The Hong Kong dollar remained in the strong side of the Convertibility Zone during the review period, despite seeing some softening in July due to risk-off sentiment in the local equity market. With abundant Hong Kong dollar liquidity, Hong Kong Interbank Offered Rates (HIBORs) remained soft. Overall, the Hong Kong dollar exchange and money markets continued to trade in a smooth and orderly manner. Looking ahead, volatilities in fund flows could increase amid uncertainties arising from US monetary policy, lingering China-US tensions, the pace of economic recovery along with the development of the COVID-19 pandemic, as well as the equity-market activities. Nonetheless, Hong Kong is able to withstand the volatilities, given its ample foreign reserves and robust banking system.

Exchange rate and capital flows

Overall, the Hong Kong dollar remained in the strong side of the Convertibility Zone and continued to trade in a smooth and orderly manner. The Hong Kong dollar softened slightly against the US dollar in March and early April (Chart 4.1), due partly to weaker buying interest from the southbound Stock Connects (Chart 4.2), and partly to the repatriation of initial public offering (IPO) proceeds by some newly listed companies after a series of fund-raising activities in 2020 and early 2021 (Chart 4.3). The Hong Kong dollar then firmed again in the second quarter, due to the resumption of southbound inflows and corporates' needs to pay dividends.

Stepping into July, the Hong Kong dollar saw some softening due to risk-off sentiment in the local equity market. In particular, the southbound Stock Connects saw the largest monthly net outflows in July³¹. Nonetheless, the robust IPO pipeline provided support to the Hong Kong dollar³².

With total deposits increasing moderately during the review period, there was no sign of significant outflows from the Hong Kong banking system³³. Meanwhile, the latest Balance of Payment statistics showed that non-residents' direct investment inflows into Hong Kong continued in the first half of 2021.

Chart 4.1 Hong Kong dollar exchange rate

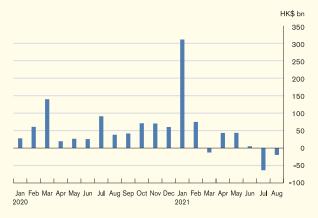


The total net southbound outflow was around HK\$63.5 billion in July.

Data from Hong Kong Exchanges and Clearing (HKEX) shows 213 active applications for listing in Hong Kong as at 31 August 2021. Nine of the companies have received listing approval, while the applications of 204 companies were still being processed.

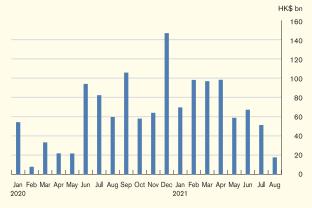
For a detailed analysis of Hong Kong's deposit growth, see

Chart 4.2 Net buying flows through southbound Stock **Connects**



Sources: CEIC and HKMA staff estimates.

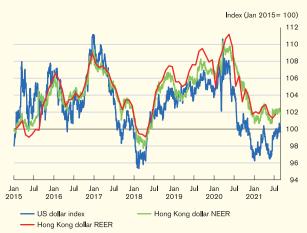
Chart 4.3 **Equity funds raised in HKEX**



Source: HKEX.

Following the appreciation of the US dollar against major currencies, the Hong Kong dollar nominal effective exchange rate index (NEER) picked up during the review period (Chart 4.4). The Hong Kong dollar real effective exchange rate index (REER) generally tracked the movement of the NEER, as the small inflation differential between Hong Kong and its trading partners had only a limited impact on the REER.

Chart 4.4 **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 the US Federal Reserve (Fed)'s monetary policy, lingering China-US tensions, the pace of economic recovery along with the development of the COVID-19 pandemic, as well as the equitymarket activities may heighten volatility in fund flows. Specifically, the stronger-than-expected US inflation outturns, if persistent, may induce a repricing of the US monetary policy outlook. Any sharp rise in US Treasury yields together with associated volatilities in global financial markets may complicate fund flow movements around the globe. Nevertheless, given its ample foreign reserves and robust banking system, Hong Kong is able to withstand the volatilities in fund flows without compromising its financial stability.

4.2 Monetary environment and interest rates

Hong Kong's monetary environment remained accommodative during the review period. As the Convertibility Undertakings were not triggered, the Aggregate Balance (AB) was largely unchanged in the first eight months of 2021 (Chart 4.5).³⁴ Overall, the Monetary Base edged up by 0.8% in the first eight months, mainly driven by an increase in Certificates of Indebtedness (CIs). The broader monetary aggregates also witnessed a moderate increase. Excluding deposits created from IPO loans, the Hong Kong dollar broad money (HK\$M3) and the Hong Kong dollar deposits grew moderately by 2.0% and 2.3% respectively during the first seven months (Chart 4.6).

