4. Monetary and financial conditions

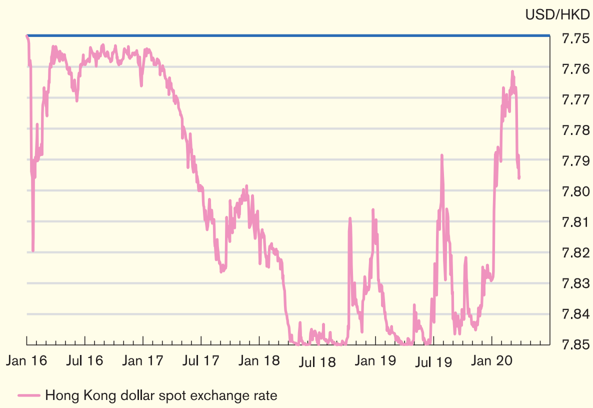
The Hong Kong dollar exchange rate strengthened from October and gained further momentum in December with the exchange rate staying at the strong side of the Convertibility Zone in recent months. The strong demand for Hong Kong dollars was partly due to equity-related demand, and partly to the unwinding of short Hong Kong dollar positions amid tightened liquidity towards year-end. Overall, Hong Kong foreign exchange and money markets continued to operate in a smooth and orderly manner. While market sentiments over the coronavirus outbreak amid the uncertain external environment may lead to higher fund flow volatility, Hong Kong is able to withstand outflows without compromising its financial stability given the ample foreign reserves and robust banking system.

4.1 Exchange rate and capital flows

The Hong Kong dollar exchange rate started to strengthen gradually since mid-October, underpinned by equity related Hong Kong dollar demand including initial public offerings (IPOs) (Chart 4.1). In December, the strengthening of Hong Kong dollar gained further momentum, with the exchange rate staying at the strong side of the Convertibility Zone from mid-December to February. The Hong Kong dollar rally was partly due to some buoyant IPO activities, and partly due to the unwinding of short Hong Kong dollar positions amid tightened liquidity towards the end of the year. As liquidity eased after the Lunar New Year holiday, the Hong Kong dollar exchange rate eased slightly and closed at 7.7956 on 28 February.

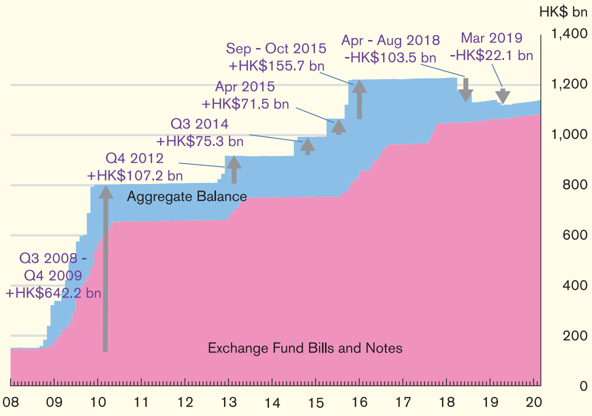
Overall, the Hong Kong dollar continued to trade in a smooth and orderly manner during the review period. As neither the strong-side nor the weak-side Convertibility Undertaking (CU) was triggered during the review period, the Aggregate Balance (AB) remained unchanged at around HK$54 billion (Chart 4.2).

Chart 4.1
Hong Kong dollar exchange rate



Source: HKMA.

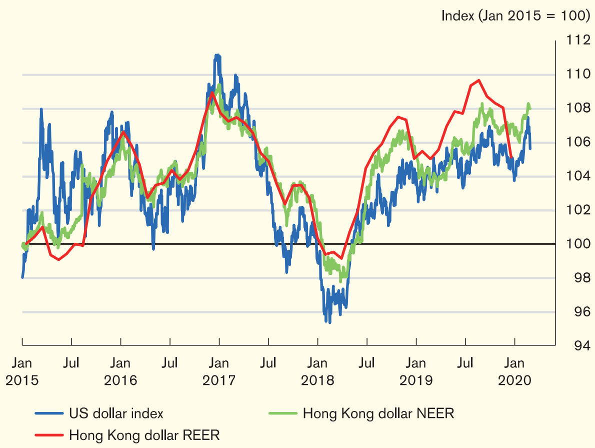
Chart 4.2
AB and Exchange Fund Bills and Notes (EFBNs)



Source: HKMA.

Broadly in line with the movements of the US dollar, the Hong Kong dollar nominal effective exchange rate index (NEER) edged up during the review period (Chart 4.3). The Hong Kong dollar real effective exchange rate index (REER) generally followed the movement of the NEER, as the small inflation differential between Hong Kong and its trading partners only had a limited impact on the REER.

Chart 4.3
NEER and REER



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

When measuring fund flows in Hong Kong, it is important to distinguish between two distinct and yet related concepts of fund flows: (1) Hong Kong dollar flows; and (2) cross-border flows. Hong Kong dollar flows focus on the currency dimension of fund flows which is useful for assessing monetary stability, particularly under the Linked Exchange Rate System (LERS). Cross-border flows focus on the geographical movement of funds through the Hong Kong banking system which is useful for assessing the stability of Hong Kong's financial system as a whole.

The two fund flow concepts require different indicators for monitoring. For the Hong Kong dollar flows, it is useful to focus on the Hong Kong dollar exchange rate and the AB. If the general public or investors engage in a massive rebalancing of their Hong Kong dollar assets into foreign currency counterparts, demand for Hong Kong dollars would naturally decline, leading to weakening of the Hong Kong dollar exchange rate. Under the LERS mechanism, if the Hong Kong dollar exchange rate weakens to the weak-side CU of HK$7.85 to one US dollar, the HKMA stands ready to buy Hong Kong dollars on request from banks, leading to a contraction in the AB. With the AB remaining virtually unchanged since April 2019, and the Hong Kong dollar exchange rate staying at the strong side of the Convertibility Zone in recent months, no significant outflows from the Hong Kong dollar system were observed during the review period.

In monitoring cross-border flows, the size of Hong Kong's total bank deposit is a useful indicator. When there is a significant outflow of funds from the Hong Kong banking system, banks' deposits must decline. Total deposits grew at a modest pace during the review period, suggesting that no significant cross-border outflows have occurred.[43]

Hong Kong dollar foreign exchange and money markets continued to operate in a smooth and orderly manner during the review period, suggesting that the impact from the coronavirus outbreak on Hong Kong's monetary environment remained contained. However, the risk posed by the coronavirus warrants close monitoring.

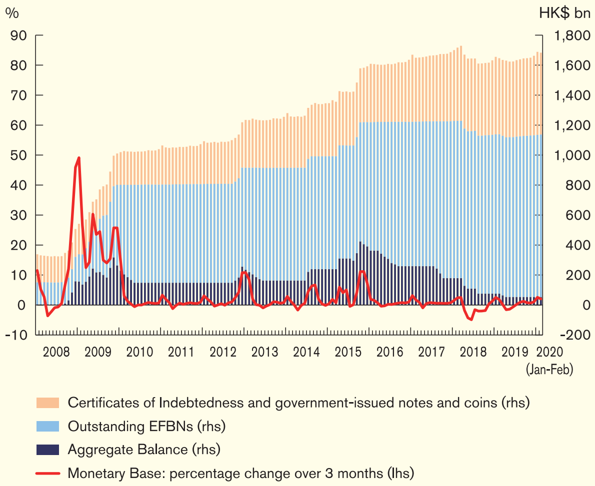
[43] For a detailed analysis of Hong Kong's deposit growth during the review period, see section 4.2.

Given the ample foreign reserves and robust banking system, the HKMA has the capability, resources and commitment to withstand outflows and safeguard Hong Kong's monetary and financial stability.

4.2 Monetary environment and interest rates

Despite the uncertain external environment and the slowdown in the domestic economy, Hong Kong's monetary environment remained relatively accommodative. The Hong Kong dollar Monetary Base remained sizeable, picking up by 4.0% since the end of June to HK$1,689.4 billion at the end of January 2020 (Chart 4.4). As the CU was not triggered during this period, the AB stayed virtually unchanged at around HK$54 billion. Other components of the Monetary Base, including outstanding EFBNs, Certificates of Indebtedness (CIs), and government-issued notes and coins, increased at a steady pace.

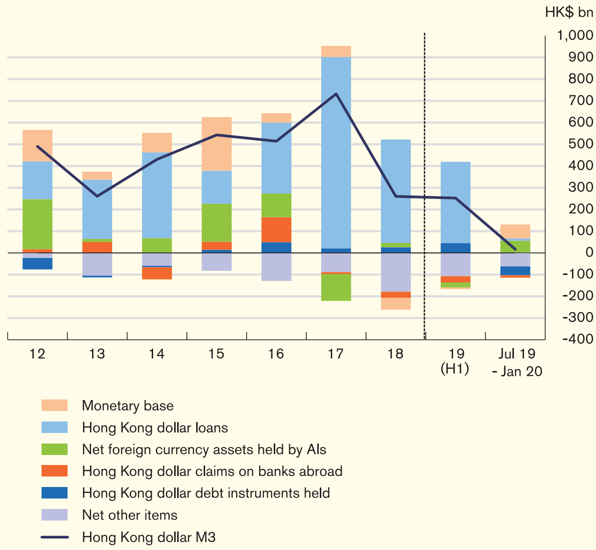
Chart 4.4
Monetary Base components



Source: HKMA.

