

4. Monetary and financial conditions

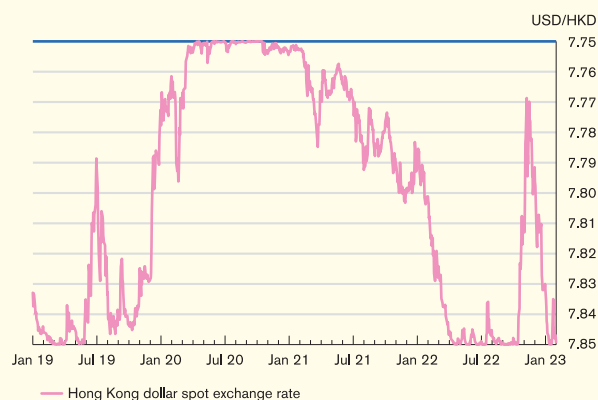
The Hong Kong dollar stayed close to the weak-side CU from September to early November 2022, before regaining some strength towards the end of 2022 amid stronger local equity market activities and year-end funding demand. HIBORs increased gradually from September to December 2022 along with higher US dollar interest rates. Moving into 2023, as the effect from seasonal demand for Hong Kong dollar funding faded, the Hong Kong dollar exchange rate softened to close to the weak-side CU again and HIBORs receded. With total deposits increasing modestly in the seven months since end-June 2022, there was no notable sign of outflows from the Hong Kong banking system. Overall, the Hong Kong dollar exchange and money markets continued to trade in a smooth and orderly manner. Looking ahead, uncertainties related to US monetary policy, the growth outlook for the major AEs, and lingering geopolitical tensions may heighten fund-flow volatility. Nonetheless, with the ample foreign reserves position and a robust financial system, Hong Kong is able to withstand the volatilities in fund flows without compromising its financial stability.

4.1 Exchange rate and capital flows

The Hong Kong dollar stayed close to the weak-side CU from September to early November 2022, driven by the local stock market correction, market expectation of further US interest rate hikes, and continued carry trade activities, with the weak-side CU being triggered 10 times during the period. Amid stronger local equity market activities and year-end funding demand, the Hong Kong dollar regained some strength from mid-November to end-2022, but softened at the beginning of 2023 as the seasonal demand for Hong Kong dollar funding faded. On 13 and 14 February 2023, the weak-side CU was triggered 2 more times. During the review period, the Hong Kong dollar traded within a range between 7.7687 and 7.8500 against the US dollar (Chart 4.1). From the first weak-side CU triggering in May 2022 to February 2023, the weak-side CU was triggered 43 times in total. As a result, the HKMA purchased a total of HK\$261.2 billion at

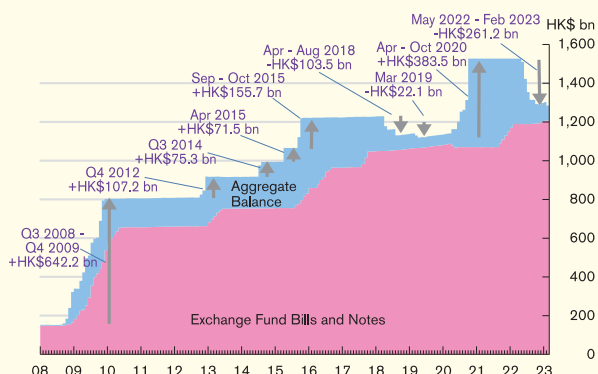
the request of banks in accordance with the design of the LERS. The Aggregate Balance of the banking system declined from HK\$337.5 billion at the end of April 2022 to HK\$77.1 billion at the end of February 2023 (Chart 4.2).

Chart 4.1
Hong Kong dollar exchange rate



Source: HKMA.

Chart 4.2
Aggregate Balance and Exchange Fund Bills and Notes (EFBNs)



Source: HKMA.

Broadly tracking the movements of the US dollar, the Hong Kong dollar nominal effective exchange rate index (NEER) weakened during the review period (Chart 4.3). The Hong Kong dollar real effective exchange rate index (REER) generally followed the movement of the NEER.

Chart 4.3
NEER and REER



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

Looking ahead, uncertainties related to US monetary policy, the growth outlook for the major AEs, and lingering geopolitical tensions may heighten fund-flow volatility. However, with the ample foreign reserves position and a robust financial system, Hong Kong is able to

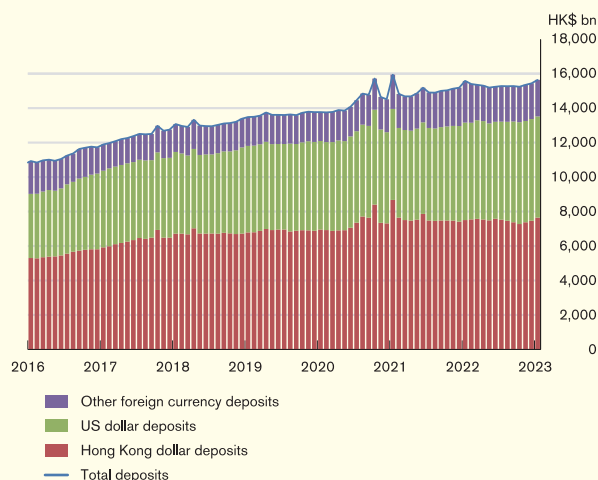
withstand the volatilities in fund flows without compromising its financial stability.

4.2 Monetary environment and interest rates

Despite the triggering of the weak-side CU and the ongoing US monetary policy tightening during the review period, the Hong Kong dollar Monetary Base remained sizeable and broadly stable, at HK\$1,896.4 billion as at the end of February 2023.

In the seven-month period since end-June 2022, total deposits with AIs increased modestly by 2.6%, with Hong Kong dollar deposits increasing by 0.9% and foreign currency deposits increasing by 4.4% (Chart 4.4). It should be noted that monetary statistics are subject to volatility due to a wide range of transient factors, such as seasonal and initial public offering (IPO) related funding demand as well as business and investment-related activities. It is therefore more appropriate to observe the longer-term trends. For 2022 as a whole, total deposits and Hong Kong dollar deposits increased by 1.7% and 0.7% respectively. There was no notable sign of outflows from the Hong Kong banking system.