Chart 4.5 The AB and EFBNs

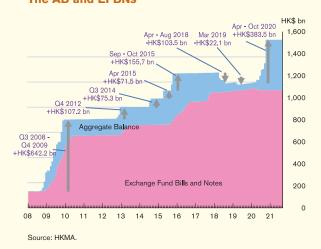


Chart 4.6 **Deposits with Authorized Institutions (Als) by** currency



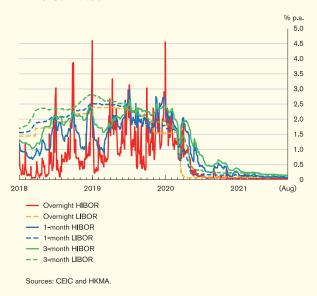
Foreign currency deposits also grew moderately, by 3.1%, in the first seven months, within which US dollar deposits reverted to a 1.3% increase following a modest decline in the preceding review period (Chart 4.6). Other foreign currency deposits continued to pick up strongly, by 7.9%, underpinned by the rise in renminbi deposits.

Excluding deposits created from IPO loans, total deposits increased moderately by 2.7% during the first seven months of 2021. It should be noted that monthly monetary statistics are subject to volatility due to a wide range of transient factors, such as seasonal and IPOrelated funding demand as well as business and investment-related activities. Caution is required when interpreting the statistics.

With abundant liquidity in the banking system, HIBORs remained largely stable at low levels during the review period (Chart 4.7). The impact of IPOs remained limited as HIBORs of various tenors did not witness large fluctuations. As a result of low funding costs, the average lending rate for new mortgages dropped further to 1.48% in July. On the other hand, the Best Lending Rates of major retail banks stayed unchanged at between 5.00% and 5.50% during the review period.

On 25 August, the HKMA announced a plan to increase the issuance size of 91-day Exchange Fund Bills by HK\$5 billion in each of the eight regular tenders on 7, 14, 21 and 28 September and 5, 12, 19 and 26 October 2021. If all the planned increases are executed, the outstanding Exchange Fund Bills and Notes (EFBNs) will increase by HK\$40 billion and the AB will decline correspondingly by the same amount. The increase in the supply of Exchange Fund Bills is consistent with Currency Board principles, since the additional issuance simply represents a change in the composition of the Monetary Base with a shift from the AB to EFBNs. The Monetary Base remains fully backed by foreign exchange reserves.

Chart 4.7 Hong Kong dollar and US dollar interbank interest rates

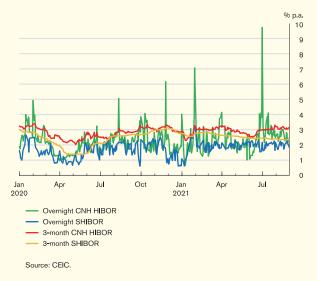


Overall, Hong Kong's interbank market continued to trade in a smooth and orderly manner. The abundant liquidity in the banking system should provide a sizeable cushion in the event of large-scale capital market activities or financial market turbulence.

Offshore renminbi banking business

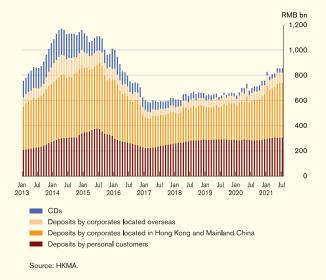
The functioning of the offshore renminbi (CNH) interbank market was normal in the review period³⁵, with the overnight CNH HIBORs moving within a range of around 1% to 3% between April and early June (Chart 4.8). The overnight interbank rate witnessed noticeable fluctuations in late June, driven by seasonal liquidity demand near the half-year end. On the other hand, the three-month CNH HIBORs remained relatively steady, hovering around 3% throughout the review period.

Chart 4.8
Overnight and three-month CNH HIBOR fixings



Hong Kong's CNH liquidity pool further expanded. For the first seven months as a whole, total outstanding renminbi customer deposits and certificates of deposit (CDs) grew by 12.9% to RMB854.7 billion (Chart 4.9 and Table 4.A). Within the total, renminbi customer deposits picked up by 13.7%, more than offsetting the 4.4% decline in the outstanding amount of CDs. The growth in renminbi customer deposits was led by corporate customers' deposits.