The broader measures of the Hong Kong dollar monetary aggregate remained largely stable during the review period. After expanding by 3.5% in the first half of 2019, the Hong Kong dollar broad money (HK$M3) edged up by 0.2% in the seven-month period since the end of June 2019. Analysis by the asset-side counterparts shows that growth in HK$M3 since the end of June was mainly due to the pick-up in net foreign currency assets held by banks and the Monetary Base (through the rise in CIs and government-issued notes and coins) (Chart 4.5). As a major component of HK$M3, Hong Kong dollar deposits, stayed virtually unchanged during the seven-month period since the end of June (Chart 4.6). Within Hong Kong dollar deposits, time deposits continued to grow moderately, to some extent due to higher Hong Kong dollar deposit rates.

Chart 4.5
Changes in the HK$M3 and the asset-side counterparts

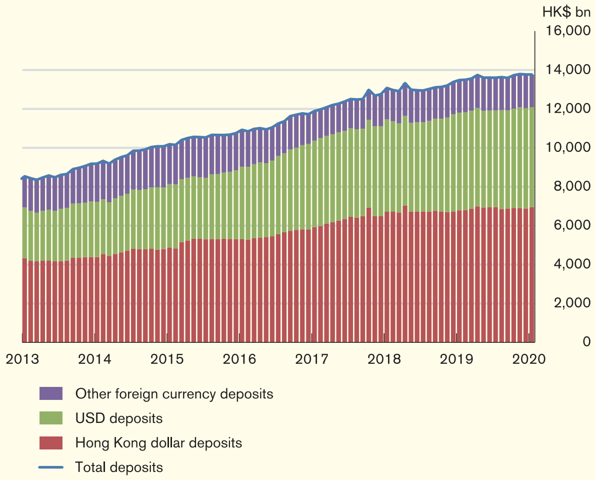


Note: The HK$M3 in the monetary survey has been adjusted to include foreign currency swap deposits.

Source: HKMA staff estimates.

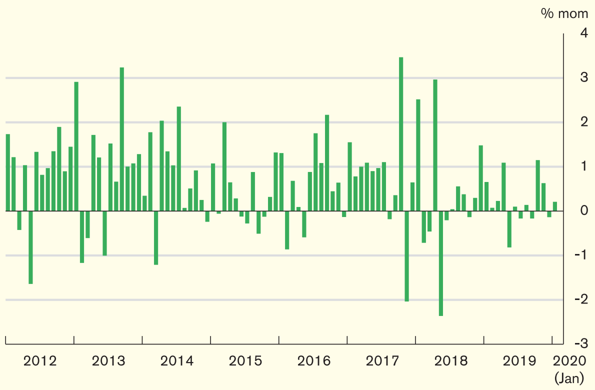
Foreign currency deposits expanded moderately by 2.3% during the seven-month period since the end of June 2019 (Chart 4.6). The increase was mainly driven by US dollar deposits, which expanded by 3.5%. Other foreign currency deposits decreased by 1.0% during the same period, within which renminbi deposits declined slightly in Hong Kong dollar terms. Overall, total deposits with authorized institutions (AIs) grew steadily by 1.2% since the end of June. Supported by the growth of total deposits, total broad money supply in Hong Kong also picked up at a relatively steady pace, with total M2 and M3 increasing by 1.6% and 1.5% respectively since the end of June (Chart 4.7). As monthly monetary statistics are subject to volatilities due to a wide range of transient factors, such as seasonal and IPO-related funding demand as well as business and investment-related activities, caution is required when interpreting the statistics.

Chart 4.6
Deposit with AIs by currencies



Source: HKMA.

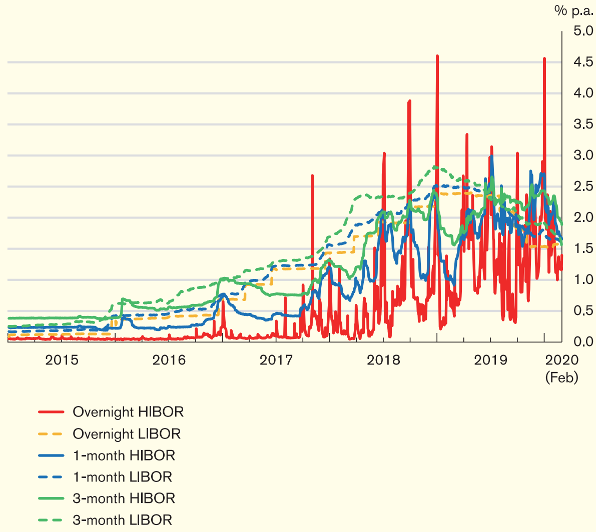
Chart 4.7
Total broad money supply (M2)



Source: HKMA.

While the monetary environment stayed relatively accommodative, the short-term Hong Kong dollar interbank interest rates witnessed fluctuations, reflecting seasonal liquidity demand as well as more capital market activities since the fourth quarter of 2019. In particular, largely driven by vibrant equity IPO activities in Hong Kong's equity market, the overnight Hong Kong interbank offered rate (HIBOR) saw occasionally large fluctuations in late October and mid-November (Chart 4.8).[44] Other short-term HIBORs generally picked up during the review period. While large IPO subscriptions exert sizeable pressure on the overnight HIBOR, Box 4 empirically shows how market attention to future IPO activities could also affect the 3-month HIBOR. This could happen if market participants pre-position themselves in anticipation of future closing dates of large IPO subscriptions by preparing medium term funding in advance.

Chart 4.8
Hong Kong dollar and US dollar interbank interest rates

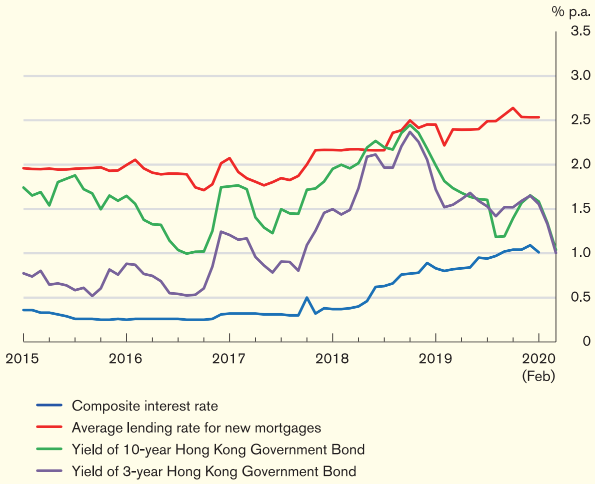


Sources: CEIC and HKMA.

For the Hong Kong dollar yield curve, it shifted downwards along with the movement of the US dollar counterparts. Compared with the end of June 2019, yield of the 10-year Hong Kong Government Bond declined by 60 basis points to 1.04% as at 28 February 2020 (Chart 4.9). Meanwhile, yield of the three-year Hong Kong Government Bond moved down by 50 basis points during the same period to 1.00%.

[44] Based on Hong Kong Exchanges and Clearing Limited (HKEX)'s data, more than HK$167 billion was raised in Hong Kong's equity market in October and November.

Chart 4.9
Yields of Government Bonds, the composite interest rate, and the average lending rate for new mortgages



Sources: HKMA and staff estimates.

On the retail front, the composite interest rate, which measures the average Hong Kong dollar funding costs of retail banks, rose gradually from 0.94% at the end of July 2019 to 1.01% at the end of January 2020. Such pick-up mainly reflected the rise in the weighted deposit rate as banks continued to raise their preferential deposit rates in attracting deposit funds.

Following the decrease in the target range for the US federal funds rate in late October 2019, several retail banks lowered their Best Lending Rates by 12.5 basis points. As such, the Best Lending Rates of retail banks currently ranged from 5.00% to 5.50%. For mortgage lending, the average lending rate for new mortgages moved up to around 2.63% in October as major banks raised the prime-based cap for the HIBOR-based mortgages.[45] Amid the lower Best Lending Rates in the market since November, the average mortgage rates declined slightly and closed at 2.53% in January 2020.

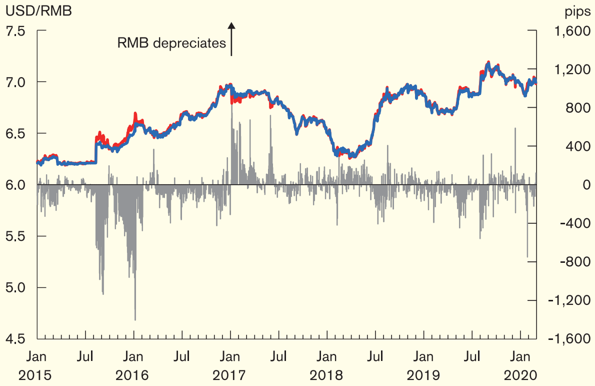
In light of evolving risks of the coronavirus posed to US economic activity and in support of achieving the Fed's policy goal, the Fed lowered the target range for the US federal funds rate on 3 March (US time) and 15 March (US time) by a total of 150 basis points to 0 – 0.25%. While the HIBORs usually track their US dollar counterparts in the longer run, short-term HIBORs are affected by local factors that may influence the demand for Hong Kong dollars including, for example, IPO activities in Hong Kong. The reduction in the AB since April 2018 may have led to a higher sensitivity of HIBORs to changes in supply and demand of Hong Kong dollar funding in the local market. However, it does not mean the current level of the AB at HK$54 billion is insufficient for meeting the settlement needs in the interbank market. In fact, Hong Kong's interbank market has been functioning in an orderly manner. In case of short-term liquidity tightness, banks can make use of the HKMA's liquidity facilities.