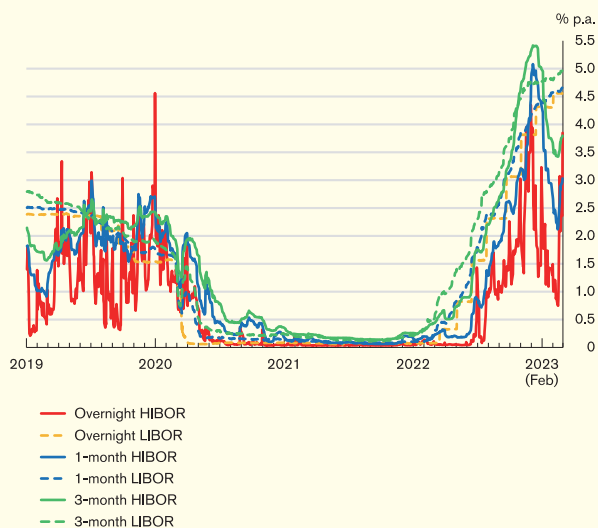
Chart 4.4
Deposits with AIs by currency



Source: HKMA.

Overall, Hong Kong’s interbank market continued to trade in a smooth and orderly manner. Under the LERS, the Hong Kong dollar interbank rates generally track their US dollar counterparts. Alongside US rate hikes, HIBORs gradually increased from September to December 2022 (Chart 4.5). Driven by stronger local equity market activities, seasonal year-end funding demand, and an expectation of further US rate hikes, the one-month HIBOR once rose above 5% in early December 2022. Moving into 2023, HIBORs receded as the seasonal demand for Hong Kong dollar funding faded. The one-month HIBOR declined to an average of 2.5% in February.

Chart 4.5
Hong Kong dollar and US dollar interbank interest rates



Sources: CEIC and HKMA.

On the retail front, following US policy rate hikes, many banks raised their Best Lending Rates three times or by 62.5 basis points in total from September to December 2022. Specifically, they raised the Best Lending Rates by 12.5 basis points in late September 2022, 25 basis points in early November 2022, and another 25 basis points in mid-December 2022. At the end of the review period, the Best Lending Rates in the market ranged from 5.625% to 6.125%. Meanwhile, some major banks further increased

the cap on HIBOR-based mortgage rates of newly approved mortgage loans in late November and December 2022. Accordingly, the average lending rate for new mortgages increased further from 2.31% in July 2022 to 3.50% in January 2023.

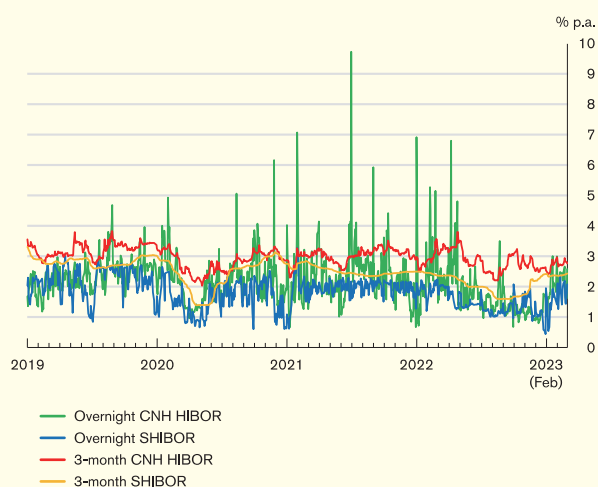
Going forward, movements in Hong Kong dollar interest rates will continue to be influenced by their US counterparts under the design of the LERS, and the Hong Kong dollar interbank rates might remain at elevated levels for some time. Meanwhile, there will continue to be considerable uncertainties on the interest rate path in the US. However, sufficient liquidity in the banking system in Hong Kong should provide a sizeable cushion in the event of financial market volatility.

Offshore renminbi banking business

Liquidity conditions in the CNH interbank market remained stable during the review period,³⁵ and the three-month CNH HIBOR continued to hover around 3%. While the overnight CNH HIBOR witnessed brief fluctuations in late August 2022 arising from occasional funding needs for foreign exchange settlement, it mostly traded below 2% (Chart 4.6).

³⁵ See Chapter 2.2 for the development of offshore and onshore renminbi exchange rates.

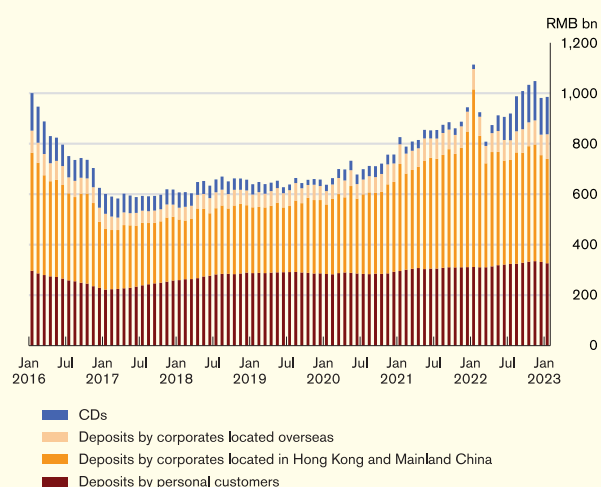
Chart 4.6
The overnight and the three-month CNH HIBOR fixings



Source: CEIC.

Following consolidation in the first half of 2022, Hong Kong's CNH liquidity pool expanded during the review period. The total outstanding amount of renminbi customer deposits and certificates of deposit (CDs) reverted to a 7.1% increase in the six-month period since the end of July 2022 to RMB985.6 billion at the end of January 2023 (Chart 4.7 and Table 4.A). Among the total, renminbi customer deposits grew by 2.9% during this period, mainly led by growth in corporate customer deposits. Meanwhile, with the continued increase in the issuance of renminbi CDs, outstanding CDs expanded by 39.6% during the same period.

