HONG KONG MONETARY AUTHORITY
香港金融管理局

HALF-YEARLY MONETARY AND FINANCIAL STABILITY REPORT

September 2025

This Report reviews statistical information between the end of February 2025 and the end of August 2025.

Half-Yearly Monetary and Financial Stability Report
September 2025

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1. Summary and overview

In the period under review, the global economic environment experienced some turbulence due to heightened uncertainty over US trade policy. Widespread imposition of tariffs and expansionary fiscal policies by the US government have rekindled US inflation concerns, prompting the Federal Reserve (Fed) to adopt a more cautious monetary policy approach. The US tariffs have also brought significant headwinds to Asia-Pacific (APAC) economies, with signs of strain emerging in some of the more externally-exposed segments. Despite these uncertainties, global financial markets have remained buoyant, raising concerns over mispricing of risks and market volatility ahead.

Hong Kong's exchange rate and money markets continued to trade in a smooth and orderly manner. Bank credit reverted to positive growth during the review period while total deposits continued to increase. Furthermore, residential property market activities have improved in the face of easing financial conditions, and housing prices have also shown further signs of stabilisation. Looking ahead, uncertainties over global trade tensions, potential risks arising from fund flow volatility, and the subdued performance of some local economic sectors, will continue to pose challenges to the Hong Kong banking sector. Banks should stay vigilant in assessing the impacts of these risk factors on the asset quality of their loan portfolios.

The global economy is navigating significant trade policy headwinds after the US government introduced reciprocal tariffs in early April. The tariff measures, coupled with expansionary US fiscal policies, have rekindled US inflation concerns and prompted the Fed to adopt a more cautious monetary policy approach. With heightened uncertainty on the one hand, and buoyant global markets on the other, there is the potential for the mispricing of risks and market volatility.

Apart from these macroeconomic risks, cyber risks have become a growing concern for financial stability. The increasing frequency and severity of cyber incidents that affect financial institutions may erode their clients' confidence and trigger abrupt withdrawals of funding. Box 1 analyses the liquidity risks of investment funds resulting from cyber incidents.

Growth in APAC economies remained resilient in the first half of 2025, but signs of strain have emerged in some more externally-exposed segments. The imposition of US tariffs may also impact the region's integrated supply chain networks. Box 2 examines the most recent trends and developments relating to greenfield foreign direct investment into the region and discusses their policy implications.

In Chinese Mainland, economic growth remained solid at 5.3% year on year in the first half of 2025, in line with the official annual growth target of around 5%. In response to the US tariff hikes, the authorities stepped up policy support and prioritised consumption, particularly of services. Merchandise exports performed better than expected due to export front-loading and market diversification. However, the economic outlook continues to face uncertainties and risks, such as potential US tariffs and a weak local housing market.

In Hong Kong, the economy registered robust growth in the first half of 2025, driven by resilience in goods exports as well as improvement in domestic demand. Looking ahead, the widespread imposition of US tariffs is likely to weigh on merchandise exports growth. However, multifaceted supportive measures, coupled with Chinese Mainland's economic stimulus measures, may help boost business sentiment. The outlook is subject to various external risks and uncertainties, especially those related to US trade policies and the pace of the US interest rate cuts.

The Hong Kong dollar (HKD) exchange and money markets continued to trade in a smooth and orderly manner. The HKD firmed in April due to buoyant capital market activities. In early May, amid sharp appreciation of some Asian currencies and continued equity-related demand, the HKD strengthened further and the strong-side Convertibility Undertaking (CU) was triggered four times. Thereafter, Hong Kong Interbank Offered Rates (HIBORs) softened and widened negative HKD-USD interest rate spreads incentivised carry trade activities that weakened the HKD. The weak-side CU was triggered twelve times between late June and mid-August.

While HIBORs generally track their US dollar (USD) counterparts under the Linked Exchange Rate System, shorter-tenor rates are also influenced by local supply of and demand for HKD funding. Short-term HIBORs declined in May as liquidity condition eased, and picked up between late June and end-August with the reduction of the Aggregate Balance. The HKMA has continued to closely engage with banks, reminding them not to be concerned about the perceived "stigma effect" of tapping into its liquidity facilities. Box 3 studies the usage of the Discount Window and the stigma effect in Hong Kong from 2018 to 2024.