Offshore renminbi banking business

Against the backdrop of a possible intensification of the US-China trade conflict, the offshore (CNH) and the onshore (CNY) renminbi exchange rates weakened notably in late August and September 2019, with the CNH easing to a decade low of 7.19 against the US dollar on 2 September (Chart 4.10). Amid optimism over the resumption of the trade talks in October, the depreciation trend of the renminbi reversed, with both CNH and CNY strengthening throughout the fourth quarter and once passing 6.9 in mid-January 2020 following the agreement of the "phase one" US-China trade deal. The CNH and CNY, however, faced weakening pressure again since late January amid the coronavirus outbreak. After trading mostly at a discount between May and August 2019, the CNH traded roughly at a premium against the CNY in the latter part of 2019. Despite seeing widened discount briefly in late January 2020, the spread in general stayed moderate by historical standards.

[45] This was reflected through the narrowed spread in calculating the prime-based cap.

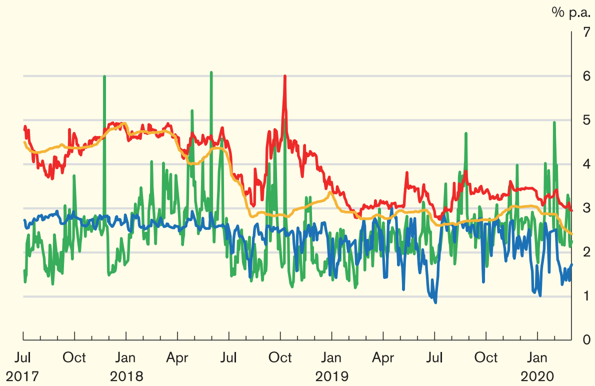
Chart 4.10
CNY and CNH exchange rates



Source: Bloomberg.

Despite fluctuations in the renminbi exchange rate, liquidity conditions in the offshore CNH interbank market remained largely stable. During the review period, the 3-month CNH HIBOR continued to hover around a range of 3 to 4% (Chart 4.11). The overnight CNH HIBOR witnessed brief fluctuations in late August and late November arising from MSCI A-share rebalancing, and in late January 2020 around the Lunar New Year holiday.

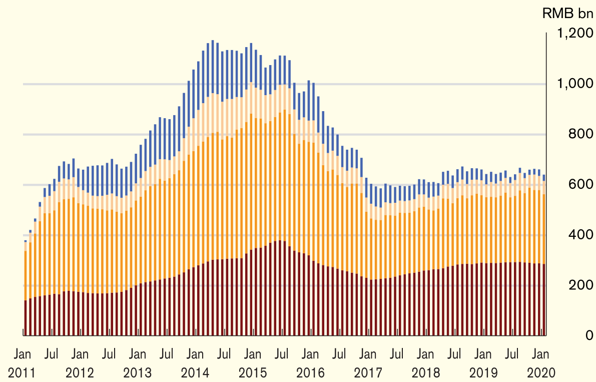
Chart 4.11
The overnight and the three-month CNH HIBOR fixings



Source: CEIC.

Hong Kong's CNH liquidity pool regained some strength after posting a modest decline in the previous review period. The total outstanding amount of renminbi customer deposits and certificates of deposit (CDs) reverted to a modest 1.5% increase in the seven-month period since the end of June, amounting to RMB637.4 billion at the end of January 2020 (Chart 4.12 and Table 4.A). Among the total, renminbi customer deposits grew by 1.4% during this period, mainly led by growth in corporate customer deposits. Meanwhile, with the increased issuance of renminbi CDs in the fourth quarter of 2019, outstanding CDs registered a moderate 5.6% increase after a sharp decline over the previous review period.

Chart 4.12
Renminbi deposits and CDs in Hong Kong



Source: HKMA.

Table 4.A
Offshore renminbi banking statistics

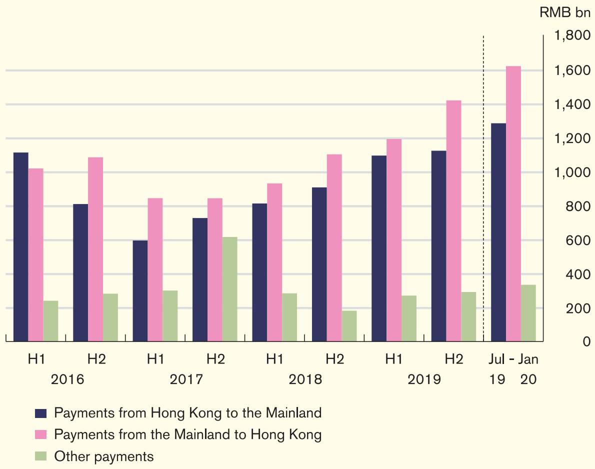
	Dec 2018	Jan 2020
Renminbi deposits & certificates of deposit (CDs) (RMB bn)	657.7	637.4
Of which:		
Renminbi deposits (RMB bn)	615.0	612.5
Share of renminbi deposits in total deposits (%)	5.2	5.0
Renminbi certificates of deposit CDs (RMB bn)	42.7	24.9
Renminbi outstanding loans (RMB bn)	105.6	161.2
Number of participating banks in Hong Kong's renminbi clearing platform	200	203
Amount due to overseas banks (RMB bn)	80.4	84.5
Amount due from overseas banks (RMB bn)	132.8	161.1
	2018	**2019**
Renminbi trade settlement in Hong Kong (RMB bn)	4,206.2	5,376.3
Of which:		
Inward remittances to Hong Kong (RMB bn)	2,027.0	2,604.1
Outward remittances to Mainland China (RMB bn)	1,715.3	2,211.7
Turnover in Hong Kong's RMB RTGS system (Daily average during the period; RMB bn)	1,010.1	1,133.9

Source: HKMA.

Along with the steady growth in Hong Kong's CNH liquidity pool, renminbi bank lending in Hong Kong saw a notable rebound. During the seven-month period since the end of June 2019, the outstanding amount of renminbi bank loans recorded a strong 45.5% increase to RMB161.2 billion at the end of January 2020. Hong Kong's renminbi trade settlement also gathered pace. Transactions handled by banks in Hong Kong rose by 24.6% to RMB3,231.1 billion in the seven-month period since July, mainly driven by inward remittances to Hong Kong (Chart 4.13).

Overall, the renminbi liquidity pool in Hong Kong provided adequate support to a large amount of renminbi payments and financing intermediation activities. For 2019 as a whole, the average daily turnover of the renminbi real time gross settlement (RTGS) system stayed high, picking up from RMB1,010.1 billion in 2018 to RMB1,133.9 billion in 2019.

Chart 4.13
Flows of renminbi trade settlement payments



Source: HKMA.

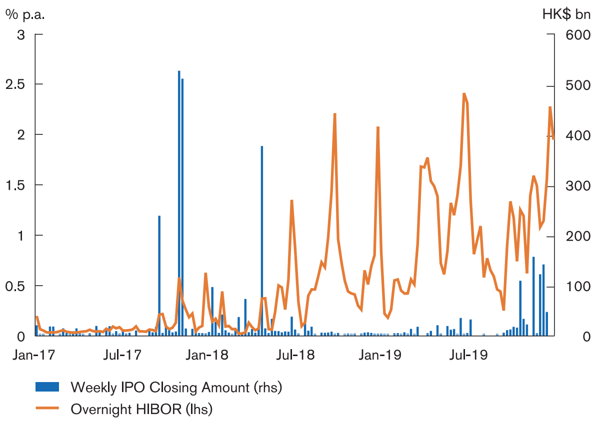
The outlook for the offshore renminbi market in Hong Kong in the period ahead will continue to be influenced by Mainland's macro-financial conditions, the external macroeconomic environment, as well as the progress of the US-China trade negotiations. Nevertheless, Hong Kong's offshore renminbi business is expected to benefit from the ongoing liberalisation of Mainland's capital account, more renminbi assets allocation by international investors, and the deepened regional economic and financial co-operation under the Belt and Road and Guangdong-Hong Kong-Macao Greater Bay Area initiatives.

Box 4
The impact of future initial public offerings on HIBORs

Introduction

As a leading financial centre with a highly developed infrastructure and a global network, Hong Kong is a hub for major offshore fund-raising, especially for IPOs.[46] It is well-known that sizeable IPO subscriptions exert significant pressure on short-term HIBORs, especially near the closing date of subscription. Chart B4.1 shows that some spikes in overnight HIBOR typically coincide with the closing of mega IPOs.[47] What is less known, however, is the extent to which future IPOs – such as those that are at an early application stage – affect longer-tenor interest rates. This box investigates this question against the backdrop of several blockbuster IPOs in recent years that garnered plenty of market attention well before their subscription periods.

Chart B4.1
IPO closing amount and overnight HIBOR



Note: Based on weekly data.
Source: HKMA staff estimates.

46 For instance, Ernst and Young's Global IPO trend report shows that for the whole of 2019, Hong Kong ranked first among major stock exchanges in both the number of IPOs and proceeds.