Chart 4.7
Renminbi customer deposits and CDs in Hong Kong



Source: HKMA.

Table 4.A
Offshore renminbi banking statistics

	Dec 2021	Jan 2023
Renminbi deposits & CDs (RMB bn)	944.7	985.6
Of which:		
Renminbi deposits (RMB bn)	926.8	837.3
Share of renminbi deposits in total deposits (%)	7.5	6.2
Renminbi CDs (RMB bn)	17.9	148.3
Renminbi outstanding loans (RMB bn)	163.6	220.8
Number of participating banks in Hong Kong's renminbi clearing platform	212	211
Amount due to overseas banks (RMB bn)	102.9	139.4
Amount due from overseas banks (RMB bn)	100.4	126.7
	2021	2022
Renminbi trade settlement in Hong Kong (RMB bn)	7,083.6	9,342.1
Of which:		
Inward remittances to Hong Kong (RMB bn)	3,154.6	3,188.5
Outward remittances to Mainland China (RMB bn)	3,371.3	5,324.1
Turnover in Hong Kong's RMB real time gross settlement (RTGS) system (Daily average during the period; RMB bn)	1,522.6	1,654.0

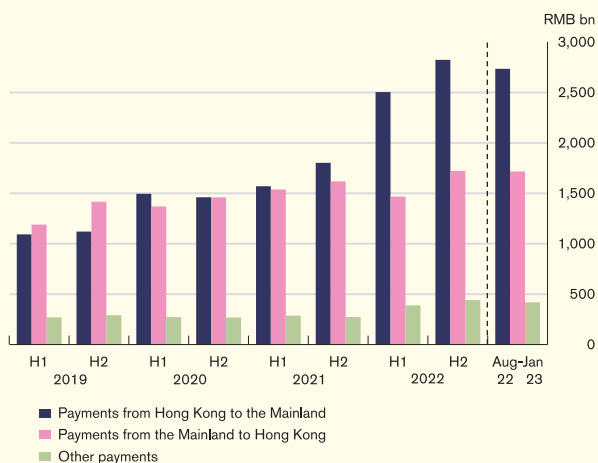
Source: HKMA.

For other renminbi business, the outstanding amount of renminbi loans expanded by 28.0% in the six-month period since July 2022. Hong Kong's renminbi trade settlement also continued to pick up. Transactions handled by banks in Hong Kong amounted to RMB4,867.4 billion for the period between end-July 2022 and end-January 2023 (Chart 4.8), up by 29.3% compared with RMB3,763.0 billion during the same period last year. The deep renminbi liquidity pool in Hong Kong continued to support a large amount

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of renminbi payments and financing transactions. For 2022 as a whole, the average daily turnover of the renminbi RTGS system rose to RMB1,654.0 billion from RMB1,522.6 billion recorded in 2021.

Chart 4.8
Flows of renminbi trade settlement payments



Source: HKMA.

Looking ahead, the continuing development of Hong Kong's offshore renminbi ecosystem will further reinforce its leading role in offshore renminbi business. The enhanced Currency Swap Agreement with the PBoC, as well as the enhancements to the HKMA's renminbi liquidity facility, will ensure the availability of ample renminbi liquidity in Hong Kong as an offshore renminbi market. At the same time, the continuous efforts in strengthening connectivity with the Mainland through various schemes, including the Swap Connect, the two-way Stock, Bond, and Cross-boundary Wealth Management Connects, will provide a more diverse range of renminbi-denominated products in Hong Kong. In relation to financial infrastructure, the planned upgrading of the CMU into a major ICSD in Asia will also add to a robust and secure channel for overseas investors to efficiently trade renminbi assets. With these initiatives, Hong Kong will be in a position to capture further opportunities brought by the continuing liberalisation of Mainland's capital account and the deepening regional economic and financial

co-operation under the Belt and Road and the Guangdong-Hong Kong-Macao Greater Bay Area initiatives.

Asset markets

Amid monetary tightening by major central banks, the Hong Kong equity market underwent a sharp correction in September and October 2022. The local equity market rebounded afterwards, led by the prospects of a slowdown in US interest rate hikes and re-opening of the Mainland and Hong Kong economies, before declining in February 2023. Despite the rising interest rates, the Hong Kong debt market continued to grow in 2022. The residential property market softened further in the second half of 2022 amid an uptick in mortgage rates and weak economic activities, before showing signs of stabilisation in early 2023.

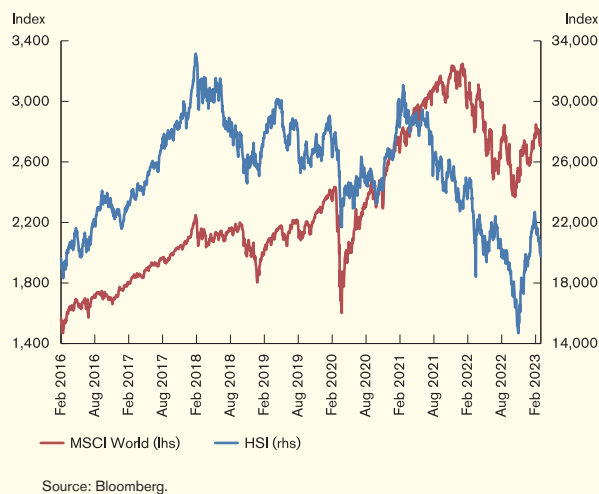
4.3 Equity market

Global equity markets took a roller coaster ride during the review period. Amid monetary tightening by major central banks, global equity prices underwent a sharp correction in September and October 2022 (Chart 4.9). In Hong Kong, the weak market sentiment pushed down the Hang Seng Index even further, dropping to a thirteen and a half-year low of 14,687 points on 31 October. The local equity market rebounded afterwards, led by the prospects of a slowdown in US interest rate hikes and re-opening of the Mainland and Hong Kong economies, before declining in February 2023. Overall, the Hang Sang Index declined slightly by 0.8% from the end of August 2022 to the end of February 2023, while the MSCI World Index registered a 3.3% increase in the same period.

