong Kong", HKMA Research Memorandum 09/2016.

Despite some occasional divergences, the FCIs constructed under the two different methodologies broadly share similar patterns. In particular, both indexes indicate a material tightening of financial conditions during the Asian Financial Crisis and the Global Financial Crisis, with the magnitude of the tightening being broadly similar. Both FCIs also show that financial conditions loosened after the implementation of quantitative easing in the US, before tightening momentarily in late 2011 amid a deepening of the European sovereign debt crisis.

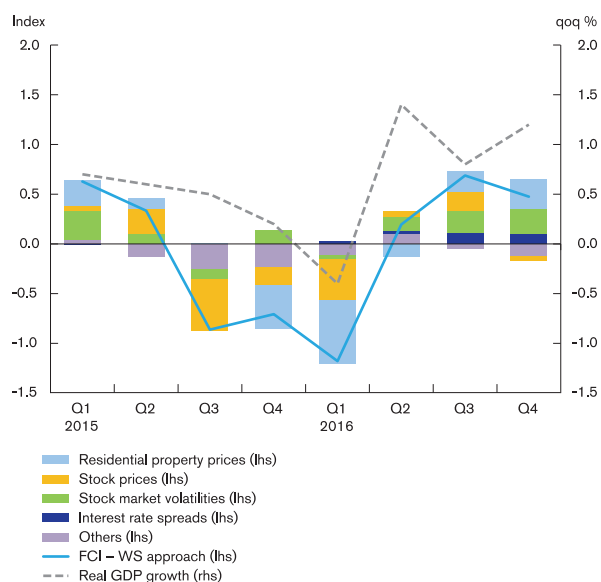
Decomposition analysis shows that the sharp plunges in the FCIs during crisis periods were mainly driven by movements in asset prices and volatilities, reflecting the ability of the asset markets to signal sharp changes in future economic activity. During tranquil periods, property prices contributed strongly to the dynamics of the FCIs, reflecting the strong influence of the property market on the real economy.²⁸ Interest rate spreads could also be important drivers of financial conditions during both crisis and tranquil periods.

In assessing their forecasting power for real GDP growth against standard statistical models, we find that the FCIs have stronger forecasting power up to two quarters ahead.²⁹ Hence, they could aid our macro-financial surveillance of the Hong Kong economy by providing a quick assessment of the impact of major financial disturbances on the real economy.

Recent developments in the financial conditions indexes and their implications for the economic outlook

Amid concerns over US rate hikes and the change to the renminbi fixing mechanism, financial conditions tightened in the third quarter of 2015 along with gyrations in domestic asset markets (Charts B4.2 and B4.3). Financial conditions began to improve in the second quarter of 2016 amid stabilisation of global financial markets. In particular, following the UK's referendum on Brexit, stock market volatilities were generally subdued in the third quarter as market sentiment improved, while asset prices were supported by the expectation of still-abundant global liquidity. Despite rises in Hong Kong dollar interbank rates, financial conditions remained steady in the last quarter of 2016, mainly due to subdued stock market volatilities and the pick-up in property prices.

Chart B4.2
Contribution to changes in FCI – WS approach

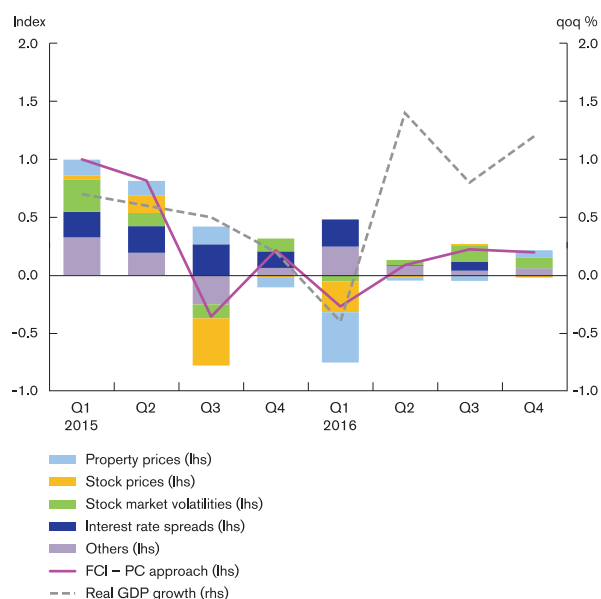


Source: HKMA staff estimates.