47 Since the triggering of the weak-side CU in April 2018, the reduction in the Aggregate Balance from over HK$200 billion a couple of years ago to the current level of HK$54 billion has made the overnight HIBOR more sensitive to changes in the supply and demand of Hong Kong dollar funding, as evidenced by the increased volatility in Chart B4.1.

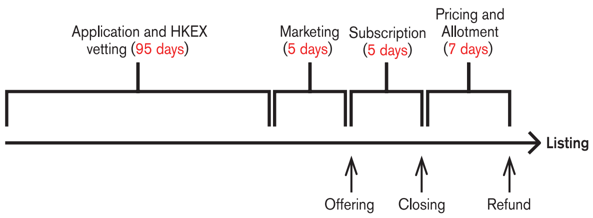
Measuring market attention on future IPOs

Future IPOs could affect longer-term HIBORs because market participants may pre-position themselves in anticipation of future large IPO closings by borrowing over the medium term. For example, if banks anticipate a blockbuster IPO in two-and-a-half months' time, they may prudently secure funds with repayment in three months' time, instead of borrowing just before the closing date. Taking into consideration banks' anticipated funding needs and their expectation of future interest rates, it is therefore not uncommon to observe that longer-term HIBORs could rise well before the IPO subscription period.

To measure the market attention on future IPOs, a proxy of "Future IPO News" is constructed using textual analysis by counting some specific keywords appearing in local Chinese news before IPO subscription periods. If a particular IPO receives extensive media coverage and intense attention, it is conceivable that this is a forward looking sign representing a high demand for investing in the company, prompting market participants to prepare funds earlier and driving up longer-term HIBORs.

In determining the most relevant keywords for gauging market attention, the keyword "listing application" is chosen to mirror IPO subscriptions over the medium term. The rationale is largely based on the timeline of an ordinary listing process as shown in Chart B4.2. As a regular practice, after a company submits its listing application to the Hong Kong Stock Exchange, the application proof will be uploaded to the HKEX's website, which will be picked up easily by the local media, with the keyword "listing application" reported in the news.[48 & 49] If the application is successful, the closing date of an IPO subscription is, on average, about 100 calendar days after the publication of the application proof.

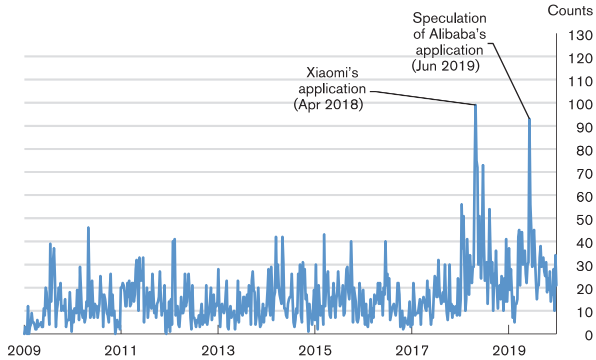
Chart B4.2
Process for listing on Hong Kong Stock Exchange



Note: Days are indicated in average terms.
Sources: HKEX and HKMA staff estimates.

In each of the weeks from January 2009 to December 2019, the number of news counts is tallied and the resulting weekly time series of "Future IPO News" is presented in Chart B4.3. It shows that the news count for "listing applications" gained two spikes, in April 2018 and June 2019. The spike in April 2018 reflected Xiaomi's listing application following a change in the rules by the HKEX to allow companies with a weighted voting right for listing, while the spike in June 2019 reflected speculation about Alibaba's secondary listing in Hong Kong.

Chart B4.3
"Future IPO news", based on the news count for "listing application"



Source: HKMA staff estimates.

Empirical model

A regression model on weekly frequency is constructed to assess how this news-count proxy affects changes in the three-month HIBOR.[50] The model also takes into account other factors that also affect the behaviour of HIBORs, with the major ones discussed below.[51]

- *US interest rate:* This is proxied by LIBORs with the same maturity of HIBORs. Under the LERS, Hong Kong's interest rates should broadly follow their US counterparts. As such, it is expected the US interest rate should have a positive effect on HIBORs.[52]

- *The Aggregate Balance (AB):* This is used to proxy for the interbank liquidity. When interbank liquidity is scarce, there will be upward pressure on HIBORs. As such, the AB is expected to have a negative impact on Hong Kong dollar interest rates.

48 Among the news containing the keyword "listing application", a Boolean search is set to exclude those containing the keywords "Security and Futures Commission", "reverse takeover", and "corruption", etc. The reason is that "listing application" reported in some news may merely be related to regulatory and enforcement issues rather than indicating a genuine IPO application.

49 In some cases, the media may learn the listing application from the market or industries, and therefore report listing applications earlier than the publication of the material.

50 Although there were concerns that the three-month HIBOR could be subject to illiquidity problems, which may exaggerate the economic significance of "Future IPO news", we have replaced the three-month HIBOR with the three-month rate implied by forward points and found that the empirical results remained largely valid.

51 The model is an extension of a similar model used in Leung and Ng (2008) "Impact of IPO activities on the HKD interbank market", *HKMA Research Memorandum* 11/2008.

52 The model also includes an error correction term to govern the long run convergence of HIBORs towards LIBORs. The error correction term is simply the difference between HIBORs and LIBORs of the same maturity with a period lag.

- *Quarter-end effect:* It is also well known that the quarter-end effect exerts funding pressure on HIBORs. As market participants are likely to prepare funds well ahead of the end of the quarter, leads of the quarter-end dummy variables are included in the model.

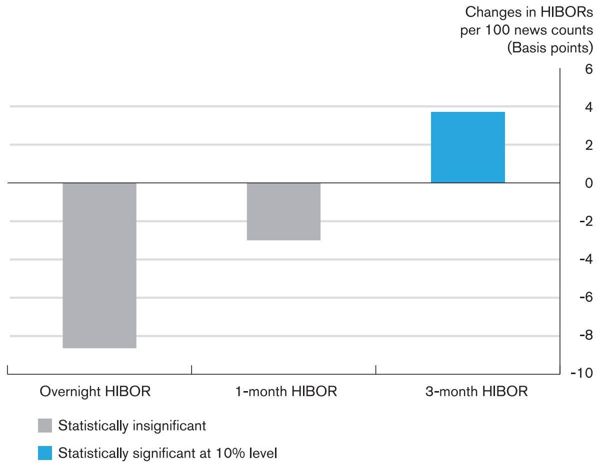
- *"Future IPO news":* This is the news-count proxy for the market attention on future IPOs as discussed above. If market participants pre-position themselves ahead of mega IPOs by borrowing well in advance of the actual listing, this is expected to have a positive effect on HIBORs on the longer end, but not on the shorter end (which is influenced by other shorter-term liquidity demand).

Empirical results and illustrations

To examine the effect of market attention of future IPO news on HIBORs, Chart B4.4 shows the estimated changes in HIBORs of different maturities in response to 100 news counts for "listing application". It shows that the three-month HIBOR is the most responsive to future IPO news. Specifically, if the IPO is covered by the media 100 times, the model predicts that the three-month HIBOR will be increased by 3.7 basis points. On the other hand, "Future IPO News" does not appear to have an effect on other shorter-term HIBORs as the impact on those are statistically insignificant. These results are consistent with the timeline of a typical IPO process as outlined in Chart B4.2.

Given the significant effect of "Future IPO news" on the three-month HIBOR, it is evidence that market participants have pre-positioned themselves in anticipation of future large IPOs closing by borrowing over the medium term. To illustrate how the model can be used to track interest rate movements before and after the IPO activities, two recent blockbuster IPOs (Xiaomi and Alibaba) are used to carry out the attribution analysis on the changes in the three-month HIBOR.

Chart B4.4
Estimated impact of "Future IPO news" on HIBORs

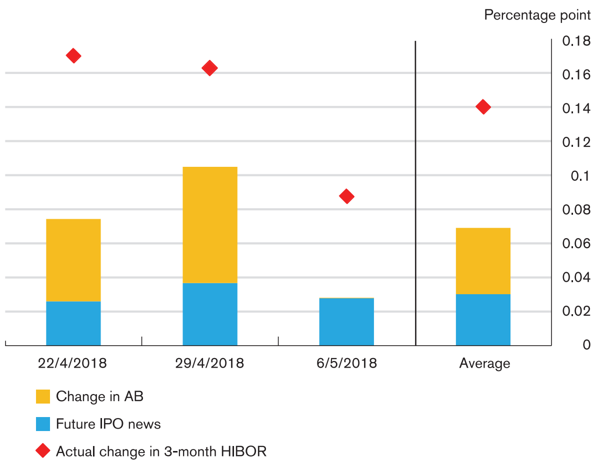


Source: HKMA staff estimates.

The case of Xiaomi: In April 2018, Xiaomi submitted its listing application to the HKEX following HKEX's change of rules to allow companies with weighted voting right for listing. As the first such company to list in Hong Kong after the rule change, Xiaomi received strong market and media attention. This can be seen by the spike in "Future IPO News" shown in Chart B4.3. Compared with the long-run average of around 10 news counts per week, "Future IPO News" apparently surged in April 2018, with most of the news related to Xiaomi's listing.