Chart 4.9
Renminbi deposits and CDs in Hong Kong



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

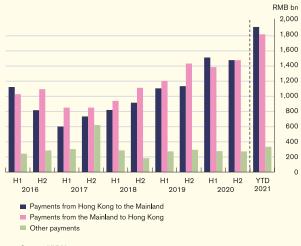
Table 4.A Offshore renminbi banking statistics

	Dec 2020	Jul 2021
Renminbi deposits & CDs (RMB bn)	757.2	854.7
Of which:		
Renminbi deposits (RMB bn)	721.6	820.8
Share of renminbi deposits in total deposits (%)	5.9	6.6
Renminbi CDs (RMB bn)	35.5	33.9
Renminbi outstanding loans (RMB bn)	152.1	186.6
Number of participating banks in Hong Kong's renminbi clearing platform	206	207
Amount due to overseas banks (RMB bn)	99.4	136.7
Amount due from overseas banks (RMB bn)	97.3	119.9
	Jan - Jul 2021	
Renminbi trade settlement in Hong Kong (RMB bn) Of which:	4,020.0	
Inward remittances to Hong Kong (RMB bn)	1,796.9	
Outward remittances to Mainland China (RMB bn)	1,893.0	
Turnover in Hong Kong's RMB real time gross settlement (RTGS) system (Daily average during the period; RMB bn)	1,531.2	

Source: HKMA.

Other renminbi business continued to gather strength. Outstanding renminbi loans rose by 22.6% to RMB186.6 billion in the first seven months of 2021. Hong Kong's renminbi trade settlement also continued to pick up. Transactions handled by banks in Hong Kong amounted to RMB4,020.0 billion during the first seven months (Chart 4.10), up 7.9% compared with RMB3,724.4 billion during the same period last year. The growth in trade settlement transactions was mainly driven by an increase in inward remittances to Hong Kong. The renminbi liquidity pool in Hong Kong continued to support a large amount of renminbi payments and financing transactions. During the first seven months, the average daily turnover of the renminbi RTGS system stayed high at RMB1,531.2 billion, compared with RMB1,201.1 billion in the same period in 2020.

Chart 4.10 Flows of renminbi trade settlement payments



Source: HKMA.

Going forward, Hong Kong's offshore renminbi business is expected to benefit from the ongoing liberalisation of Mainland's capital account through the multiple Connect schemes, international investors' rising demand for renminbi assets, as well as deepening regional economic and financial cooperation under the Belt and Road and the Guangdong-Hong Kong-Macao Greater Bay Area initiatives.

Asset markets

In contrast to the continued rally in major equity markets, the Hong Kong stock market remained subdued, affected mainly by sharp declines in tech stocks and worries about virus mutations. Meanwhile, the Hong Kong dollar and offshore renminbi debt markets expanded steadily in the first half of 2021. Amid positive property market sentiment and better economic prospects, both the residential and non-residential property markets regained some upward momentum.

4.3 **Equity market**

During the review period, major equity markets continued to rally, with the MSCI World Index hitting an all-time high of 3,147 points on 30 August (Chart 4.11). Other than the support of accommodative monetary policy and stimuli from fiscal measures, a pick-up in the pace of rolling out COVID-19 vaccinations, together with upbeat quarterly corporate earnings reported in major economies, contributed to the rally.

In contrast to the continued rally in the major equity markets, the Hong Kong equity market remained subdued, with optimism tempered by worries of virus mutations and sharp declines in tech stocks. The Hang Seng Index (HSI) retreated from a year-high of over 31,000 points in mid-February, hovered between 28,000 and 30,000 points in the second quarter and then declined steadily to around 26,000 points towards the end of the review period. The underperformance of the HSI relative to the major markets was partly due to sharp corrections in some tech stocks in the HSI constituents.

Overall, the local market declined by 10.7% from end-February to August 2021, while the MSCI World Index gained 15.2% in the same period (Chart 4.11). Option-implied volatilities have been declining steadily, despite a few occasional

short-lived jumps, and stayed below prepandemic levels at the end of the review period. Meanwhile, the SKEW Index has remained high, reflecting investors' worries about the possibility of an overdue correction from the fresh highs of major equity markets and their consequential willingness to pay more to hedge themselves against crashes (Chart 4.12)³⁶.

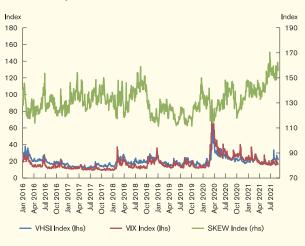
Chart 4.11 HSI and MSCI World Indexes



Sources: Bloomberg and Reuters

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&P500 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 4.12 Option-implied volatilities of the HSI and S&P500, and the SKEW index



Sources: Bloomberg and Reuters

Net inflows to the Hong Kong stock market hit a recent peak of US\$1,868.7 million in March, but declined sharply to a monthly average of US\$547.5 million in the second quarter before rebounding to US\$1,344.3 million in July (Chart 4.13). Net buying through the southbound Stock Connects continued in the second quarter after its record-breaking level of HK\$310.6 billion in January. In July and August, however, the southbound Stock Connects registered an outflow of HK\$83.3 billion. Over the review period, the cumulative net buying amount decreased by 0.2% to HK\$2,111.6 billion (Chart 4.14).