²⁸ See Cheung et al. (2016), "Inflation Mechanism and Monetary Policy Perspectives from Hong Kong", *BIS Papers No 89*.

²⁹ For more details about the forecasting power assessment, see Chan et al. (2016), "Financial Conditions Indexes for Hong Kong", *HKMA Research Memorandum 09/2016*.

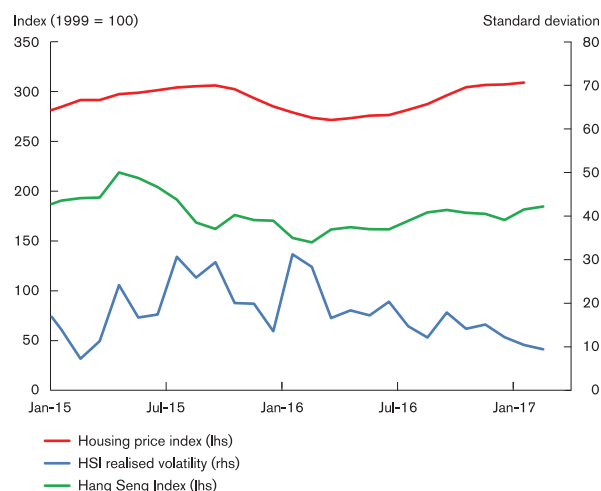
Chart B4.3
Contribution to changes in FCI – PC approach



Source: HKMA staff estimates.

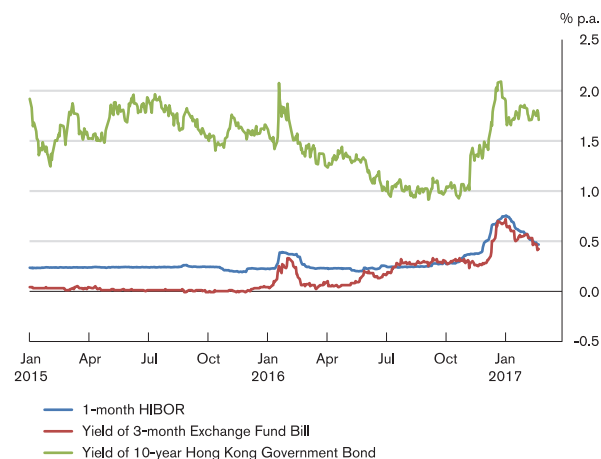
While the reading of the FCIs for the first quarter of 2017 is not yet available, high-frequency releases suggest that Hong Kong’s financial conditions may remain stable during the quarter. On one hand, Hong Kong’s housing prices have been growing at a moderated pace after the introduction of the new stamp duty measures, and that equity prices and volatilities have become more favourable. On the other hand there could be upward pressures on domestic interest rates due to the US rate hike in March (Charts B4.4 and B4.5).

Chart B4.4
Property prices, HSI and its realised volatility



Sources: R&VD, HKEx and HKMA staff estimates.

Chart B4.5
Hong Kong dollar interest rates and yields



Source: HKMA.

Conclusion

Hong Kong’s financial conditions are not expected to be a drag on real GDP growth in the first half of 2017, given there were no signs of a notable tightening in recent quarters. However, with the prospect of further US rate hikes and potential asset market volatilities, close monitoring is warranted.

Asset markets

Hong Kong equity prices rose sharply towards the end of the review period with more positive signs from the US economy and improved market sentiment globally. However, optimism in the local market was more guarded possibly due to increased expectations of faster rate hikes and a challenging outlook for the Mainland economy. The Hong Kong dollar debt market maintained steady growth, while the offshore renminbi debt market continued to contract in 2016. The residential property market showed signs of consolidation immediately after the introduction of the new stamp duty measure before picking up more recently.