Volatilities in equity markets displayed a similar trend. Measured by the option-implied volatilities of the S&P 500 Index and the Hang Seng index, equity market volatilities first eased considerably from their recent peaks in October 2022, before moving up towards the end of the review period (Chart 4.10). The SKEW Index increased at the same time, suggesting that

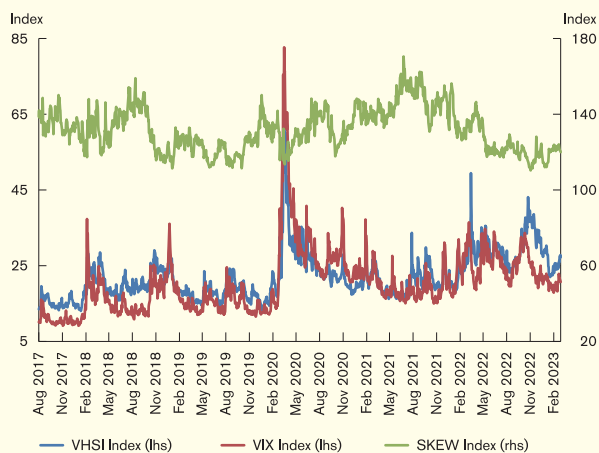
investors were willing to pay more for downside protection amid volatile market condition.³⁶

Chart 4.9
The Hang Seng Index and The MSCI World Index



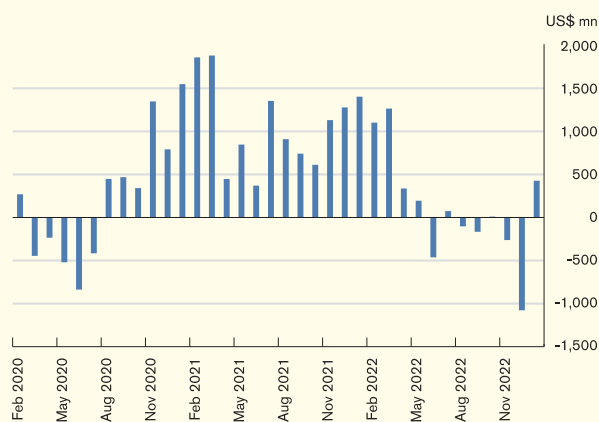
³⁶ The SKEW Index is calculated by the Chicago Board Options Exchange from the prices of the S&P 500 out-of-the-money options. A SKEW value of 100 means that the probability of outlier negative returns on a 30-day horizon is negligible. As the SKEW rises above 100, the left tail of the S&P 500 returns distribution acquires more weight, suggesting that the probability of outlier negative returns has become more significant. For details, see <https://www.cboe.com/products/vix-index-volatility/volatility-indicators/skew>.

Chart 4.10
Option-implied volatilities of the Hang Seng Index and the S&P 500 Index, and the SKEW Index



Source: Bloomberg.

Chart 4.11
Equity market fund flows into Hong Kong

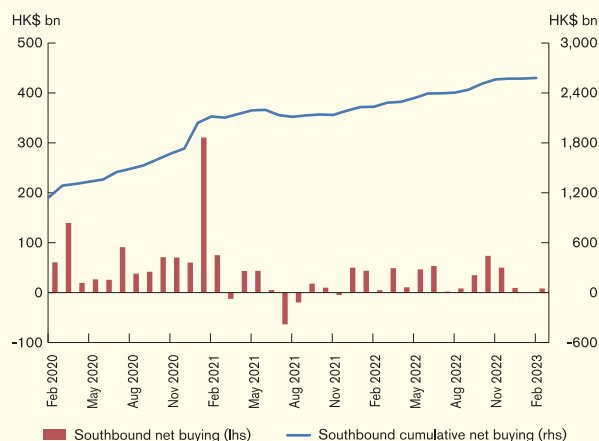


Source: EPFR Global.

In tandem with the outflows from equity market funds globally, equity market funds registered net outflows from Hong Kong between August 2022 and January 2023 (Chart 4.11), suggesting that international investors have stayed cautious with equity investments amid tightened monetary conditions.

By contrast, Mainland investors remain keen on investing in the Hong Kong equity market, with the southbound Stock Connect registering a net inflow of HK\$176.8 billion between the end of August 2022 and the end of February 2023. During the review period, the cumulative net buying amount increased by 7.4% to HK\$2,580.4 billion (Chart 4.12).

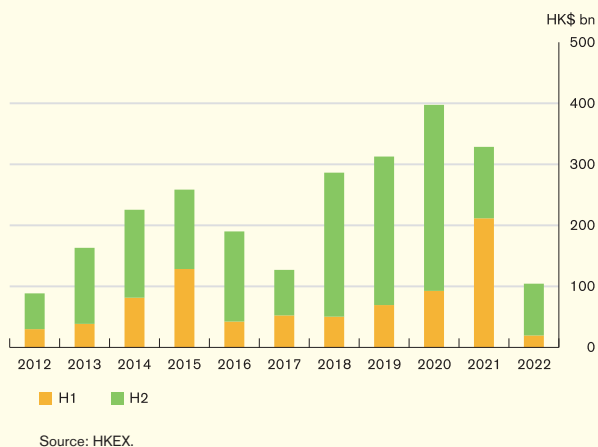
Chart 4.12
Net buying through southbound Stock Connect over time



Note: Southbound net buying is the sum of such buying on the Shanghai-Hong Kong Stock Connect and the Shenzhen-Hong Kong Stock Connect.
Sources: CEIC and HKMA staff estimates.