Looking ahead, heightened uncertainty over the US trade policy and divergences in the monetary policies of major economies may increase fund flow volatility. Nonetheless, with its ample foreign reserves position and robust financial system, Hong Kong is well positioned to withstand the volatilities in fund flows without compromise to its financial stability.

Amid heightened uncertainty over US trade policy, the Hong Kong equity market mirrored global declines in early April before rebounding. Looking ahead, equity market sentiment is expected to remain highly sensitive to US trade policy developments and their potential impact on inflation and monetary policy. In addition, the outlook for Chinese Mainland economy and global fund flows driven by diversifications will be important drivers for the Hong Kong equity market.

The issuance of HKD debt securities grew steadily in the first half of 2025, partly supported by lower issuing costs. Meanwhile, the issuance of offshore Renminbi (CNH) debt securities in Hong Kong slowed down slightly in the first half of 2025, after reaching a peak in 2024. Going forward, investor diversification across asset markets and the moderately loose monetary policy in Chinese Mainland may lend support to CNH debt market development. In addition, the latest expansion of the Southbound Bond Connect investor scope could help increase Hong Kong's attractiveness to bond issuers and global investors.

Residential property market activities have improved amid eased financial conditions, with housing prices showing further signs of stabilisation. In the near term, despite some uncertainties and risks relating to the economic outlook, the Government's ongoing policies to attract businesses and talents should continue to stimulate housing demand. On the other hand, the commercial real estate (CRE) market remained under pressure, with prices and rentals both exhibiting continuous adjustments amid high vacancy rates.

The pre-tax operating profits of retail banks grew by 13.4% year on year in the first half of 2025, boosted by higher incomes from foreign exchange and derivatives operations as well as fees and commissions. Total loans and advances of all authorized institution (AIs) also reverted to positive growth of 2.5% in the first half of 2025, and total deposits continued to increase. While the classified loan ratio continued to face upward pressure during the first half of 2025, the overall asset quality of the banking sector was manageable and provisions set aside by banks remained sufficient.

Overall, the Hong Kong banking sector continued to be liquid and well capitalised. The average Liquidity Coverage Ratio of category 1 institutions was 172.8% in the second quarter of 2025, well above the statutory minimum requirement of 100%. The total capital ratio of locally incorporated AIs stood at 24.4% at the end of June 2025, well above the international minimum requirement of 8%.

From a medium-term perspective, the growing digitalisation of the financial industry has made financial institutions more dependent on third-party information communication and technology (ICT) providers, potentially exposing them to higher systemic operational risks, as service disruptions of major third-party providers could affect the operations for a large number of financial institutions. Box 4 examines the extent of ICT third-party dependency in the financial industry in the Asia Pacific region, and discusses the potential financial stability implications.

Looking ahead, several downside risk factors will continue to pose challenges to the Hong Kong banking sector, including uncertainties over global trade tensions, potential risks arising from fund flow volatility, and the subdued performance of some local economic sectors. Banks should remain vigilant in assessing the impacts of these risk factors on the asset quality of their loan portfolios.

The Half-yearly Report on Monetary and Financial Stability is prepared by the staff of the Research Department of the Hong Kong Monetary Authority

2. Global setting and outlook

2.1 External environment

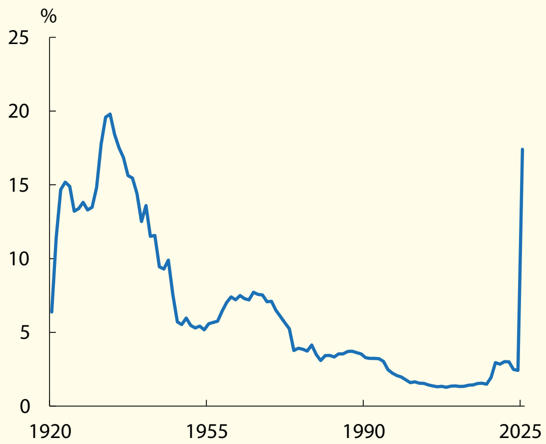
In the period, the global economic environment experienced some turbulence due to heightened uncertainty over US trade policy. On 2 April, the announcement of reciprocal tariffs by the US government triggered market jitters, with investors fearing that heightened protectionism would hinder global growth and exacerbate US inflation, while increased policy uncertainty would restrain investment activities. As a result of the reciprocal tariffs and various sectoral tariffs, the US average effective tariff rate is estimated to rise to about 17% (Chart 2.1). However, global financial markets have continued to function smoothly since the announcement, without significant signs of liquidity stress. The US economy has also continued to exhibit resilience, despite signs of softening consumer spending.