4.3 Equity market

Riding on the back of a global equity rally, the local stock market ended sharply higher towards the end of the period under review. While the US presidential election result caught most investors off guard, confidence was quickly restored amid hopes of a fiscal stimulus under the Trump administration. The US Federal Reserve's (Fed) upward revision of economic projections reinforced a more positive outlook for 2017, adding impetus to the US and other major markets towards the end of the review period. Although the Hong Kong market underperformed most of the major markets, it rose with the tide, once breaking the upper bound of the recent trading range. The fact that optimism was more guarded in the local market may be due to concerns of a faster pace of rate hikes in the US and an increasingly challenging economic outlook for Mainland China. Policy uncertainties surrounding the renminbi and capital flow restrictions also reduced investor appetite for Mainland enterprises, which accounted for 63% of the local market capitalisation at the end of 2016.³⁰ The Shenzhen-Hong Kong Stock Connect launched in early December, a crucial milestone for the

long-term development of the market, also failed to boost market sentiment. Overall, the Hang Seng Index (HSI) and the Hang Seng China Enterprises Index (HSCEI), also known as the H-share index, increased by 3.3% and 7.9% respectively from September 2016 to February 2017, with the option implied volatility of the HSI (VHSI) staying at relatively low levels (Charts 4.18 & 4.19).

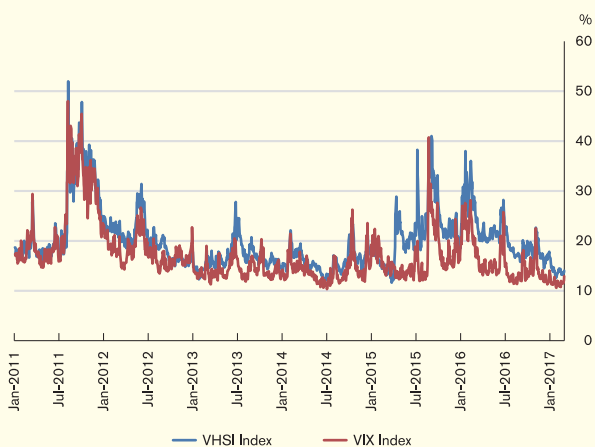
Chart 4.18
Equity prices in Hong Kong



Source: Bloomberg.

³⁰ Mainland enterprises refer to H-share companies, red chip companies and Mainland private enterprises.

Chart 4.19
Option-implied volatilities of the HSI and S&P 500



Source: Bloomberg.

The Hang Seng China AH Premium Index, which measures the price discrepancy between stocks listed in the Mainland and Hong Kong markets, remained tangible during the review period. The notable gap of equity valuation between the two markets could potentially be attributable to disparities in the equity valuation between Mainland and Hong Kong investors. And this could be related more to the latest uncertainties over the Mainland economy (Chart 4.20).³¹

Chart 4.20
Hang Seng China AH Premium Index

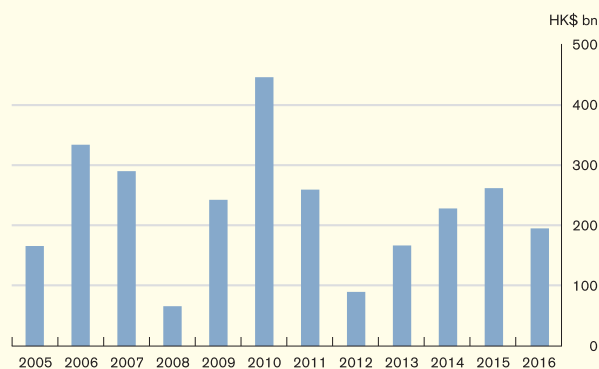


Source: Bloomberg.

³¹ See Chung, Hui and Li (2013) “Explaining share price disparity with parameter uncertainty: Evidence from Chinese A- and H-shares”, *Journal of Banking and Finance*, 37 (2013) pp1073–1083.

In 2016, the Hong Kong Stock Exchange outperformed its major rivals and remained the world’s largest listing market for the second consecutive year. Amid heightened economic and political uncertainties, global IPO markets saw a significant fall in activities during the year, with total proceeds decreasing by 31% to US\$131.1 billion.³² However, funds raised through IPOs in Hong Kong, while also registering a decline to HK\$194.8 billion, were only 26% lower than in the previous year (Chart 4.21).

Chart 4.21
The IPO market in Hong Kong

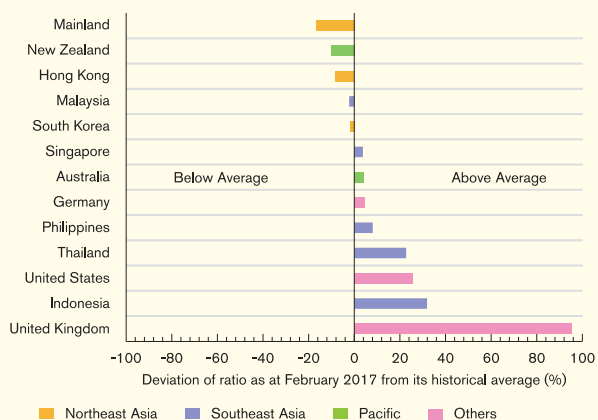


Sources: CEIC and HKEx.