Chart 4.13 Equity market fund flows into Hong Kong

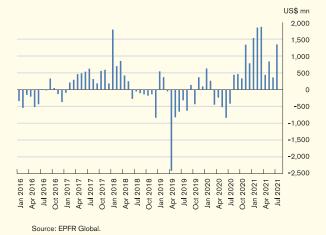
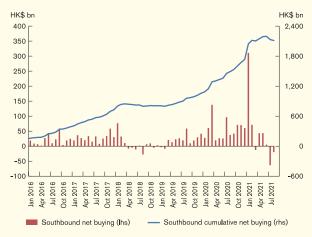


Chart 4.14 Net flows through Stock Connect

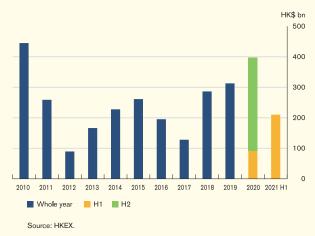


Note: Southbound net buying is the sum of such buying on the Shanghai-Hong Kong Stock Connect and the Shenzhen-Hong Kong Stock Connect.

Sources: CEIC. HKEX and HKMA staff estimates

Hong Kong's primary market saw its strongestever first half in terms of funds raised in 2021 amid a global boom in listings. There were 46 IPOs raising a total of HK\$210.4 billion (Chart 4.15), a year-on-year increase of 126.7% compared with the same period last year. In the first half of 2021, the HKEX ranked third among global IPO rankings in terms of the funds raised, after NASDAQ and the New York Stock Exchange. The surging amount of new-share financing was mainly attributable to the blockbuster listings of Mainland enterprises. Six sizeable Mainland tech and logistics company listings raised a total of HK\$139.6 billion, representing two-thirds of the total funds raised during the first half.

Chart 4.15 IPO market in Hong Kong



The near-term outlook for the local equity market remains uncertain. In terms of the IPO market, the "homecoming" of US-listed Mainland companies would continue to lift the city's capital market. However, market sentiment in the second half may be weighed down by the performance of recent IPO stocks, as 20 out of the 46 companies newly listed in the first half slumped in their trading debuts. Prospects for the secondary stock market are also mixed. On the one hand, the loosening monetary policy in Mainland China and economic recovery will support investors' risk appetite. On the other hand, a number of potential headwinds remain that could increase market volatility in the near term, including the progression of COVID-19 and infections caused by its variants, the increasing concerns about the sustainability of the economic expansion, the outlook on inflation and interest rates, and the ongoing China-US tensions.

4.4 Debt market

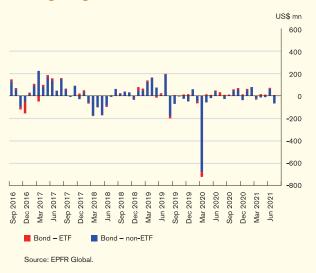
On the back of steady growth in issuances, the Hong Kong dollar debt market continued to expand in the first half of 2021. At the beginning of the review period, market participants were concerned that the unprecedented stimulus and stronger growth might trigger inflationary pressure, leading the 10-year US Treasury yield to rise to a high of 1.7% at the end of March. Since then, the Treasury yield has consolidated as uncertainties about the sustainability of economic recovery in the US and other developed countries mount amid a resurgence in COVID-19 infections due to the more contagious Delta variant. In tandem with the movements of US Treasury yields, the yield of the Hong Kong dollar 10-year sovereign bond climbed in the first quarter and has then consolidated since April (Chart 4.16).

Chart 4.16 Hong Kong dollar sovereign and non-sovereign bond yields and 10-year US Treasury yield



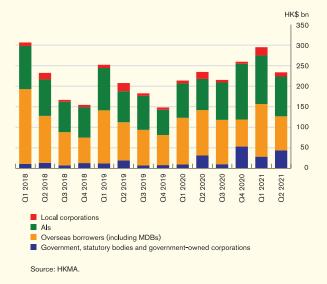
The rising yields in March dampened investor appetite for bonds, triggering a net outflow of bond funds in the month (Chart 4.17). Flows of bond funds into Hong Kong picked up in June after two months of consolidation but registered an outflow in July, which was mainly driven by a surge in the outflow of non-exchange traded fund (non-ETF) bond funds. Overall, Hong Kong recorded moderate bond fund inflows in the first seven months of 2021.