Meanwhile, fiscal sustainability concerns in the US have become more pronounced. The US Congressional Budget Office estimated that the passage of the "One Big Beautiful Bill Act" by the US Congress in July will increase the nation's primary deficit by US$3.4 trillion over the next decade. This development, coupled with Moody's decision to downgrade the US sovereign rating in May and concerns over tariff-driven inflation, led to the 30-year US Treasury yield rising to above 5% in May, and staying close to this level until early September.

The potential for tariffs to drive inflation has prompted the Fed to adopt a cautious approach to rate cuts, with the policy rate remaining unchanged until a 25-basis-point cut in September. By contrast, the Bank of Japan may consider increasing its policy rate in the future. Such divergences in monetary policy could exacerbate the volatility of fund flows. Meanwhile, heightened uncertainty on one hand alongside, buoyant global markets on the other, could result in the mispricing of risk, leading to renewed market volatility.

Apart from these macroeconomic risks, cyber risks have become a growing concern for financial stability. The increasing frequency and severity of cyber incidents affecting financial institutions have the potential to erode clients' confidence and trigger abrupt withdrawals of funding. Box 1 analyses the liquidity risks of investment funds as a result of cyber incidents.

Chart 2.1
US average effective tariff rate

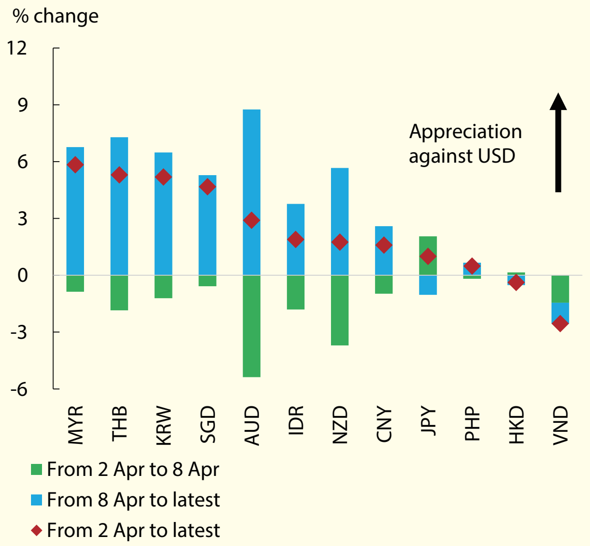


Note: The estimated average tariff rate is based on the tariff implemented as of 4 September 2025 pre-import-substitution. The actual tariff rate may be lower as a result of import substitution.

Source: Yale Budget Lab.

Heightened policy uncertainty and trade tensions have continued to present significant headwinds for Asia-Pacific (APAC) economies. While Gross Domestic Product (GDP) growth in the region generally remained resilient in the first half of 2025, signs of strain have emerged in more externally-exposed segments of these economies. For example, high frequency indicators of export orders and investments point to US tariffs and uncertainty weighing on economic activity. Box 2 examines the most recent trends and developments relating to greenfield foreign direct investment (FDI) into the region and discusses their policy implications. Regional financial and currency markets have also fluctuated in response to the changing US tariff announcements, although trading has continued to be orderly overall. Notably, some regional currencies have experienced visible appreciation pressures in recent months after the April tariff announcements, due to a weakened US dollar (USD) and foreign exchange hedging activities (Chart 2.2), which have exacerbated the impact of tariffs on local exporters. Against this backdrop, and amid moderating inflationary pressures, several central banks in the region have cut their policy rates, with some citing global trade tensions as a key downside risk.