The local equity market is expected to be highly susceptible to external market conditions in the period ahead. While its valuations remain attractive, the outlook is clouded by uncertainties over the Mainland economy as well as risks of heightening tensions between Mainland China and the US (Chart 4.22). Despite the recent positive signs of a recovery in the global economy, a tightening of monetary conditions as a result of an increased pace of interest rate normalisation could lead to a higher refinancing risk for the corporate sector, bringing more uncertainties to the market.

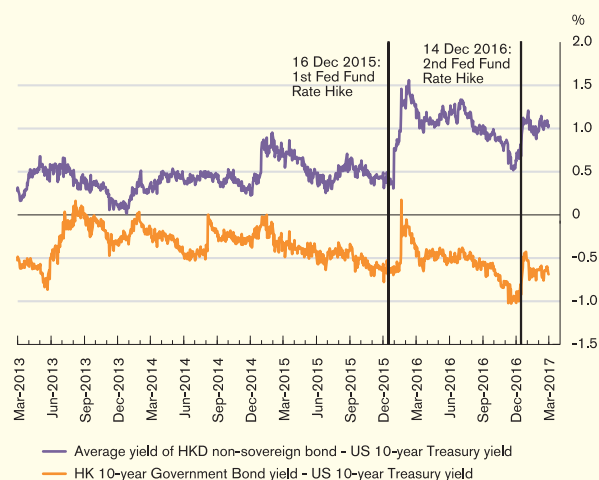
³² Thomson Reuters (2016) “Global Equity Capital Markets Review”.

Chart 4.22
Price-earnings ratios of Asia Pacific (excluding Japan) and other major markets



Sources: Bloomberg and HKMA staff estimates.

Chart 4.23
HK dollar yield spreads with the US 10-year Treasury yield



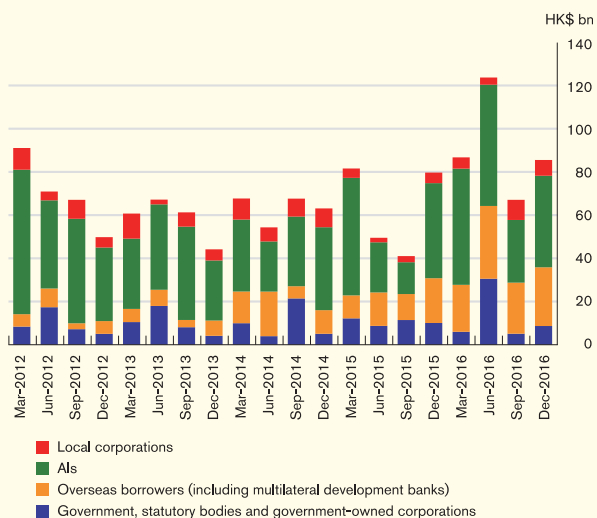
Sources: HKMA, Bank of America Merrill Lynch and Bloomberg.

4.4 Debt market

The Hong Kong dollar debt market expanded steadily over the course of 2016, until yields increased sharply towards the end of the year, as the Fed increased interest rates for the second time in the current cycle. In the wake of an improved growth outlook and heightened inflation risk, markets generally expect that the pace of monetary normalisation will pick up in the US. Against this backdrop, selling pressure emerged in bond markets globally and Hong Kong was no exception. Indeed, the rise in domestic bond yields was much steeper, with the spreads of sovereign and non-sovereign debts over US Treasuries both shooting up at the turn of the year. This was reminiscent of the surge in yield spreads in early 2016 that were also similarly triggered by heightened expectations of US rate hikes (Chart 4.23).