The initial public offering (IPO) activities in Hong Kong rebounded in the second half of 2022. The amount raised through IPO in the second half of 2022 increased three times compared with the first half, due partly to a low-base effect (Chart 4.13). The resurgence of Hong Kong’s IPO activities is expected to continue in 2023 with improvement in market sentiment, as well as the introduction of a new listing regime that will promote the listing of Specialist Technology Companies (STCs).³⁷

Chart 4.13
Initial public offering market in Hong Kong



The near-term outlook of local equity market will be subjected to a number of factors. On the one hand, higher for longer interest rates and significant growth slowdown in AEs, if materialised, can hurt financial performance of corporates, while lingering geopolitical tensions such as the Russia-Ukraine conflict will continue to weigh on market sentiment. On the other hand, the rapid re-opening of the Mainland economy may help boost the prospects of the Hong Kong equity market.

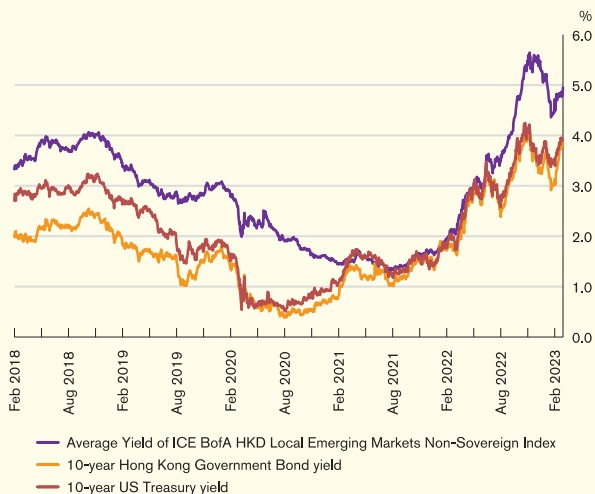
4.4 Debt market³⁸

Along with the monetary tightening in the US, the yields of US 10-year Treasury and Hong Kong dollar 10-year Government Bond surged and reached above 4% in late October 2022 (Chart 4.14). The yields eased afterwards, before going up in February 2023. The yield of Hong Kong dollar corporate bonds rose at an even faster pace and remained at an elevated level. The rising bond yields have dampened investor appetite, as reflected by net outflows from Hong Kong by bond market funds between August 2022 and January 2023 (Chart 4.15).

³⁷ In October 2022 the Hong Kong Exchanges and Clearing Limited (HKEX) issued a consultation paper on new listing regime for STCs, which proposes to lower the bar for STCs with high growth potential to list on the HKEX. STCs are companies primarily engaged in research, development, and commercialisation and/or sales of products and/or services that apply science and/or technology within an acceptable sector of a Specialist Technology Industry (for example, advanced hardware, next energy and environmental protection, and etc). The proposed new listing regime will be introduced on 31 March 2023.

³⁸ Debt securities statistics reported in this section include bills, bonds, notes, negotiable certificates of deposit, commercial paper, debentures, asset-backed securities, and similar instruments normally traded in the financial markets that serve as evidence of a debt.

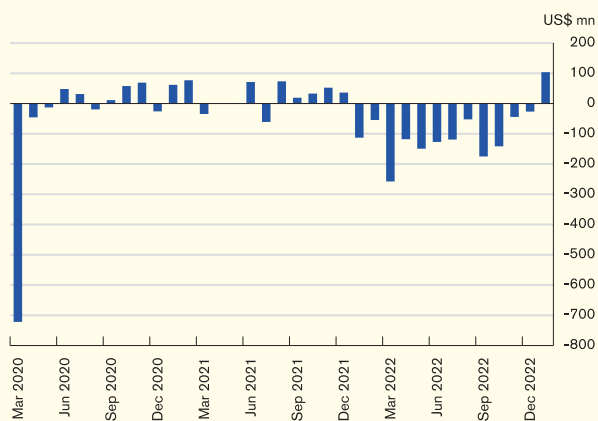
Chart 4.14
Yields of 10 year US Treasury, 10-year Hong Kong Government Bond, and Hong Kong dollar corporate bonds



Note: The ICE BofA HKD Local Emerging Market Non-Sovereign Index, which covers Hong Kong dollar bonds issued by corporates and quasi government entities, captures the movement in yields of Hong Kong dollar corporate bonds.

Sources: ICE Data Indices, Bloomberg and HKMA.

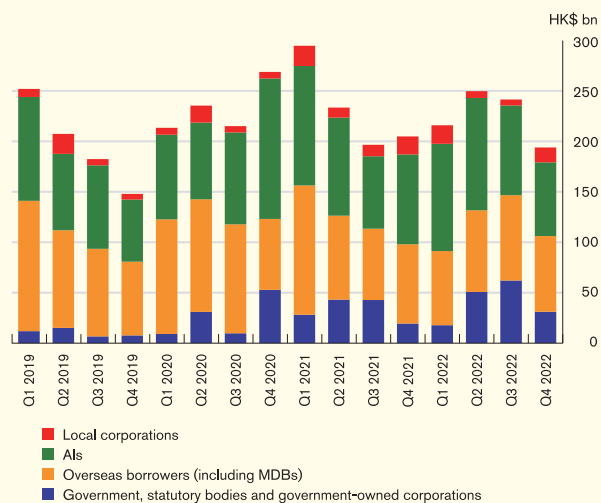
Chart 4.15
Bond market fund flows into Hong Kong



Source: EPFR Global.

Despite the rising bond yields, the total issuance of Hong Kong dollar debt increased by 8.9% to HK\$4,720.4 billion in 2022, from the preceding year. The growth is supported by a rise in local public sector issuance, which more than offsets the decline in issuance by local corporations and overseas borrowers (Chart 4.16).

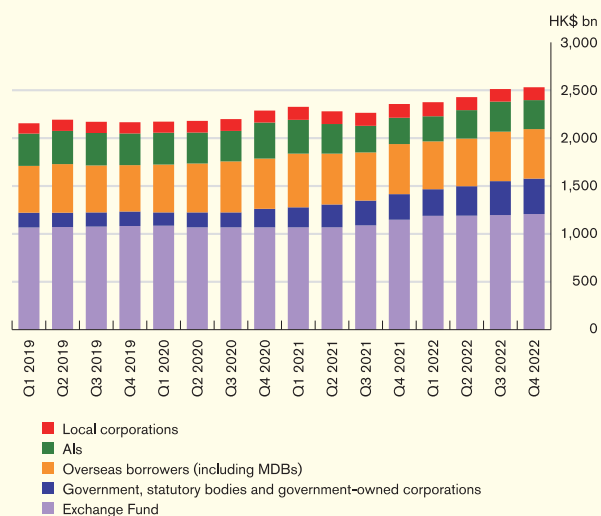
Chart 4.16
New issuance of non-EFBN Hong Kong dollar debt



Source: HKMA staff estimates based on data from Bloomberg, CMU, Dealogic and Reuters.