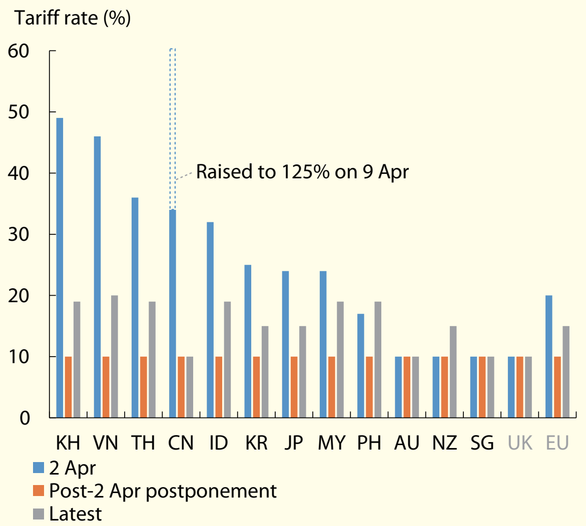
Chart 2.2
Asia Pacific: Exchange rate movements against the USD since 2 April



Note: The latest observation is 25 August 2025.
Sources: Bloomberg and HKMA staff calculation.

The imposition of widespread and economy-specific US tariffs in early August could further undermine the region's growth momentum and impact Asia's integrated and competitive supply chain networks. Although several Asian economies have reached trade deals with the US, their tariff rates remain elevated compared to other major economies and the 10% flat rate applied during the postponement period (Chart 2.3)[1]. Furthermore, there is still considerable uncertainty surrounding the finality of these tariffs, and their potential spillover effects on the broader region. In particular, the emphasis on local value-added content in recent trade deals may lead to further shifts in supply chains down the road, for example shifts that concentrate production within individual economies or closer to target markets. This could reduce the economic benefits and efficiency of the region's integrated supply chains.

Chart 2.3
Asia Pacific: US reciprocal tariffs announced on or imposed since 2 April



Notes:
1. The latest data is based on information as of 26 August 2025.
2. The rates shown do not take into account the 40% trans-shipment tariff which applies across economies, and exemptions and tariffs on certain products.
3. Non-Asian economies are indicated in grey.
4. 'KH' refers to Cambodia.

Sources: Bloomberg and The White House.

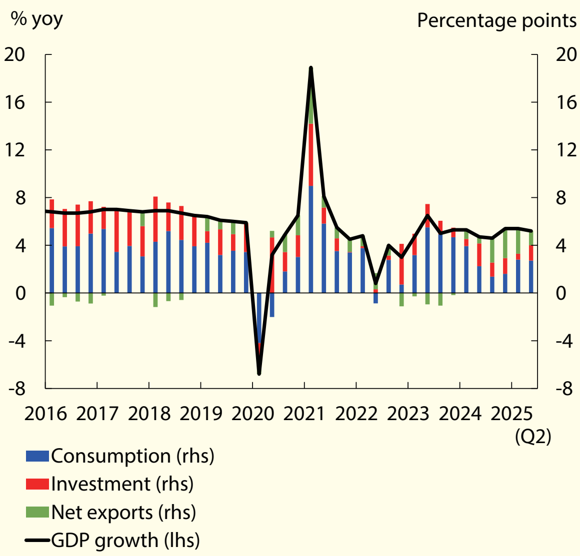
[1] So far, the US has only reached trade deals with Chinese Mainland, the European Union, Indonesia, Japan, Pakistan, the Philippines, South Korea, the United Kingdom and Vietnam.

2.2 Chinese Mainland

Economic performance and policy responses

Despite a challenging external environment, the Mainland economy remained resilient and grew by 5.3% year on year in the first half of 2025, putting it on track to achieve this year's official growth target of around 5% (Chart 2.4). Domestic demand expanded further as the authorities strengthened fiscal and monetary policy support, and prioritised consumption, especially of services.[2] While the China-US tariffs experienced significant fluctuations, Mainland merchandise export growth was more robust than expected, in part due to some front-loading of orders and efforts to diversify markets.[3]

Chart 2.4
Chinese Mainland: Contribution to GDP growth by demand component



Sources: National Bureau of Statistics of China (NBS), CEIC Data (CEIC) and HKMA staff estimates.