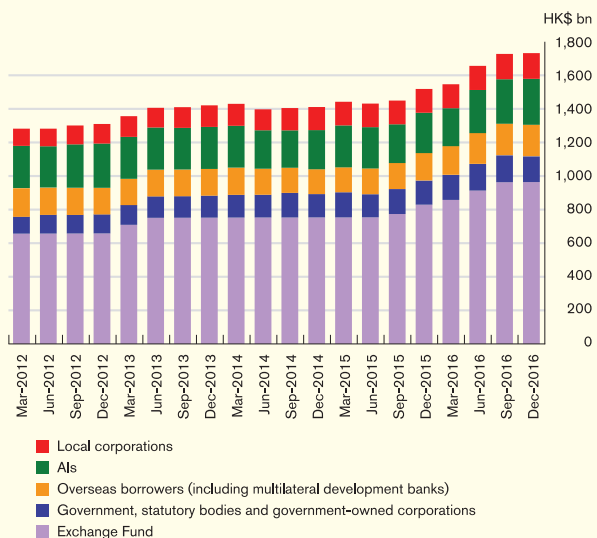
However, apart from the year-end yield rebound, market development was smooth and steady in 2016. Total debt issuance increased by 22.4% to HK\$3,052.6 billion, with overseas borrowers including multilateral development banks (MDBs) issuing HK\$47.4 billion or 80.5% more than the year before (Chart 4.24). As a result of the growth in new issuance, the total amount of Hong Kong dollar debt outstanding rose by 14.1% to HK\$1,730.6 billion at the end of 2016 (Chart 4.25). The Exchange Fund remains the largest contributor to the growth, with outstanding debt rising by 16.3% to HK\$963.1 billion, followed by AIs and overseas borrowers including MDBs whose outstanding debt increased by 13.7% and 15.2% to HK\$273.1 billion and HK\$188.1 billion respectively.

Chart 4.24
New issuance of non-Exchange Fund Bills and Notes Hong Kong dollar debt



Source: HKMA.

Chart 4.25
Outstanding Hong Kong dollar debt

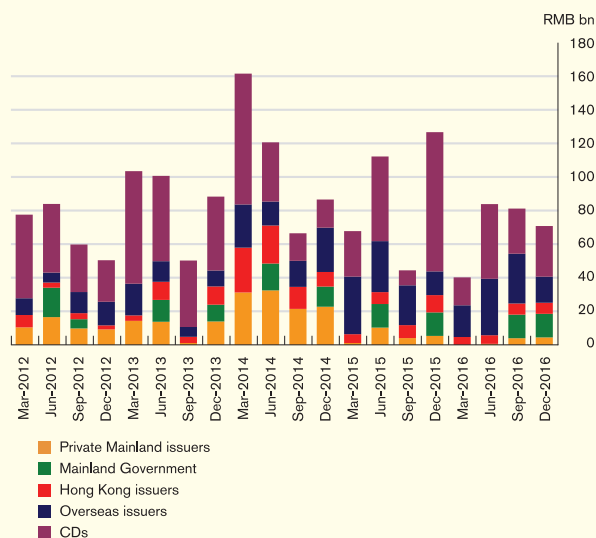


Source: HKMA.

The development of the offshore renminbi debt market in Hong Kong recovered in the second half of 2016 after the contraction in the first half, mainly driven by an increase in issuance by overseas issuers. Throughout 2016, offshore renminbi debt issuance amounted to RMB275.7 billion, declining by 21.4% year on year (Chart 4.26). In particular, private Mainland issuers saw their issuance of non-CD debt securities decrease by 56.6% to RMB9.0 billion in

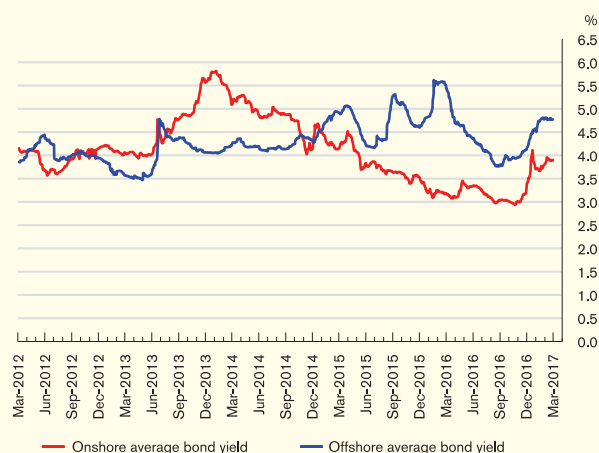
2016, partly attributable to the relatively lower funding cost onshore (Chart 4.27). New non-CD debts of Hong Kong and overseas issuers also fell by 24.1% and 4.7% to RMB23.1 billion and RMB97.5 billion respectively.