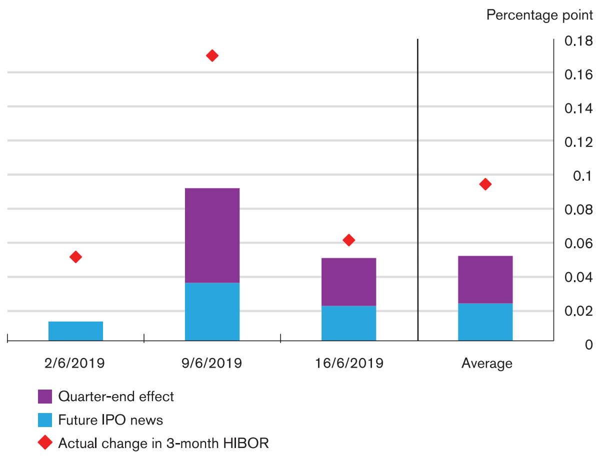
Indeed, the attribution analysis shown in Chart B4.5 suggests that "Future IPO News" (the blue bar) was one of the major drivers for the rise in the three-month HIBOR during that period. It should be noted that other market factors also played a role on the rise. In particular, a reduction in the AB arising from the triggering of the weak-side CU in April 2018 (the orange bar) also exerted upward pressure on HIBORs.

Chart B4.5
Contribution to the change in the three-month HIBOR around the period of Xiaomi's listing application in April 2018



Note: Only significant drivers are shown in the chart.
Source: HKMA staff estimates.

Chart B4.6
Contribution to change in three-month HIBOR with market anticipating Alibaba's listing in June 2019



Note: Only significant drivers are shown in the chart.
Source: HKMA staff estimates.

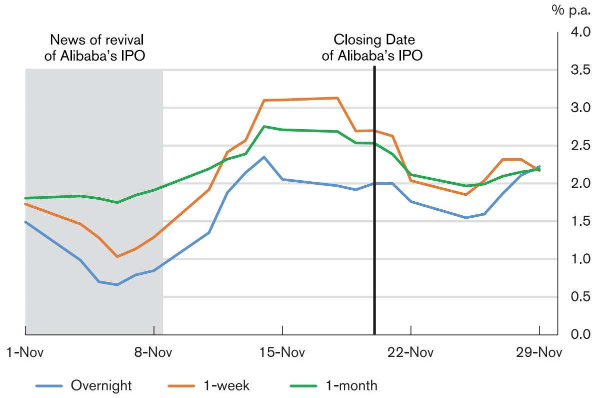
The case of Alibaba: In June 2019, Alibaba reportedly submitted its application for secondary listing in Hong Kong, and was expected to be listed in the second half of 2019. Reflecting its reputation and size as a leading conglomerate in the Mainland technology sector, the market and the media focused on its return to China and anticipated its listing in Hong Kong. Correspondingly, "Future IPO News" as shown in Chart B4.3 also started its upward trend well before the listing rumour in June.

The significant effect of "Future IPO News" on the three-month HIBOR can again be observed in attribution analysis in Chart B4.6. It shows that the news covering Alibaba's potential listing in Hong Kong was one of the major drivers for the rise in the three-month HIBOR (blue bar). As the rumour of Alibaba's listing emerged near the end of June, Chart B4.6 also shows that the half-year-end funding demand was another major contributor (purple bar), as banks needed to prepare funds straddling the half-year end.

Although this box focuses on how market attention on future IPO news affects the medium term HIBOR, it is important to reiterate that sizeable IPOs do significantly affect short-term HIBORs. As Alibaba swiftly relaunched its IPO in November, market participants may not have been so well-prepared in advance as the news of its IPO revival only surfaced during the first week of November.[53] With the IPO closing date on November 20 approaching, demand for short-term funding increased sharply, which led to notable rises in shorter-term HIBORs (Chart B4.7).

[53] In Chart B4.3, "Future IPO news" did not pick up notably in November. This is probably because market participants had anticipated Alibaba's listing application, as well as a lack of interest in other listing applications during that period. A closer look into the news archive shows that most of the keywords at that time were "listing hearing" and "Alibaba's roadshow" as opposed to "listing application", the main keyword that was used to construct "Future IPO News".

Chart B4.7
Overnight, one-week and one-month HIBORs in November 2019



Sources: HKMA and staff estimates.

Concluding remarks

This box constructs a news-count proxy to gauge market attention on future IPOs. Using two recent IPOs as case studies, the empirical model further shows that, in addition to other factors that affect interbank markets, "Future IPO News" also explains a portion of the changes in the three-month HIBOR. This suggests that market participants are proactive in their preparation ahead of future large IPOs. As a result, this box provides some insights into factors affecting medium-term interest rates and how the liquidity management of market participants is evolving.

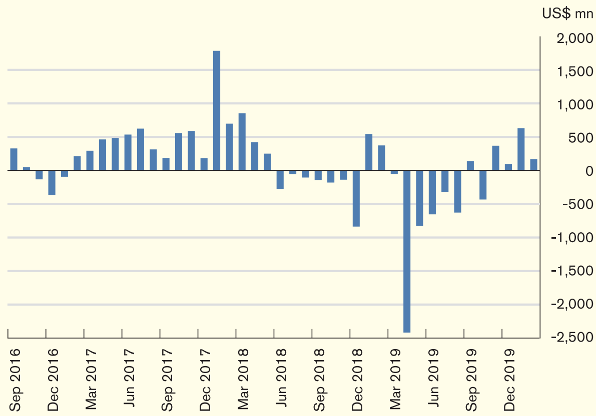
Asset markets

The Hong Kong equity market was sent to a tailspin by the outbreak of the coronavirus after staging a rebound in the last quarter of 2019 against the backdrop of an improved global outlook and reduced US-China trade tensions. The Hong Kong dollar debt market maintained steady growth during a reduction in net outflows, while the offshore renminbi debt market resumed growth in 2019 after three years of contraction. Amid weakened economic activities, the prolonged social incidents and the outbreak, the residential property market has generally softened since mid-2019, albeit showing some fluctuations.

4.3 Equity market

Riding on the back of a global equity rally, the local equity market rebounded significantly after a sharp correction in the summer of 2019, due mainly to two key developments. First, signs suggested that the global economy had avoided a hard landing. Growth stabilised in the final quarter of last year, benefiting from lagged effects of major central bank accommodation (Section 2.1). Although the Mainland economy slowed further, the pace was more manageable than first thought. Second, the rally reflected the much celebrated outcome of the trade negotiations between the US and Mainland China. The two countries successfully secured what could be agreed upon while pushing all contentious issues to the back burner, avoiding a full-blown trade war and hence eliminating the market's worst fear. During the review period, there was much "noise" stemming from the geopolitical front causing sentiment to waver. However, none of it was significant enough to offset the positive developments until the outbreak of the coronavirus occurred towards the end of the review period, wreaking havoc on the global economy. As the virus spread and the risk of a pandemic heightened, global equity markets tumbled and suffered considerable turbulence. As a result, local equities practically had all of its earlier gains erased.

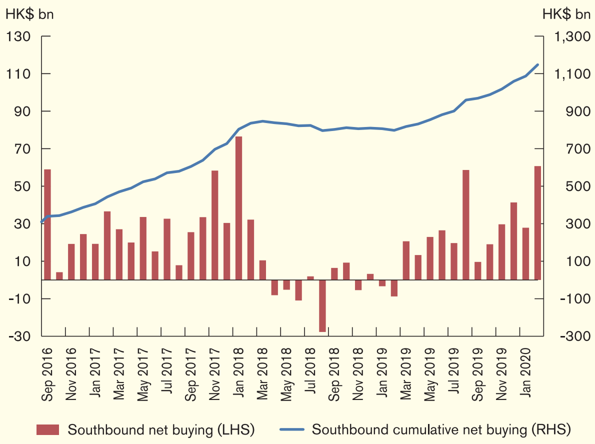
Chart 4.14
Equity market fund flows into Hong Kong



Source: EPFR Global.

Net inflows into Hong Kong crawled back to positive territory towards the end of the review period (Chart 4.14). The last six months also saw continual net southbound buying through the Shanghai-Hong Kong and Shenzhen-Hong Kong Stock Connects. On a cumulative basis, it increased by 43.9% to HK$1,147.6 billion at the end of February (Chart 4.15).

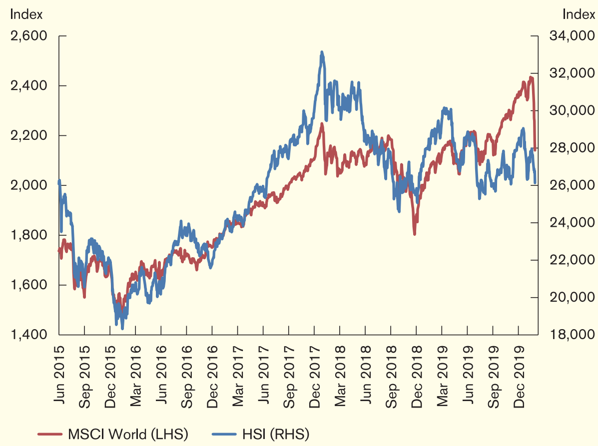
Chart 4.15
Net flows through Stock Connects



Note: The southbound net buying represents a sum of the southbound net buying from the Shanghai-Hong Kong Stock Connect and that of the Shenzhen-Hong Kong Stock Connect.
Sources: CEIC, HKEX and HKMA staff estimates.