In the second half of 2025, the Mainland economy is anticipated to grow further due to continued policy support[4]. This near-term economic outlook is subject to a number of uncertainties and risks, which include additional US tariffs and their repercussions on global trade[5], as well as renewed softness in the local housing market. The latest market forecasts for Mainland economic growth for 2025 range between 4.5% and 5.0%.

Headline Consumer Price Index (CPI) inflation remained subdued in the first eight months of 2025, averaging –0.1% year on year, brought down in part by lower food and energy prices. Excluding food and energy, core CPI inflation edged up recently, reflecting rises in prices of services. Meanwhile, the headline unemployment rate inched up to 5.3% in August, with the rates for the 16–24 and 25–29 age groups climbing to 18.9% and 7.2% respectively due to the traditional graduation season.

Asset and credit markets

The Mainland housing market exhibited renewed weakness in the second quarter of 2025, following signs of stabilisation in the preceding two quarters. Housing prices in first-tier cities reverted to sequential declines in the second quarter, while those in second- and third-tier cities softened further (Chart 2.5). In August, the year-on-year decreases in residential floor space sold and real estate investment widened somewhat, while growth in land sales revenue softened again (Chart 2.6).

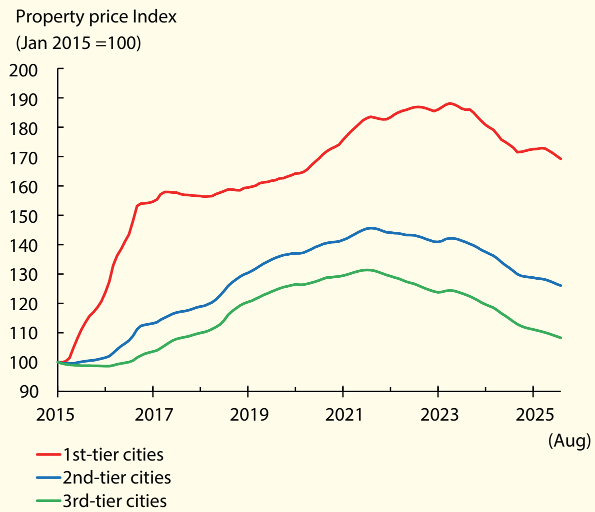
2 Relevant initiatives included, among other things, (i) an enlarged consumption trade-in programme, (ii) cuts in the required reserve ratio and policy rates in May, (iii) structural relending to support services consumption and elderly care, (iv) childcare subsidies by some local governments and (v) visa rule relaxation, visa-free transit, and tax refunds for purchases of overseas travellers.

3 Compared to a year ago, exports to the US have plummeted in the face of higher US tariffs, while the growth of exports to the ASEAN and European Union economies have remained largely solid.

4 These policies include a consumption trade-in programme, a nation-wide childcare subsidy, phased implementation of free preschool education, new measures to expand consumption services, and infrastructure construction such as the world's largest hydropower dam on the Yarlung Zangbo river. The authorities also vowed to tackle "involution-style" competition in certain sectors.

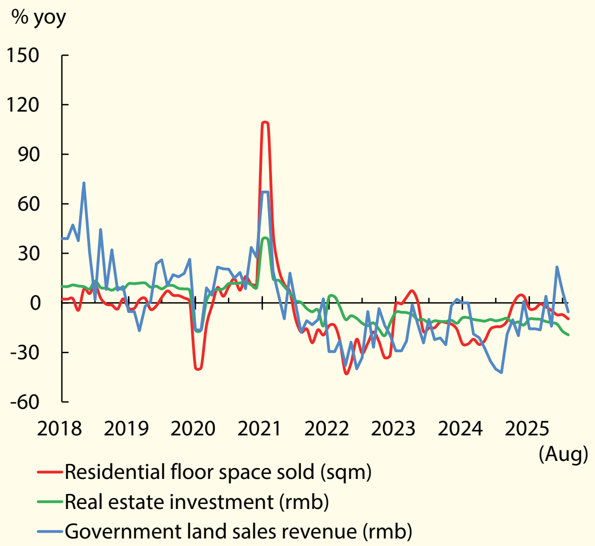
5 Indeed, while Chinese Mainland fared well under Trump's first presidency by diversifying its export destinations, increased protectionism elsewhere, and higher US tariffs facing connector economies in relation to trans-shipments have raised concerns over the trade outlook.