Chart 4.26
New issuance of offshore renminbi debt securities



Sources: Newswires and HKMA staff estimates.

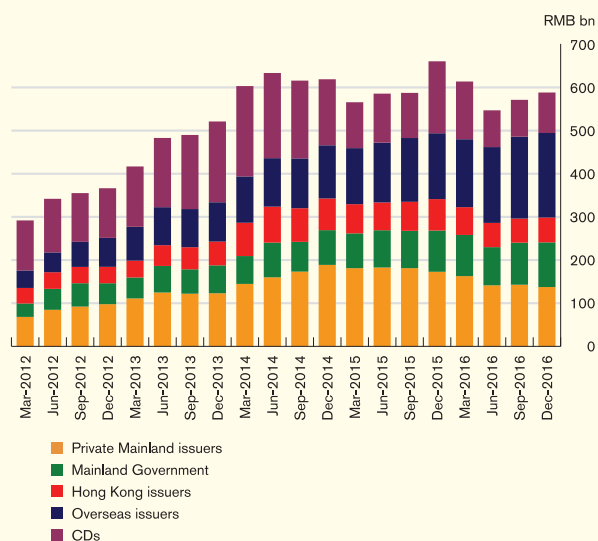
Chart 4.27
Average yields of onshore vs. offshore renminbi bond indices



Sources: Bloomberg, Hang Seng Indexes Company Ltd, and China Central Depository & Clearing Co., Ltd.

With the decline in debt issuance, the outstanding amount of offshore renminbi debt securities in Hong Kong contracted by 11.0% year on year to RMB587.4 billion at the end of 2016, whereas the non-CD outstanding debt edged up by 0.1% to RMB493.7 billion (Chart 4.28). Overseas issuers saw their outstanding non-CD renminbi debts in Hong Kong continue the upward trend, growing by 28.3% from the end of 2015 to RMB195.5 billion. This, together with the 8.4% or RMB8.0 billion increase by the Mainland Government, more than offset the decrease in non-CD debt outstanding by private Mainland and Hong Kong issuers, which shrank by 20.5% and 21.1% to RMB137.3 billion and RMB57.4 billion respectively.

Chart 4.28
Outstanding amount of offshore renminbi debt securities



Sources: Newswires and HKMA staff estimates.

With increasing expectations of a faster pace of US rate hikes, emerging market assets, including the Hong Kong dollar and offshore renminbi debts may come under more pressure if the earlier global search-for-yield phenomenon is reversed. The renminbi exchange rate is also likely to remain volatile amid the uncertainties surrounding US trade policies under the Trump administration. Against this backdrop, there

may be more bumpy rides ahead for both the Hong Kong dollar and offshore renminbi debt markets.

4.5 Property markets

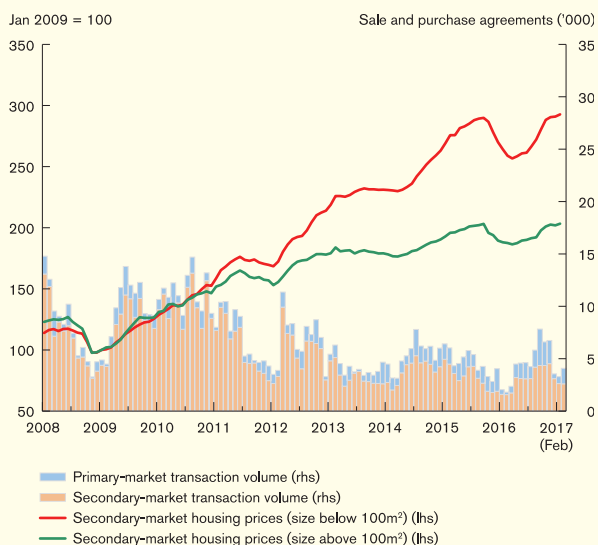
Residential property market

The residential property market showed renewed signs of exuberance in the second half of 2016, prompting the Government to introduce new stamp duty measure³³ in November. Average monthly housing transactions increased markedly from 3,320 units in the first half of the year to 6,123 units during July – October (Chart 4.29). This partly reflected improved market sentiment, declines in mortgage rates, and more new property launches in the primary market along with various promotional schemes to attract buyers. Housing prices in the secondary market also rose strongly, with prices of small and medium-sized flats (with a saleable area of less than 100m²) seeing a quicker pace of increase than large flats (with a saleable area of at least 100m²). In response to the renewed market buoyancy, the Government announced a new stamp duty measure on 4 November.