Chart 4.17 Flows of ETF and non-ETF bond funds into **Hong Kong**



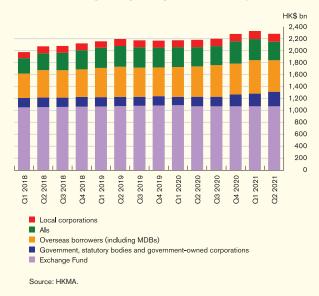
The total issuance of Hong Kong dollar debt in the first half of 2021 increased by 3.1% compared with the same period last year to HK\$2,170.5 billion, despite a mild reduction of 0.9% in the issuance of EFBNs. The increase was driven mainly by a 77.9% increase in non-EFBN issuances by the government sector and a 34.8% increase by AIs (Chart 4.18).

Chart 4.18 New issuances of non-EFBN Hong Kong dollar debt



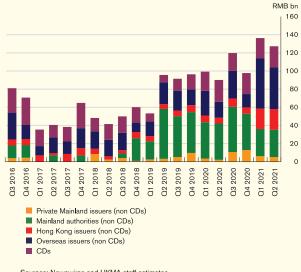
Outstanding Hong Kong dollar debt expanded by 4.6% year on year to HK\$2,279.6 billion at the end of June (Chart 4.19). The amount was equivalent to 26.9% of HK\$M3, and to 22.5% of the Hong Kong dollar-denominated assets of the banking sector. Within the government sector, outstanding non-EFBN debt increased sharply by 51.6% year on year to HK\$243.3 billion, while outstanding EFBN debt edged up by 0.1% to HK\$1,068.4 billion.

Chart 4.19 Outstanding Hong Kong dollar debt by issuer



The CNH debt market in Hong Kong saw a notable expansion in the first half. New issuances jumped by 39.2% compared with the same period last year to RMB263.6 billion. This sharp rise was mainly driven by an increase of 230.9% in issuances by Hong Kong issuers, together with an increase of 123.0% in issuances by private Mainland issuers and overseas issuers. Meanwhile, the issuances of Mainland authorities decreased by 25.0% year on year to RMB60.0 billion (Chart 4.20).

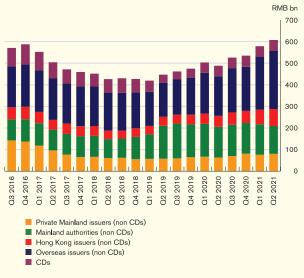
Chart 4.20 New issuances of CNH debt securities in Hong **Kong**



Sources: Newswires and HKMA staff estimates.

Due to the rapid growth in new issuances, total outstanding CNH debt securities recorded a 24.4% year-on-year increase to RMB607.2 billion at the end of June (Chart 4.21).

Chart 4.21 Outstanding CNH debt in Hong Kong

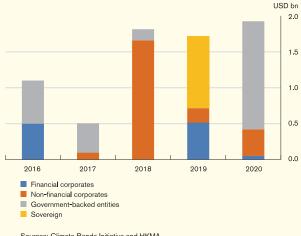


Sources: Newswires and HKMA staff estimates.

Near-term prospects for the Hong Kong dollar and CNH debt markets remain unclear. Uncertainties surrounding the pace of global economic recovery, the development of the pandemic under the rapid spread of the Delta variant, the monetary policies of Mainland China and the US, and the outlook of the renminbi exchange rate could affect market sentiment on the CNH debt market.

Recently, green finance has been an important driver in local bond market development. Over the past few years, Hong Kong issuers have gradually offered more green bonds. The increase was driven mainly by non-financial corporates and government-backed entities (Chart 4.22). Hong Kong's efficient financial market infrastructures and supportive policy initiatives are expected to continue to boost its debt market as a key financing platform for green projects in the region.

Chart 4.22 New issuances of green bonds by Hong Kong issuers



Sources: Climate Bonds Initiative and HKMA.

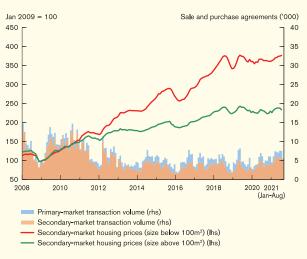
Property markets

Residential property market

The residential property market has regained some upward momentum since the start of this year (Chart 4.23), underpinned by better economic prospects, improving market sentiment and mortgage interest rates that are still low. The average monthly transaction volume bounced up by 23% to 6,657 units in January-August, compared with an average of 5,434 units in the second half of last year. In particular, transactions in the secondary market climbed to a nine-year high in the second quarter, and many new property launches recorded brisk sales.