Chart 2.5
Chinese Mainland: Residential property prices by tier of cities



Sources: CEIC and HKMA staff estimates.

Chart 2.6
Chinese Mainland: Property market activities



Sources: CEIC and HKMA staff estimates.

In recent months, the authorities have continued to step up efforts to stabilise the property market by optimising relevant policies.[6] Policymakers have reaffirmed that urbanisation is transiting from a phase of rapid growth to one of stable development, and urban development is therefore transitioning from large-scale expansion efforts to improvements in quality and efficiency. Therefore, the implementation of the "new model" of property development should be accelerated, with urban renewal advancing steadily. In the near term, the housing market outlook will hinge on the Mainland's overall economic prospects and property market policy response.

Overall risk in the Mainland banking sector remained under control in the first half of 2025. Non-performing loan (NPL) ratios hovered at low levels (Table 2.A). The provision coverage ratio of large Mainland banks (249.2% in June) continued to stay well above the regulatory minimum. Amid a bond market boom, the People's Bank of China (PBoC) cautioned in early July that smaller banks with more aggressive bond investments should remain alert to interest rate and credit risks.

Table 2.A
Chinese Mainland: Non-performing loan (NPL) ratio by bank type

NPL ratio by bank type (%)	Jun 2024	Dec 2024	Jun 2025
State-owned commercial banks	1.24	1.23	1.21
Joint-stock commercial banks	1.25	1.22	1.22
City commercial banks	1.77	1.76	1.76
Rural commercial banks	3.14	2.80	2.77

Source: CEIC.

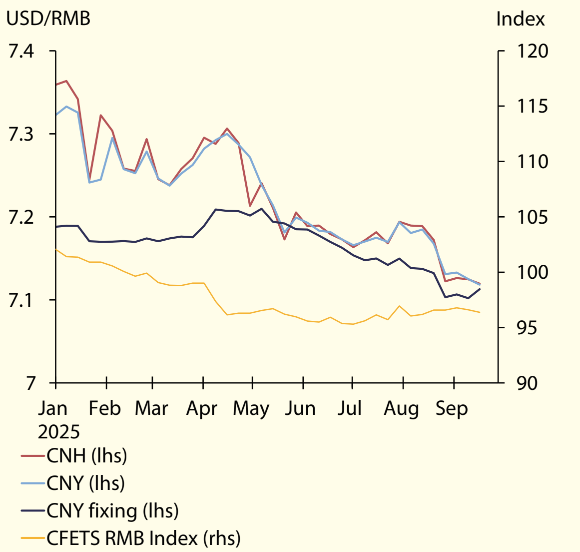
Exchange rate and fund flow indicators

The official fixing and market Renminbi (RMB) exchange rates generally strengthened against the US dollar (USD) between April and August (Chart 2.7), partly driven by a weaker USD. Around the same time, the RMB weakened against other currencies in general. The PBoC again vowed to keep the RMB exchange rate basically stable and guard against the risk of exchange rate overshooting. The central bank also introduced a series of new measures to

[6] Some specific measures have included (i) lowering financing costs, (ii) introducing new financing models, (iii) increasing local government special bond issuance to support idle land buyback and affordable housing, (iv) ensuring high-quality housing supplies, (v) allocating a special central budget investment of RMB80 billion for urban renewal and (vi) encouraging more rental housing supply. Beijing, Shanghai and Shenzhen also relaxed their home purchase restrictions recently.

enhance RMB internationalisation.[7] In terms of cross-border fund flows, alongside improved equity market sentiment, the onshore Mainland bond market reverted to net outflows in July after registering substantial net inflows in the first six months of 2025 (Table 2.B). Meanwhile, the outstanding foreign holdings of Mainland bonds declined recently.

Chart 2.7
Chinese Mainland: Onshore and offshore Renminbi exchange rates against the USD and the CFETS RMB Index



Note: "CFETS" denotes China Foreign Exchange Trade System. "CNY" and "CNH" refer to onshore and offshore Renminbi exchange rates respectively.

Sources: Bloomberg, CEIC and HKMA staff estimates.