Immediately following its introduction, the housing market showed some signs of consolidation. Average monthly secondary market transactions decreased by around 30%, from 4,410 units during September – November to about 2,800 units in the subsequent two months, due in part to the cautious attitude of both buyers and sellers. Primary market transactions also declined visibly in December. Nevertheless, total market transactions picked up more recently partly reflecting the increase in new launches by property developers. Meanwhile, housing prices continued to increase to a new high after the new measure, but at a more moderate pace.

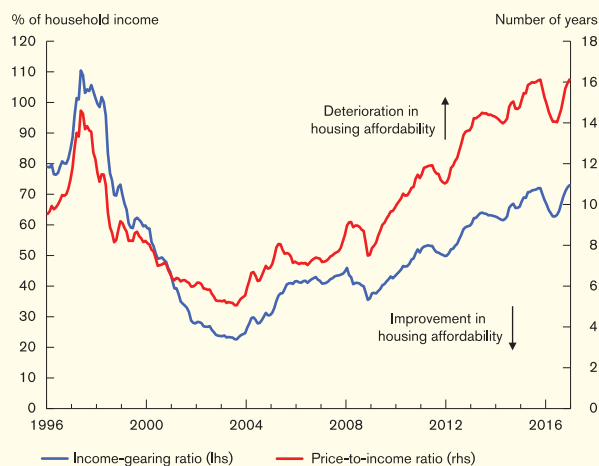
³³ More specifically, the Government raised stamp duty to a flat rate of 15%, effective from 5 November, for all residential property transactions (except for purchase by Hong Kong permanent resident first home buyers).

Chart 4.29
Residential property prices and transaction volume



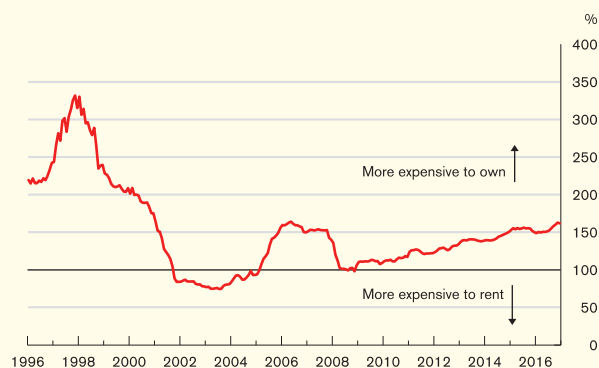
Sources: Rating and Valuation Department (R&VD) and Land Registry.

Chart 4.30
Indicators of housing affordability



Sources: R&VD, C&SD and HKMA staff estimates.

Chart 4.31
Buy-rent gap



Note: This indicator is calculated as the ratio of the cost of purchasing and maintaining a 50m² flat with that of renting it.
Sources: R&VD, C&SD and HKMA staff estimates.

Housing affordability remained stretched, with the housing price-to-income ratio rising to 15.9 in the fourth quarter, higher than the 1997 peak of 14.6. The income-gearing ratio also climbed to 72.0%, much higher than the long-term average of about 50% (Chart 4.30).³⁴ While remaining at low levels, mortgage rates edged up towards the end of 2016 owing to the increase in Hong Kong dollar interbank interest rates. As housing prices trended up, but the residential rental yields stayed low at 2 – 3% in the second half of 2016, the buy-rent gap as a measure of relative user costs widened to a recent high of 161.6% (Chart 4.31).³⁵

³⁴ The price-to-income ratio measures the average price of a typical 50m² flat relative to the median income of households living in private housing. Alternately, the income-gearing ratio compares the amount of mortgage payment for a typical 50m² flat (under a 20-year mortgage scheme with a 70% loan-to-value (LTV) ratio) to the median income of households living in private housing. The income-gearing ratio is not the same as a borrower's actual debt-servicing ratio (DSR), which is subject to a maximum cap by the HKMA prudential measures.

³⁵ The buy-rent gap estimates the cost of owner-occupied housing (under a 20-year mortgage scheme with a 70% LTV ratio) relative to rentals.