Secondary-market housing prices also resumed growth, rising by 4.3% in January–July to just below the historical peak in May 2019. Prices of small and medium-sized flats (with saleable area of less than 100m²) increased at a faster pace than the prices of large flats (with saleable area of at least 100m²). More recent market data indicated that housing prices climbed further in August.

Chart 4.23 Residential property prices and transaction volumes



Sources: R&VD and Land Registry.

Housing affordability became more stretched, reflecting higher housing prices but weak growth in household income. The housing price-toincome ratio climbed to 19.6 in the second quarter of 2021, compared with the peak value of 14.6 in 1997. The income-gearing ratio reached a high of 91.8%, well above the long-term average (Chart 4.24)³⁷. Alongside positive market sentiment and a decline in the unemployment rate, housing rentals picked up by 1.6% in the first seven months, albeit still 10.3% below the peak reached in August 2019 (Chart 4.25). As the cumulative rise in housing prices was larger than the pick-up in rentals, the positive buy-rent gap³⁸ enlarged further in January-June. In tandem with the widening of the gap, residential rental yields remained low at 1.9-2.3% in July.

Chart 4.24 Indicators of housing affordability



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

Chart 4.25 Housing rentals



Despite stretched housing affordability, the macro-prudential measures implemented by the HKMA since 2009 helped contain household leverage and safeguard banks' resilience. The average LTV ratio for new mortgages was 56% in July 2021, below the 64% before the measures were first introduced, while the debt-servicing ratio also stayed low at around 37% in January-July.

The residential property market outlook is subject to a number of uncertainties and risks as discussed in previous chapters. On the one hand, renewed deterioration in the pandemic situation (due perhaps to a fifth wave of local infections caused by virus mutations) could weigh on housing market sentiment. On the other hand, the current ultra-low interest rates

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 (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 under HKMA prudential measures.

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.

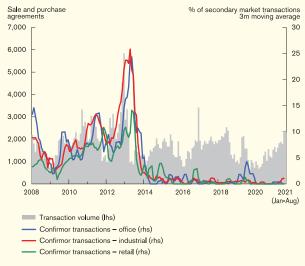
are expected to support asset prices. Over the longer term, the outlook for the housing market will depend on the supply-demand gap. The Government projects that private housing supply will remain high in the upcoming years³⁹.

Non-residential property market

The non-residential property market saw some signs of recovery along with the revival in economic activities. Average monthly transactions picked up in the first eight months, while speculative activities stayed inactive (Chart 4.26). While prices of office space flattened recently, prices of retail premises and flatted factory space went up by 7.3% and 8.7% respectively between January and July, though still below their respective peaks in 2018 or 2019 (Chart 4.27). In the leasing market, rentals of industrial properties recorded a notable increase amid strong growth in Hong Kong's merchandise trade⁴⁰, while rentals of office and retail shop spaces remained soft, partly because of vacancy rates that stayed at a high level (Chart 4.28). Meanwhile, rental yields across segments stayed low at 2.5-2.9% in July. Box 3 studies developments in the non-residential property market using transactional big data and discusses the financial stability implications.

Looking forward, the performance of the nonresidential property market will depend on the pandemic developments, as well as the domestic and external economic environments. In particular, the rising vaccination rate, further relaxation in social-distancing measures, eventual border reopening, as well as continued expansion in domestic consumption and external trade would help the commercial and industrial property markets recover further. That said, the emergence of mutant strains and the uncertainties surrounding the Fed's monetary policy path and the China-US relations may cloud the nonresidential property market outlook.

Chart 4.26 Transactions in non-residential properties



Sources: Land Registry and Centaline Property Agency Limited.

Chart 4.27 Non-residential property price indices



Chart 4.28 Non-residential property rental indices



According to Government projections, more than 18,000 private residential flats will be completed on average annually in 2021-2025, higher than the annual average of the previous five years.

Market reports suggest that the strong growth in Hong Kong's merchandise trade and the associated supply chain bottlenecks may have raised the leasing demand for warehouses.

Box 3 Monitoring Hong Kong's non-residential property market with transactional big data

Introduction

The non-residential property market in Hong Kong has experienced a major correction since 2018, despite recent signs of recovery. As only high-level aggregate data are available, an in-depth assessment of non-residential property market is not feasible, making it difficult to assess implications to financial stability⁴¹. In this regard, this Box explores the big data of property transactions to better monitor the market developments and examine the related financial stability implications.