Table 2.B
Chinese Mainland: Cross-border bond flow indicators

(RMB bn)	2024	H1 2025	Mar 2025	Apr 2025	May 2025	Jun 2025	Jul 2025
Northbound Bond Connect	492	296	81	109	–3	1	–53
CIBM Direct and QFI	1135	853	234	193	140	68	–43
Change in foreign holdings in the interbank market	492	71	142	95	–96	–116	–304

Note: Bond flows are measured by net buying flows for the Northbound Bond Connect and the China Interbank Bond Market Direct Scheme (CIBM Direct) and Qualified Foreign Investor Scheme (QFI).

Sources: Wind, CFETS and HKMA staff estimates.

7 Recent RMB internationalisation initiatives include (i) an announcement by the PBoC at the annual Lujiazui Forum that it will open an international operation centre to promote digital RMB and serve digital financial innovation, and (ii) the revision by the Shanghai Futures Exchange of its rules to allow international investors to use foreign currencies as collateral for RMB-denominated commodity trades, effective from 8 August.

Box 1
Assessing cyber risks for financial stability: Evidence from investment funds

Introduction[8]

As the global financial system becomes increasingly digitalised and interconnected, a sharp rise in the frequency and severity of cyber incidents[9] affecting financial institutions has raised concerns about the stability of the financial system (International Monetary Fund (IMF), 2024). A particular concern is that cyber incidents may erode clients' confidence and trigger abrupt withdrawals of funding (known as "cyber runs"), thereby increasing liquidity risk for financial institutions affected by these incidents.

Open-ended investment funds are particularly susceptible to "cyber runs", as investors can redeem their investments at short notice if they lose faith in the fund manager's ability to manage cyber risks. However, the extent to which investment funds are subject to fund outflows due to such incidents has not been studied empirically, possibly due to the lack of comprehensive data on cyber incidents. This box sheds light on this issue through an empirical examination of the impacts of cyber incidents on fund outflows of investment funds, and considers whether enhanced cybersecurity preparedness could mitigate the associated liquidity risks.

Data on cyber incidents and investment funds

1) Cyber incidents

There is no single comprehensive dataset on cyber incidents, so we compiled a historical record of cyber incidents from various sources. First, we aggregated data from four databases commonly used in academic studies: (a) the Center for International & Security Studies at Maryland, (b) the European Repository of Cyber Incidents, (c) the Board Cybersecurity, and (d) the Center for Strategic and International Studies. Since these databases are not exhaustive, we also conducted a manual search for cyber incidents in news articles and regulatory filings.[10] After combining all these data sources, we obtained a sample of 72 cyber incidents that occurred at the fund manager level between 2013 and 2024. Our sample included 36 major fund managers, who collectively managed an estimated 50% of all open-ended equity fund assets globally in 2024.[11]

2) Fund managers and their investment funds

Data on the fund managers was sourced from S&P Capital IQ. Their cybersecurity preparedness was proxied by taking the weighted average of their scores on cybersecurity measures and IT infrastructure, as evaluated by the database, with a higher score indicating greater cybersecurity preparedness. For their corresponding investment funds, we gathered information from Morningstar Direct.[12] Our sample consisted of 3,910 open-ended funds that passively track 740 distinct stock indices, with total net assets estimated at approximately US$1.2 trillion in 2024.[13]

8 For full details, see Leung et al. (2025): "Assessing cyber risks for financial stability: Evidence from investment funds", *HKMA Research Memorandum*, forthcoming.

9 Following IMF (2024), "cyber incidents" here refers to events that adversely affect the cybersecurity of an information system or the information the system processes, stores, or transmits.

10 News articles were from Bloomberg, Financial Times, Reuters, The Wall Street Journal, CNBC, and Yahoo Finance. Regulatory filings included Form 8-K of the US Securities and Exchange Commission and notices to local US authorities on cyber incidents.

11 The total net assets of open-ended equity funds of these fund managers were estimated at US$17.9 trillion in 2024, and those of all open-ended equity funds globally at US$35.7 trillion (Investment Company Institute, 2025).

12 Morningstar Direct's data providers do not guarantee the accuracy, completeness or timeliness of any information provided by them, and shall have no liability for their use.