As a result, the outstanding amount of Hong Kong dollar debt at the end of 2022 rose by 7.4% year-on-year to HK\$2,531.9 billion (Chart 4.17). The amount was equivalent to 31.2% of Hong Kong dollar M3, and to 25.0% of the Hong Kong dollar-denominated assets of the banking sector. Within the local public sector, outstanding non-EFBN debt rose sharply by 38.7% year-on-year to HK\$369.2 billion, while outstanding EFBN debt grew by 5.1% to HK\$1,207.5 billion.

Chart 4.17
Outstanding Hong Kong dollar debt by issuer



Source: HKMA staff estimates based on data from Bloomberg, CMU, Dealogic and Reuters.

The CNH debt market in Hong Kong also grew in 2022. The total new issuance in 2022 increased by 24.4% to RMB688.0 billion compared with preceding year. The growth was mainly contributed by a sharp rise in issuance of CNH CDs, which increased 2.5 times to RMB370.8 billion in 2022 from the preceding year. This more than offsets the reduction in non-CDs CNH debt issuance (Chart 4.18). As a result, the total outstanding amount of CNH debt securities saw a 40.2% year-on-year increase to RMB 949.3 billion at the end of 2022 (Chart 4.19).

Chart 4.18
New issuance of CNH debt securities in Hong Kong

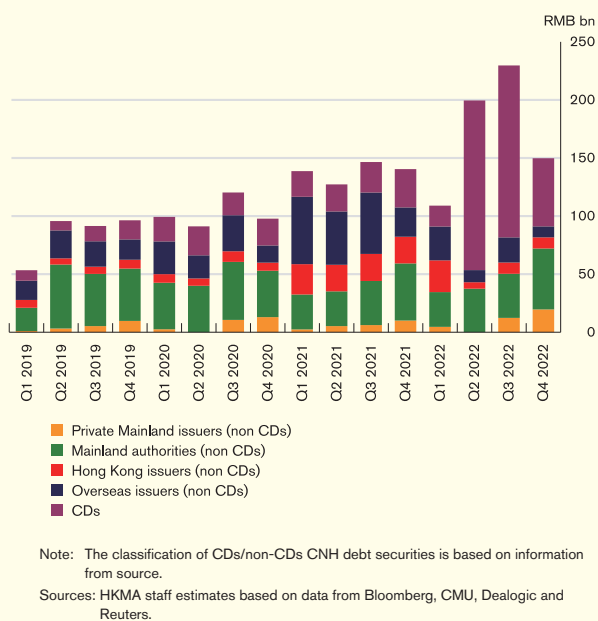
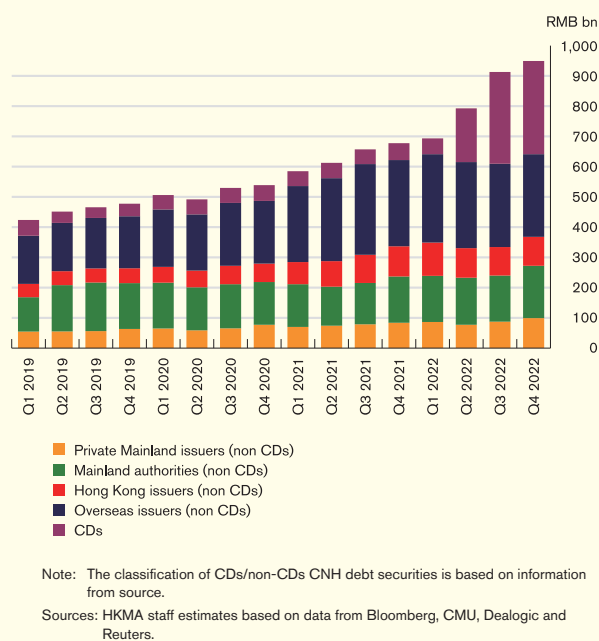


Chart 4.19
Outstanding CNH debt securities issued in Hong Kong



The near-term outlook of the Hong Kong debt market hinges on a host of factors. For instance, corporates may hold back debt issuance amid the rising debt financing cost and risks of significant growth slowdown in advanced economies, while policy supports to the Mainland economy could help lift the demand for CNH debt securities.

During the review period, the local debt market continued to attract Mainland entities to issue offshore renminbi bond. For instance, the People’s Government of Hainan Province and the Shenzhen Municipal People’s Government each issued RMB 5 billion worth of CNH bonds in Hong Kong in November 2022. The issuance by the People’s Government of Hainan Province is the first CNH bond issuance in Hong Kong by a Chinese provincial government.

In addition, in promoting green and sustainable bonds in Hong Kong, on 5 January 2023, the Hong Kong Government announced the successful offering of US \$5.75 billion worth of green bonds, denominated in US dollar, euro and renminbi, under the Government Green Bond Programme. This triple-currency offering, which was the largest environmental, social and governance (ESG) bond offering in Asia, has attracted participation from a diverse group of conventional and green investors. Besides, on 16 February 2023, the Hong Kong Government announced the successful offering of HK\$800 million of tokenised green bond under the Government Green Bond Programme, the first tokenised green bond issued by a government globally.

Together, these issuances have strengthened Hong Kong's status as a global offshore renminbi centre, and a premier green and sustainable finance hub in Asia.