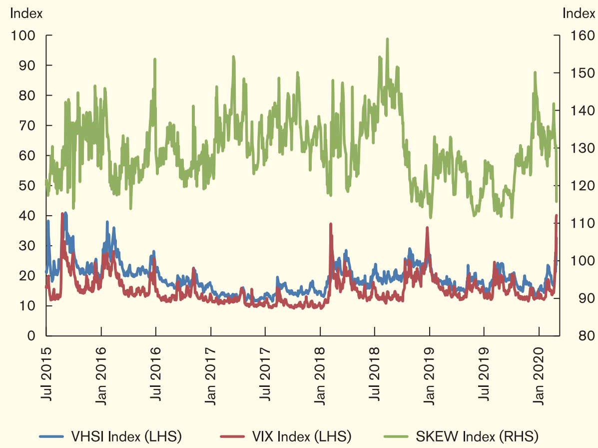
Overall, the local market rose marginally alongside most other major markets. The Hang Seng Index (HSI) and Hang Seng China Enterprises Index, also known as the H-share index, edged up by 1.58% and 2.17% respectively from September 2019 to February 2020, compared with 0.12% registered by the MSCI World Index (Chart 4.16). Option-implied volatilities were steady in most of the review period but elevated significantly amid the outbreak towards the end. The S&P 500-based SKEW index climbed notably at first, reflecting investors' increasing discomfort about the dizzying heights of the US market, thus pushing up the cost of downside protection (Chart 4.17).[54] However, as a large and abrupt market correction occurred at the end of the review period, the index adjusted downwards sharply.

Chart 4.16
Equity prices and MSCI World Index



Source: Bloomberg.

Chart 4.17
Option-implied volatilities of the HSI and S&P500, and the SKEW index



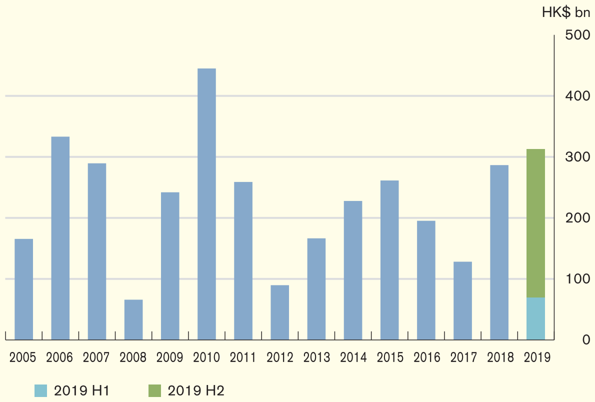
Source: Bloomberg.

In the primary market, IPOs in the Hong Kong market registered a sustained growth in 2019. There were 183 IPOs, totalling HK$312.9 billion, representing an increase of 9.2%. This kept the Hong Kong Stock Exchange (HKEX) at the top of the world's listing markets for the second consecutive year (Chart 4.18). To a significant extent, the growth was attributed to a major Mainland information technology firm seeking a secondary listing on the Exchange, which was widely seen as a major success facilitated by the listing rules reforms to accommodate dual-class share (DCS) structures. For the rest of the year, Hong Kong is expected to continue to play a

[54] The SKEW Index is calculated by the Chicago Board Options Exchange from the prices of the S&P 500 out-of-the-money options. A SKEW value of 100 means that the probability of outlier negative returns at a 30-day horizon is negligible. As SKEW rises above 100, the left tail of the S&P500 returns distribution acquires more weight, suggesting that the probability of outlier negative returns become more significant. For details, see https://www.cboe.com/products/vix-index-volatility/volatility-indicators/skew.

leading role in the global IPO market, with DCS structures remaining an important catalyst to lure more companies of this kind.

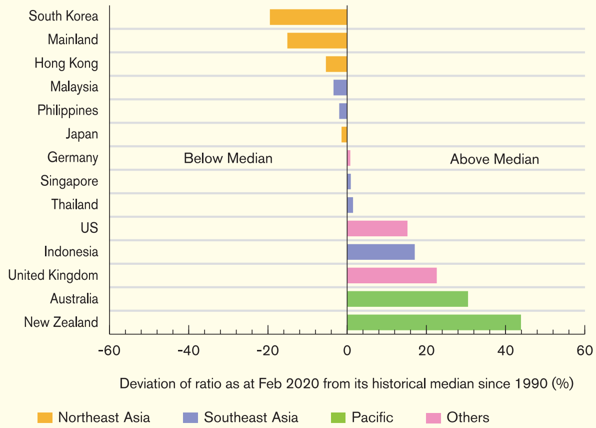
Chart 4.18
The IPO market in Hong Kong



Sources: HKEX.

Looking ahead, uncertainty looms large over the outlook for the local equity market. Given that Mainland enterprises now account for more than two thirds of Hong Kong's market capitalisation, its performance will hinge critically on how well they can cope in a sharply slowing global economy in the face of the coronavirus pandemic. While leading central banks have cut interest rates and stood ready to provide further liquidity support, investors appear to be wary that monetary accommodation might not offer real solutions to many operational difficulties experienced by firms and practical issues faced by consumers. Complicating this picture will be the considerable uncertainties brought by the next round of trade negotiations which are necessarily focused on much tougher and more sensitive issues such as 5G technology, cyber security and state-owned enterprise subsidies. In addition, there are many wild cards internationally, including the US-Iran tensions, the UK-European Union trade relations and the US presidential election. Therefore, while the local market remains attractive in terms of valuation, trading will likely be turbulent in the period ahead (Chart 4.19).

Chart 4.19
Cyclically-adjusted price-earnings ratios of Asia Pacific and other major markets

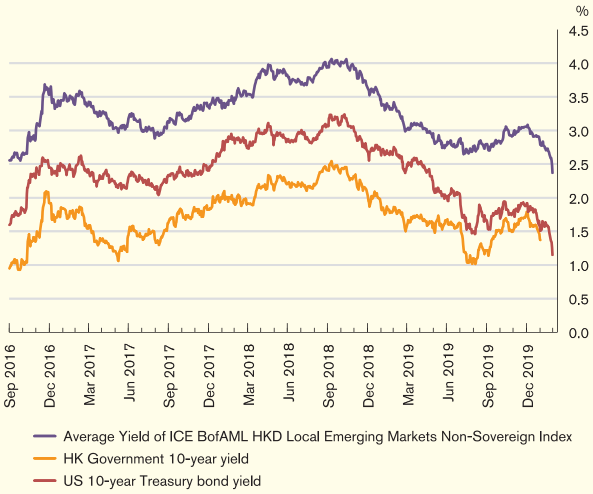


Sources: Bloomberg, CEIC and HKMA staff estimates.

4.4 Debt market

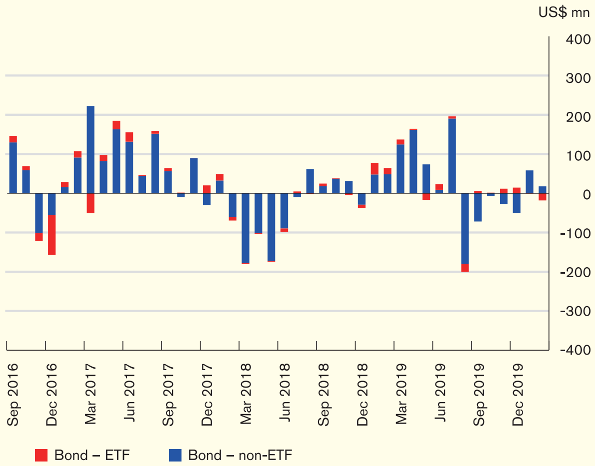
The Hong Kong dollar debt market continued to expand in 2019 on the back of steady growth in issuance, with the yields of both sovereign and non-sovereign bonds rebounding markedly since around last September, before declining rapidly towards the end of the review period in view of increasing risks posed by the coronavirus outbreak to growth. The earlier rebound was in tandem with the increase in US Treasury yields amid growing expectations there was no pressing need for the US Federal Reserve to further ease monetary policy (Chart 4.20). With the negative yield spread of sovereign bonds closing and the positive yield spread of non-sovereign bonds remaining significant, international investors found it increasingly more attractive to return from the sidelines. As a result, there was an improved appetite for Hong Kong dollar debt, which was reflected in the reduced net outflows towards the end of the year (Chart 4.21).

Chart 4.20
Hong Kong dollar sovereign and non-sovereign bond yields and US ten-year Treasury yield



Sources: ICE Data Indices and HKMA.

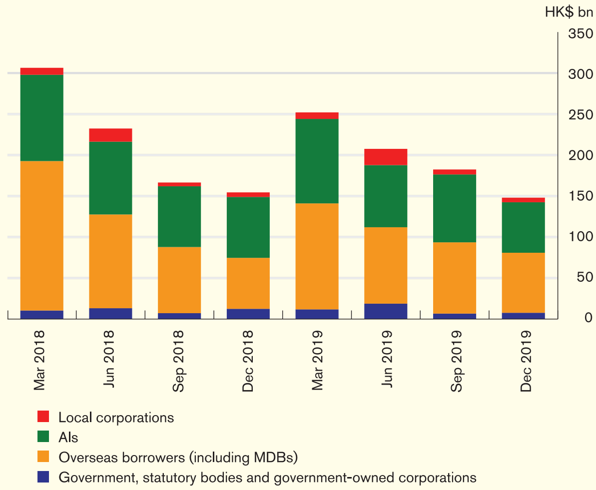
Chart 4.21
Exchange traded fund (ETF) and non-ETF bond fund flows into Hong Kong



Source: EPFR Global.