Use of transaction records

We collected over 200,000 non-residential property transaction records between 2008 and early 2021 from the Land Registry⁴². A typical transaction record consists of several documents, including an agreement for sale and purchase, an assignment and a mortgage deed. By utilising information in these different types of instruments, we are able to assemble a granular dataset which enables us to do analyses that were not feasible before. In particular, we can (i) obtain a breakdown of the transaction data by type, (ii) study the price (i.e. consideration value)

distribution of transactions for each segment, and (iii) monitor the usage of mortgage (but not the loan amount) that originated from banks or non-bank financial companies. These statistics are either incomplete or unavailable in official data publications. In what follows, we discuss some key observations from our preliminary analysis of this rich dataset.

Monitoring developments in the non-residential property market

Transaction volumes and values by segment Official statistics from the Land Registry provide only the aggregated non-residential property transaction volume and value, which cover very diverse types of property transactions, including (i) offices, (ii) retail premises, (iii) industrial buildings, and (iv) car parking spaces. With the new data, we can now identify both transactions and prices of all the four major segments in the non-residential property market⁴³. We find that standalone car parking spaces have become a key contributor to total non-residential property transactions (Chart B3.1). Indeed, their share of the total transaction volume has broadly increased to 50–60% in recent years, although they constituted merely 10% of the total transaction value (Chart B3.2)44.

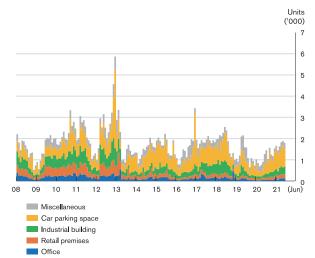
In general, the COVID-19 pandemic has more severe implications for the commercial real estate sector due to social-distancing measures and other post-pandemic behavioural changes, such as remote working. The potential impacts to financial stability have received international attention. For example, see "Chapter 3: Commercial Real Estate: Financial Stability Risks During the COVID-19 Crisis and Beyond", IMF Global Financial Stability Report, April 2021.

In Hong Kong, the Land Registry maintains a public land register that records registered instruments. The register contains ownership particulars for each property and the incumbrances registered against it, such as mortgages and court orders. Property transactions via company share transfers are excluded from the Land Registry records. In practice, we collect our transactional data through the Economic Property Research Centre (EPRC), a property market information provider that consolidates records from the Land Registry into a well-structured format.

In this analysis, industrial buildings comprise flatted factory spaces and "industrial/office" properties, whereas R&VD data include only the former.

Miscellaneous property transactions are excluded in calculating the percentage share.

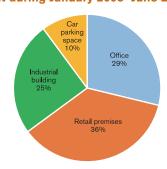




Note: Miscellaneous transactions include external walls, corridors, storage, stairs, lots and other unclassified properties.

Sources: Land Registry, EPRC and HKMA staff estimates.

Chart B3.2 Non-residential property transaction values by segment during January 2008-June 2021



Note: Miscellaneous property transactions are excluded in calculating the percentage

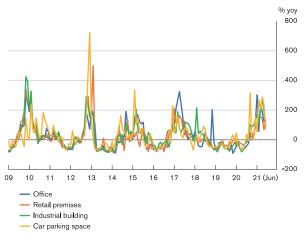
Sources: Land Registry, EPRC and HKMA staff estimates.

Synchronisation across segments

Notwithstanding their diverse nature, non-residential properties exhibited broadly synchronised cycles across all major segments, in terms of both transactions (Charts B3.3) and prices (Chart B3.4). Indeed, while no official price index exists for standalone car parking spaces in Hong Kong, our own estimates⁴⁵ suggest that their prices share broadly similar trends and cyclical patterns with other

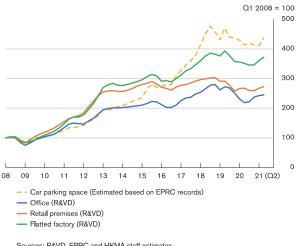
non-residential property prices (Chart B3.4), which have eased since 2018 alongside the China-US tensions and the pandemic.

Chart B3.3 Year-on-year growth in non-residential property transaction volume by segment



Sources: Land Registry, EPRC and HKMA staff estimates.

Chart B3.4 Non-residential property price indices by segment



Sources: R&VD. EPRC and HKMA staff estimates.

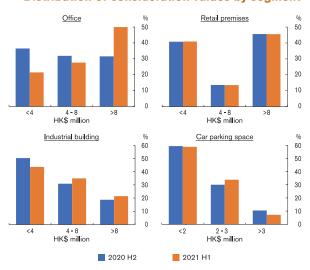
Price distribution of transactions

Prices and transactions in the non-residential property market saw some signs of recovery in the first half of 2021 amid the economic recovery. Our granular data reveals that, compared with the second half of 2020, increased transactions in the office and industrial

We estimate a price index for second-hand standalone car parking spaces by running a hedonic regression based on consideration values from the transactional data, controlling for the districts and types of car parking spaces, such as those for motorcycles or lorries.

segments were concentrated in properties of higher value, while the price distribution in the retail segment was little changed (Chart B3.5). Meanwhile, middle-value car parking spaces were the main driver behind the brisk rise of transactions in this segment.