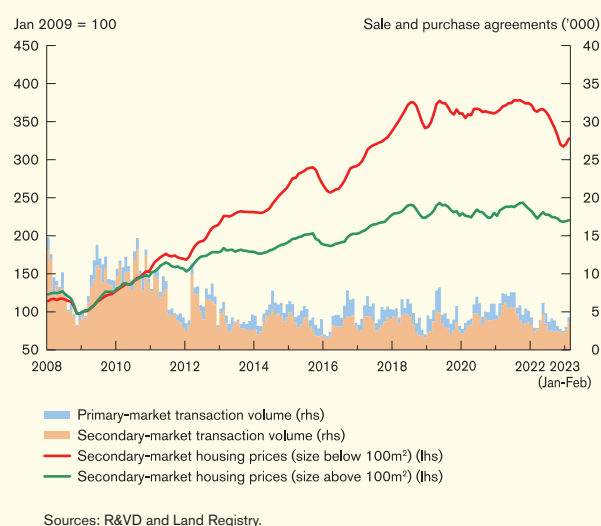
4.5 Property markets

Residential property market

The residential property market was under pressure in the second half of 2022 amid tightened financial conditions and weak economic activities. The viewing of flats and transaction activities moderated, while the sales momentum of new launches by developers also declined. Average monthly transactions fell successively to 3,894 units in the third quarter and 2,795 units in the fourth quarter. Together with a generally quiet first half due partly to the local epidemic, the total transaction volume dropped to 45,050 units in 2022, down 39% from 2021 and becoming the lowest level on record (Chart 4.20).

Secondary-market housing prices also softened in the second half of 2022, as market sentiment deteriorated and more home sellers were willing to cut their asking prices. Analysed by size, the price for small and medium-sized flats (with a saleable area of less than 100m²) saw a sharper decline than for large flats (with a saleable area of at least 100m²) (Chart 4.20). For 2022 as a whole, residential property prices recorded an orderly adjustment of 15%.

Chart 4.20
Residential property prices and transaction volumes



Moving into 2023, the housing market showed signs of stabilisation as market sentiment revived alongside the resumption of travel between Mainland China and Hong Kong. Transaction volume picked up in January and February, and the Centa-City Leading Index of housing prices increased by about 5% during the same period.

Housing affordability remained stretched, despite some signs of improvement in the second half of 2022. Mainly reflecting the downward adjustment of housing prices, the housing price-to-income ratio moderated to 15.6 in the fourth quarter, slightly higher than the peak value of about 15 in 1997. The income-gearing ratio also eased to 72.3%, still well above the long-term average, with the effect of lower flat prices partly offset by the impact of higher

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mortgage rates (Chart 4.21).³⁹ In the leasing market, housing rentals generally eased in the second half of 2022 and early 2023 (Chart 4.22). Residential rental yields stayed low at 2.5% in January 2023.

Chart 4.21
Indicators of housing affordability

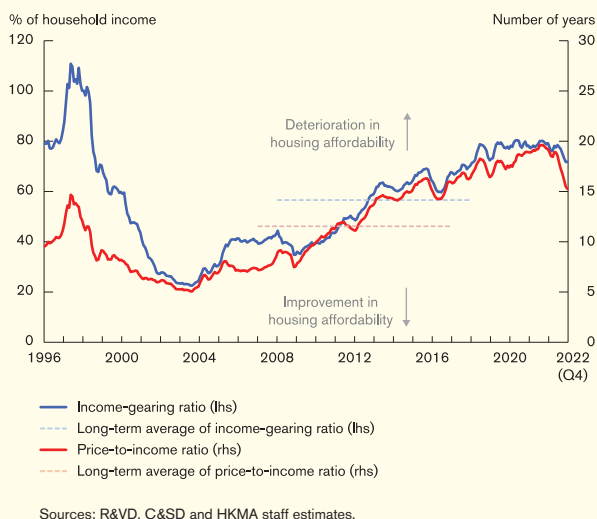
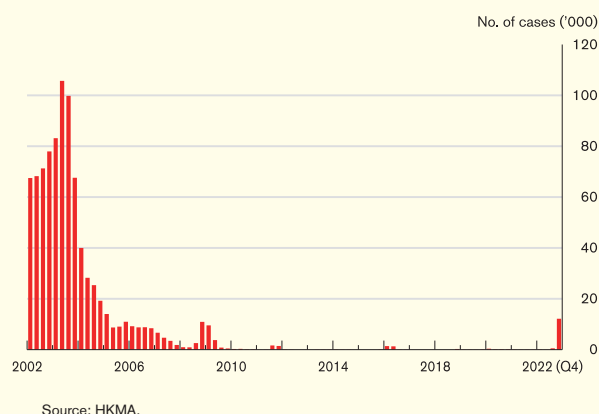


Chart 4.22
Residential property rental index



Following the US Fed's successive policy rate hikes, major banks have raised their Best Lending Rates and the interest rate cap of their HIBOR-based mortgage plans since September 2022, putting an additional burden on borrowers' mortgage repayments (see also section 4.2). The estimated number of residential mortgage loans (RMLs) in negative equity increased to 12,164 cases at end-December 2022 as housing prices softened (Chart 4.23). These cases were related to bank staff housing loans or RMLs under the Mortgage Insurance Programme (MIP), which generally have a higher LTV ratio. It should be noted that the MIP has strict requirements on the applicant's repayment ability. In fact, the delinquency ratio of RMLs under the MIP was 0.01% at end-December 2022, which is even lower than the 0.06% delinquency ratio of RMLs for the whole banking sector, suggesting the loan quality under the MIP is very high. Looking ahead, the continued recovery of the labour market is expected to help households meet their mortgage obligation and thus contain any upward pressures on the delinquency ratio of RMLs. As such, the risks relating to banks' RMLs are considered to be manageable.

Chart 4.23
Residential mortgage loans in negative equity



³⁹ 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 mortgage payment for a typical 50m² flat (under a 20-year mortgage scheme with a 70% loan-to-value 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 under HKMA prudential measures.