The new issuance of Hong Kong dollar debt increased by 2.2% to HK$4,184.0 billion in 2019 from the preceding year, mainly driven by a 5.0% increase in the issuance of Exchange Fund papers, which more than offset the decline in debts issued by the domestic private sector and overseas borrowers (Chart 4.22).

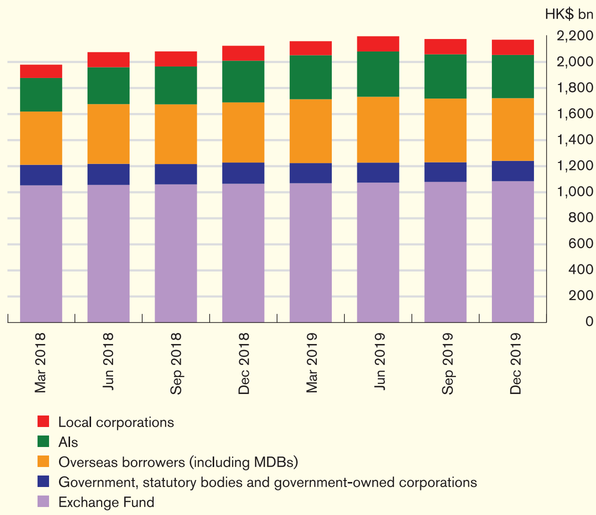
Chart 4.22
New issuance of non-EFBNs Hong Kong dollar debt



Source: HKMA.

As a result, the outstanding amount of Hong Kong dollar debt rose, also by 2.2%, to HK$2,165.9 billion at the end of December (Chart 4.23). The amount was equivalent to 29.1% of HK$M3 or 22.9% of Hong Kong dollar-denominated assets of the banking sector. Within the total, overseas borrowers including multilateral development banks saw their debt outstanding grow by 4.1% from a year ago to HK$479.7 billion. The outstanding debt of the local private sector also rose by 3.4% to HK$448.1 billion, attributable to an increase in the outstanding debt of both AIs and local corporations.

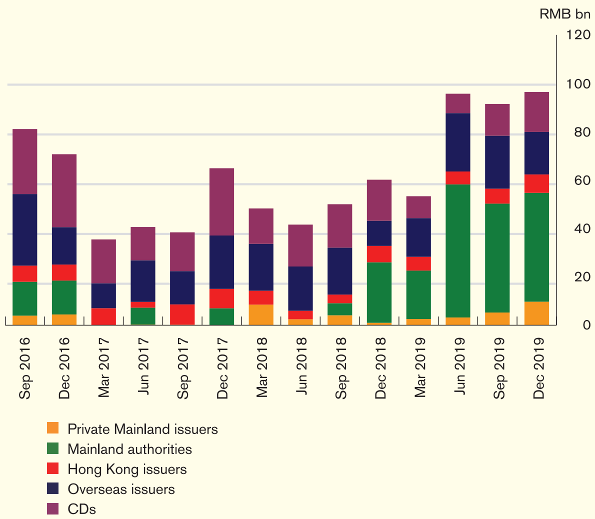
Chart 4.23
Outstanding Hong Kong dollar debt



Source: HKMA.

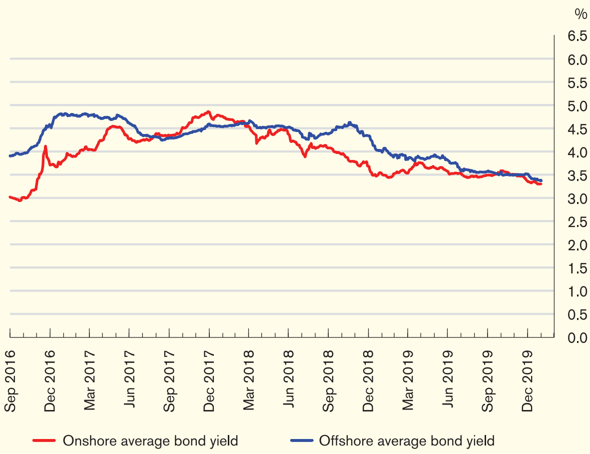
The offshore renminbi debt market in Hong Kong continued to expand. New issuance increased by 68.6% to RMB337 billion in 2019, mainly driven by Mainland authorities (Chart 4.24). The public sector aside, debts issued by private issuers including corporates from Mainland China, Hong Kong and overseas, registered a 21.3% increase to RMB125 billion, more than offsetting the 30.2% decrease in gross certificates of deposit issuances in the market. The increase in new issuance was partly due to a reduction in the funding cost difference between the onshore and offshore markets, as bond yields converged between onshore and offshore during the review period (Chart 4.25).

Chart 4.24
New issuance of offshore renminbi debt in Hong Kong



Sources: Newswires and HKMA staff estimates.

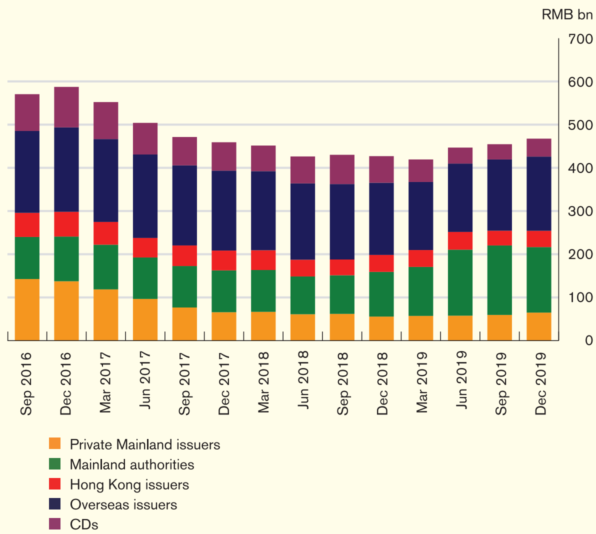
Chart 4.25
Average yields of onshore vs. offshore renminbi bond indices



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

Due to the sharp growth in new issuance, the total outstanding amount of offshore renminbi debt securities recorded a 9.0% increase to RMB468 billion at the end of December 2019, reversing a three-year-long decline (Chart 4.26).

Chart 4.26
Outstanding amount of offshore renminbi debt in Hong Kong



Sources: Newswires and HKMA staff estimates.

The near-term development outlook for the Hong Kong dollar and offshore renminbi debt markets is masked by considerable uncertainties over the coronavirus outbreak and the continuing trade negotiations between the US and Mainland China. A wide range of economic activities came almost to a standstill on the Mainland as the authorities took strong measures to combat the spread of the virus. It is too early to tell if there will be a speedy economic recovery as the outbreak has now evolved into a pandemic. Incentives to invest are significantly suppressed, despite continued monetary and fiscal accommodation. Looking further ahead, whether a long-term investment project previously put on hold will receive the green light from the phase one trade deal also depends on the sector concerned. Industries that are more protected or highly regulated by the government, especially those considered strategic and technology-related, may be subject to no less uncertainty than before. Against this backdrop, these borrowers and lenders will continue to exercise caution in committing themselves to long-term funding in the capital market. Hence, there will unlikely be smooth sailing for the development of the local debt market in the foreseeable future.

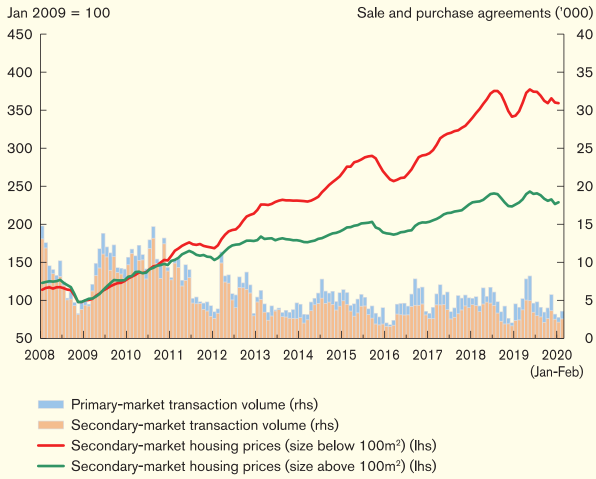
4.5 Property markets

Residential property market

The residential property market has generally softened since mid-2019, albeit showing some fluctuations. Market sentiment was dampened initially by the renewed US-China trade tensions, the local social incidents, weakened domestic economic activities, and later the outbreak of the coronavirus.[55] Compared with the first half of 2019, housing transactions dropped by 27% in the second half, with the average monthly transaction falling to about 4,200 units (Chart 4.27). In early 2020, the holiday effect of the Chinese New Year, together with the coronavirus outbreak, contained housing market activities. However, market data from real estate agencies suggest secondary-market transactions picked up in recent weeks.

Housing prices in the secondary market have also generally softened since June 2019. In particular, prices of large flats (with a saleable area of at least 100m^2) decreased slightly faster than the prices of small and medium-sized flats (with a saleable area of less than 100m^2). Overall, housing prices declined by 3.8% between June and December, but still recorded an increase of 5.4% for the whole of 2019, larger than the rise of 1.9% a year earlier (Chart 4.27). The latest outbreak further weighed on housing prices. The Centa-City Leading Index declined by about 2% in early March 2020 compared with the end of 2019.