Chart B3.5
Distribution of consideration values by segment



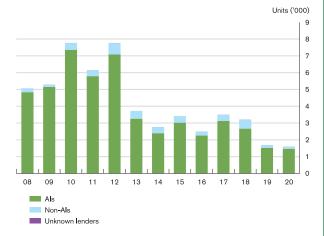
Note: The y-axis refers to the percentage share of transaction volume in each market segment.

Sources: Land Registry, EPRC and HKMA staff estimates.

Mortgage

On the mortgage front, we can now get a glimpse of the presence of non-banks in the non-residential property market. Unsurprisingly, non-bank financial institutions (FIs) also engaged in non-residential mortgage lending in addition to residential mortgage loans (Chart 3.6)⁴⁶. That said, the market share of non-bank FIs remained small in volume terms (Chart B3.7). On the flip side, non-residential mortgage loans still came mostly from Authorized Institutions (AIs) and have seen a larger proportion of car parking spaces over time.

Chart B3.6 Number of mortgage loans granted for financing non-residential property purchases



Sources: Land Registry, EPRC and HKMA staff estimates.

Chart B3.7
Share of mortgage loans granted by lender type and segment



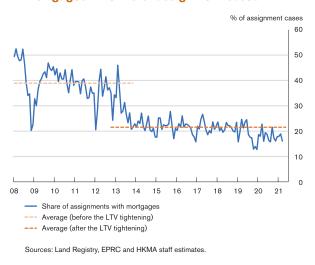
Sources: Land Registry, EPRC and HKMA staff estimates.

For simplicity, we count only the first mortgage loans granted for financing property transactions and exclude all subsequent remortgages.

Financial stability implications

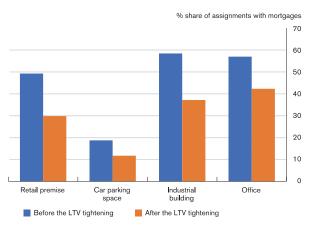
Besides enhanced surveillance, our new data can also shed light on financial stability. Our preliminary analysis suggests that the weakness in the non-residential property market would not pose significant risks to domestic banking stability⁴⁷. First, bank exposures have already been limited by the previous loan-to-value (LTV) cap tightening in 2013, as indicated by a notable decrease in mortgage usage since that year to around only 20% of total assignment cases (Chart B3.8). In February 2013, the HKMA introduced the sixth round of macro-prudential measures amid exuberant developments in the property markets. In particular, the LTV caps for all kinds of commercial and industrial properties were lowered by 10 percentage points. Second, the impact of the LTV tightening (i.e. the macroprudential measures) was broad-based across all major segments (Chart B3.9)48. Third, the latest available data suggests that recent mortgage usage is still low (Chart B3.8).

Chart B3.8 Share of non-residential properties with mortgages in terms of assignment cases



- In particular, the prices of offices and retail premises fell by at most 29% and 17% respectively between 2018 and 2020. Meanwhile, the gross classified loan ratio of all AIs picked up just marginally from 0.55% to 0.90%.
- It is interesting to note that the reduction of mortgage usage to buy car parking spaces was comparatively smaller than those in other segments. This is probably because the lump-sum value of car parking spaces is usually much lower compared with other types of non-residential properties. In any case, the buyers of car parking spaces were less reliant on mortgage financing in general.

Chart B3.9 Share of non-residential properties with mortgages by segment



Note: Before the LTV tightening: 1 January 2008 to 22 February 2013; after the LTV tightening: 23 February 2013 to 19 August 2020. Sources: Land Registry, EPRC and HKMA staff estimates

Concluding remarks

Using transaction-level data, this box studies developments in the non-residential property market. We find that the big data on nonresidential property market offers new insights for surveillance and financial stability analysis. We can now identify both the prices and transactions of all the four major segments, including standalone car parking spaces, which were broadly synchronised with one another, and can drill down into the details of price distribution. Non-bank FIs also engaged in non-residential mortgage lending in addition to residential mortgage loans, but their market share remained small. Our analysis suggests the weakness in the non-residential property market would not pose significant risks to banking stability, as bank exposures have already been limited by the previous LTV cap tightening in 2013, that is, through the sixth round of macroprudential measures, and the latest available data suggests mortgage usage is still low.