The countercyclical macro-prudential measures introduced by the HKMA since 2009 helped contain household leverage and safeguard banks' resilience. The average LTV ratio for new mortgages declined to 50.1% in January 2017 from 64% before the measures were first introduced, and the DSR also decreased by about 8 percentage points to 33.0%.

The outlook for the residential property market remains highly uncertain. In the near term, the still-low mortgage interest rates, stable job and income conditions and the release of pent-up demand amid increasing incentives offered by property developers such as discounts and cash

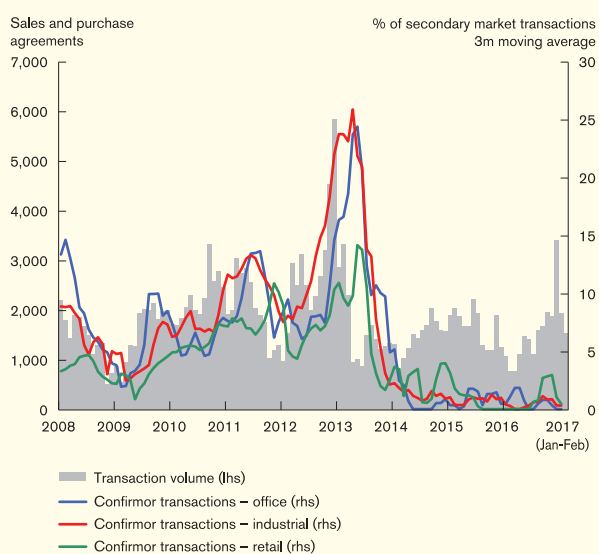
Monetary and financial conditions

rebates could render support to housing demand. On the other hand, the new stamp duty measure, possible pick-up in the pace of US rate hikes and the steady catch-up in housing supply may continue to pose headwinds to the housing market. Nonetheless, with the macro-prudential measures and other supervisory measures in place, Hong Kong's banking sector has improved its resilience and is well prepared to cope with the potential risks associated with the property market.

Non-residential property market

Reflecting improved market sentiment, activities in the non-residential property market have shown signs of picking up since mid-2016. After falling to a recent low of 1,108 units in the first half of 2016, the average monthly transaction volume increased to 1,890 units in the subsequent eight months, with a sharp spike in December mainly due to the strong sales in parking spaces (Chart 4.32). That said, speculative activities, as indicated by confirmor transactions, remained inert.

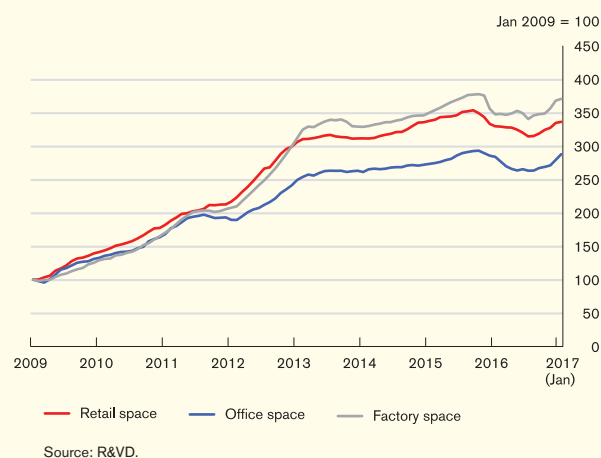
Chart 4.32
Transactions in non-residential properties



Sources: Land Registry and Centaline Property Agency Limited.

Alongside more transactions, prices of office space, retail premises and flatted factories increased by 8.4%, 5.0% and 6.1% respectively in the seven months to January 2017, following some consolidation in the preceding half year period (Chart 4.33). Rentals of office space and flatted factories also recorded modest increases from mid-2016, while rentals of retail space consolidated further. The overall rental yields across segments remained steadily low at around 2.5 – 3.4%.

Chart 4.33
Non-residential property price indices



Source: R&VD.

The non-residential property market faces uncertainties from the global macro-financial environment, domestic economic growth prospects and the pace of interest rate rises. Meanwhile, the performance of individual market segments is expected to be mixed. For example, rising office supply, especially in areas outside Central, will further restrain upside in the office segment. The normalisation of retail sales from the extraordinary growth in earlier years will continue to drag on prime-location retail rentals. In contrast, investment interests in parking spaces and industrial properties may remain strong following the new stamp duty measure on the residential property market.