Chart 4.27
Residential property prices and transaction volume



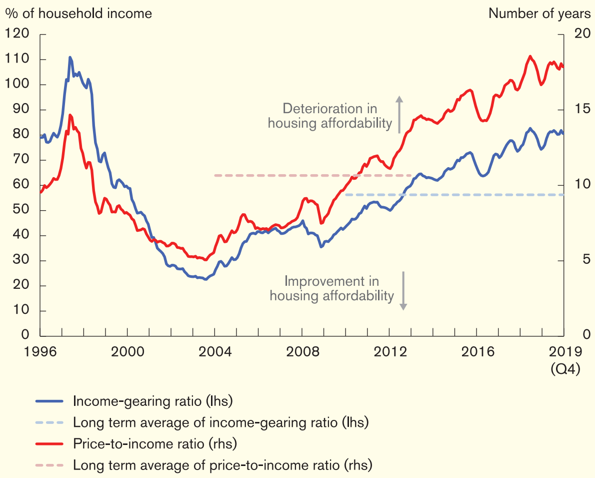
Sources: Rating and Valuation Department (R&VD) and Land Registry.

Despite softer housing prices, housing affordability remained stretched. The housing price-to-income ratio reached 17.9 in the fourth quarter of 2019, compared with the 1997 peak of 14.7. In addition, the income-gearing ratio was 80.9% in the fourth quarter, well above the

[55] That said, market sentiment improved briefly after the amendment to the Mortgage Insurance Programme (MIP) in mid-October. Specifically, the cap on the value of completed residential properties eligible for a mortgage loan was raised under the MIP starting from 16 October 2019. For more details, see the Press Release "Amendments to the Mortgage Insurance Programme" issued by the Hong Kong Mortgage Corporation Limited.

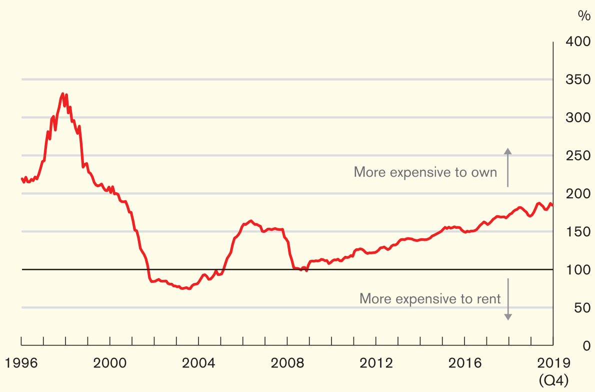
long-term average (Chart 4.28).[56] As housing rentals also fell back from the recent peak in August, the buy-rent gap remained high in the second half of 2019 (Chart 4.29).[57] On the flip side, residential rental yields stayed low at 2.1–2.5%.

Chart 4.28
Indicators of housing affordability



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

Chart 4.29
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.

56 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, which is subject to a maximum cap by the HKMA prudential measures.

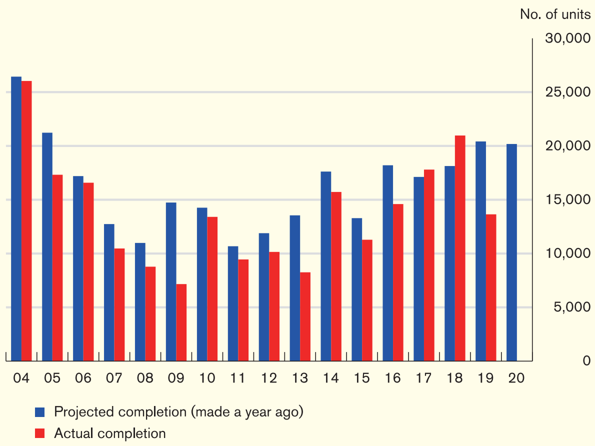
57 The buy-rent gap estimates the cost of owner-occupied housing (under a 20-year mortgage scheme with a 70% LTV ratio) relative to rentals.

While the housing market saw some downward pressures, the macroprudential measures implemented by the HKMA since 2009 have helped enhance the resilience of the banking sector to property market shocks. The average LTV ratio for new mortgages was 52.6% in January 2020, compared with 64% before the measures were first introduced. The debt-servicing ratio also stayed low at around 36%. In view of the coronavirus outbreak in early 2020, several banks have introduced some relief measures such as principal moratoriums for residential mortgages to relieve the financial difficulties of some borrowers.

The outlook for the residential property market is subject to a host of uncertainties and risks as discussed in previous chapters. For example, the coronavirus outbreak, coupled with the current economic recession and the rising unemployment rate, will dampen housing demand and new project launches. Some external risk and uncertainty factors, such as the pace of global economic growth and the international financial market volatility, may also affect housing market sentiment. On the other hand, the very low interest rates may provide some support to asset markets, while market activity could rebound when the outbreak fades out, as suggested by the experience of the post–SARS period in 2003. Over the longer term, the outlook for the housing market will depend on the housing supply-demand gap. Although actual completions in 2019 saw a shortfall compared with the projections (Chart 4.30), the Government projects that private housing completions will remain high in forthcoming years.[58]

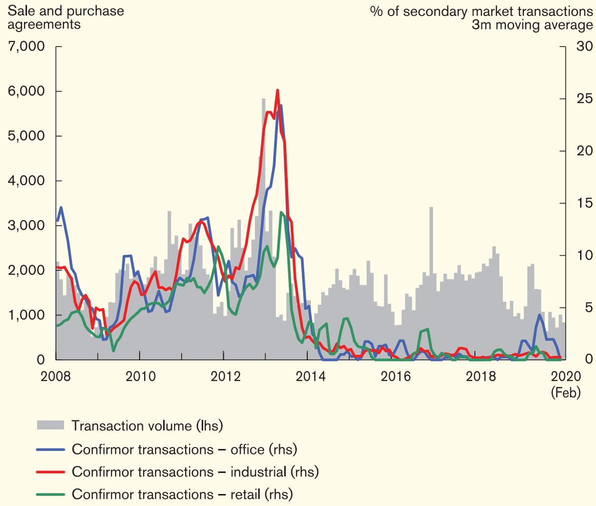
58 The R&VD forecasts gross completions at around 20,000 units per year in 2020 and 2021, compared with the average of 13,500 units per annum in the past ten years (2010–2019).

Chart 4.30
Projected and actual private flat completion



Sources: Transport and Housing Bureau and R&VD.

Chart 4.31
Transactions in non-residential properties



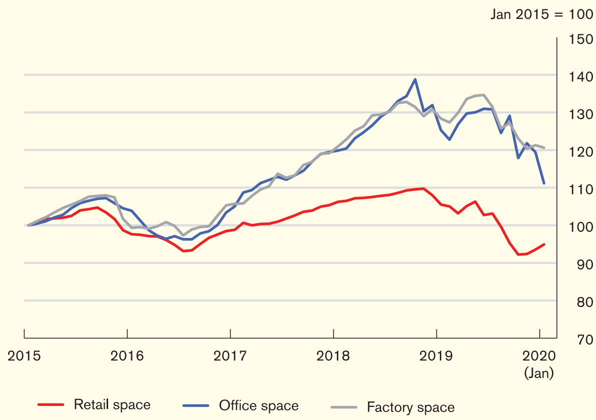
Sources: Land Registry and Centaline Property Agency Limited.

Non-residential property market

In the second half of 2019, the non-residential property market turned more sluggish amid a worsening business environment. Average monthly transactions declined further from 1,098 units in the third quarter to 914 units in the last quarter, hitting a three-year low since the first quarter of 2016 (Chart 4.31). Speculative activities remained quiet as reflected by the low level of confirmor transactions. Prices of non-residential properties were broadly weighed down by adverse economic conditions (Chart 4.32). Rentals also recorded varying degrees of decline (Chart 4.33), particularly those for retail shops which fell by a total of 6.1% since July. This partly reflected some shopping mall owners offering rent cuts to tenants in response to business disruptions in recent months. Rental yields across segments continued to stay at a low range of 2.7 – 3.0% in January 2020.

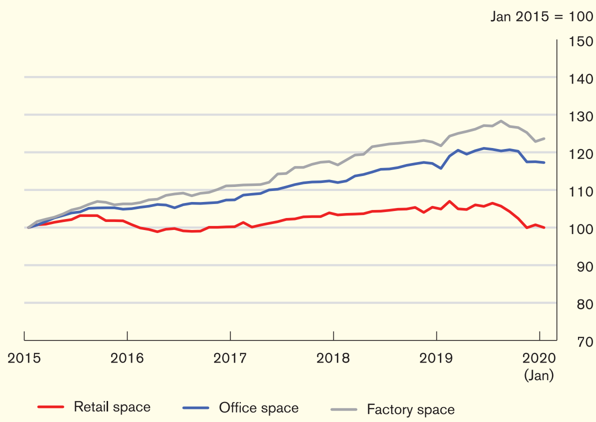
The outlook for the commercial and industrial property markets is challenging in the near term. Should domestic economic activities stay weak, the vacancy rate of commercial units could increase further, exerting downward pressures on prices and rentals. In addition, the retail segment will face stronger headwinds from the coronavirus outbreak and the lacklustre performance of inbound tourism.

Chart 4.32
Non-residential property price indices



Source: R&VD.

Chart 4.33
Non-residential property rental indices



Source: R&VD.