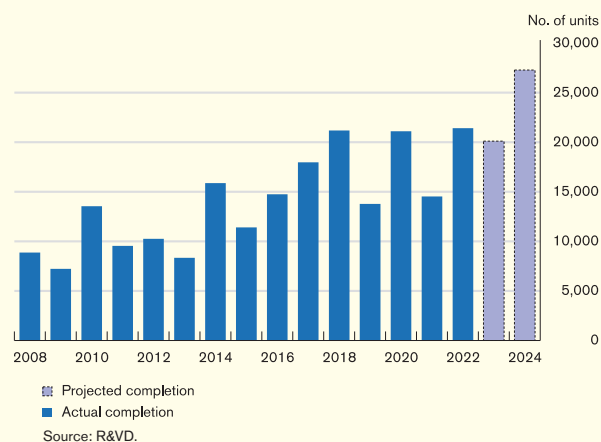
More broadly, the macro-prudential measures introduced by the HKMA since 2009 have helped contain household leverage and strengthen banks' risk management for mortgage loans, thereby improving their resilience to interest rate and property market shocks. The average loan-to-value ratio for new mortgages was about 59% in January 2023, below the prevailing ratio of 64% before the measures were first introduced. The debt-servicing ratio also stayed low at around 39% and borrowers are stress-tested to ensure their ability to withstand rising interest rates. Indeed, over half of the private housing units did not have any outstanding mortgages at the end of 2022. However, the public should be prepared for the likelihood that banks' lending rates may increase further, and should carefully assess and manage the relevant risks when making property purchases and mortgage decisions.

The residential property market outlook is subject to a number of uncertainties and risks as discussed in previous chapters. In particular, higher mortgage interest rates and greater short-term private housing supply⁴⁰ may continue to cloud the housing market outlook, while the normalisation of cross-boundary travel between Mainland China and Hong Kong may release pent-up demand and revitalise market sentiment. Over the longer term, the outlook for the housing market will depend on the supply-demand gap. The Government projects that private housing supply will remain high in the coming years (Chart 4.24).⁴¹

⁴⁰ Data from the Housing Bureau indicate that unsold units of completed projects were at a recent high of 16,000 at the end of 2022.

⁴¹ In addition, total private first-hand flat supply in the coming three to four years is expected to rise to a record high of 105,000 units as estimated by the Housing Bureau at end-2022.

Chart 4.24
Private flat completion



Non-residential property market

The non-residential property market turned more sluggish in the second half of 2022. Average monthly transactions decreased to 1,120 units during the period, while speculative activities remained small (Chart 4.25). Partly reflecting the interest rate hikes, the prices for office space, retail premises and flatted factories retreated (Chart 4.26). In the leasing market, rentals for commercial properties also generally stayed soft along with weakening economic activities (Chart 4.27). Rental yields across the segments remained at a low range of 2.7–3.1% in January 2023.

Chart 4.25
Transactions in non-residential properties

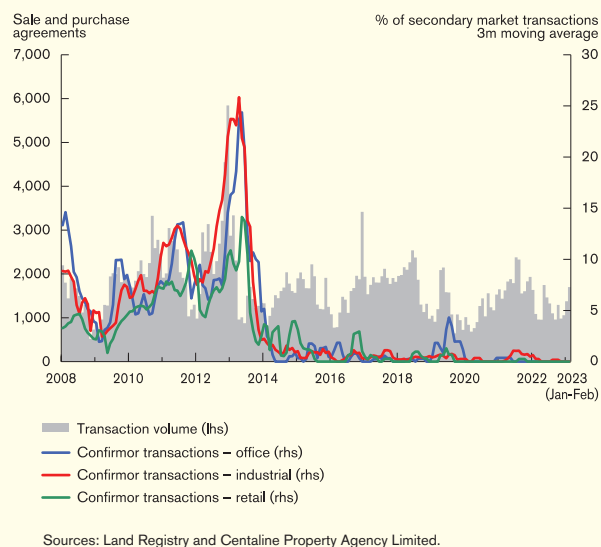
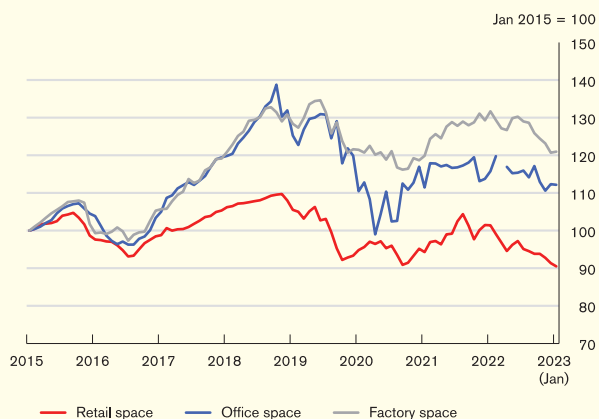
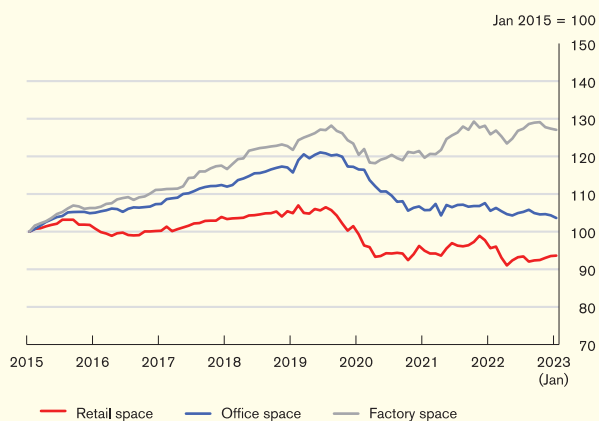


Chart 4.26
Non-residential property price indices



Note: The price index of office space cannot be compiled in March 2022 due to insufficient data for analysis.
Source: R&VD.

Chart 4.27
Non-residential property rental indices



Source: R&VD.

The outlook for the non-residential property market will hinge on a number of counteracting factors. For instance, the reopening of Mainland China and Hong Kong is expected to drive the recovery of inbound tourism and therefore provide some support to the retail segment. On the other hand, the prevailing high vacancy rate, coupled with more new supply in the near term, may continue to weigh on the rental and capital values of commercial properties.