13 Investment funds may have diverse characteristics that may simultaneously affect their fund flows. This study therefore limits the sample to index-tracking funds to minimise the impact of omitted variables.

Empirical analysis

The empirical analysis consisted of two parts. In the first part we examined the magnitude of "cyber runs" on investment funds, and assessed the effectiveness of cybersecurity preparedness in mitigating their impacts. In the second part we investigated whether enhanced cybersecurity preparedness could reduce the chance of a cyber incident occurring.

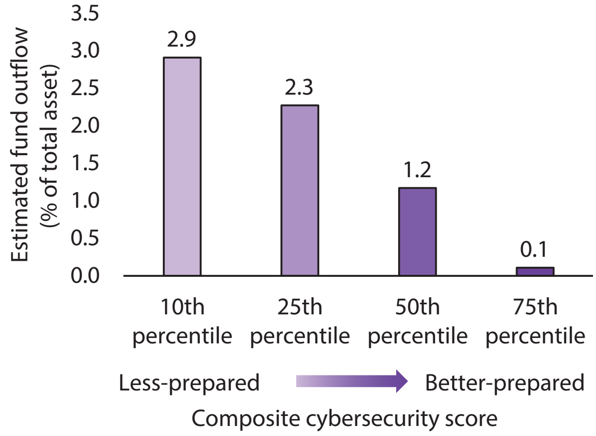
1) *The magnitude of "cyber runs" and the mitigating impact of cybersecurity preparedness*

To estimate the magnitude of "cyber runs" on investment funds and the mitigating impact of cybersecurity preparedness, we conducted a regression analysis using a fixed effects model.

The results revealed that investment funds suffer from "cyber runs" if a cyber incident materially disrupts the investment operations of their fund managers.[14] The severity of these runs largely depends on the cybersecurity preparedness of the fund managers (Chart B1.1). Specifically, less-prepared fund managers (i.e., those with composite cybersecurity scores in the 10th percentile of fund managers in our sample) were estimated to witness weekly fund outflows of 2.9% of their net assets following a cyber incident. This estimated outflow is economically significant, as it is much larger than their average weekly fund inflow of 0.2% over the past decade. By contrast, better-prepared fund managers (i.e., those with composite cybersecurity scores in the 50th percentile) were estimated to face a much smaller outflow of 1.2%.

These findings suggest that enhanced cybersecurity preparedness can reinforce investor confidence in fund managers. This in turn can reduce outflows and limit liquidity risks for open-ended funds affected by cyber incidents.

Chart B1.1
Estimated impacts of a cyber incident on fund outflows by cybersecurity preparedness



Note: Each bar represents the estimated fund outflow of investment funds whose composite cybersecurity score ranks at the specified percentile across the funds in our sample. A higher score indicates greater cybersecurity preparedness, and vice versa.

Source: HKMA staff estimates.

2) *The effect of cybersecurity preparedness on the chance of a cyber incident occurring*

To further examine whether greater cybersecurity preparedness could reduce the chance of fund managers experiencing a cyber incident in the coming year[15], we conducted a regression analysis using a fixed effects probit model.

Using less-prepared fund managers (i.e., those with composite cybersecurity scores in the 10th percentile) as the baseline, the findings indicate that when the composite cybersecurity score increases, the probability of a cyber incident occurring is estimated to decrease substantially

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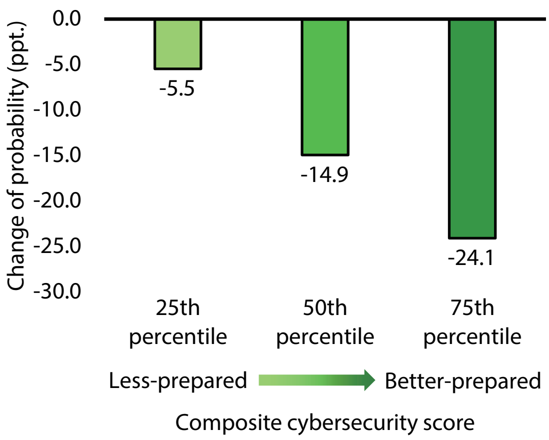
[14] Three quarters of the cyber incidents in our sample did not cause material disruptions to the investment operations of fund managers, but rather resulted in consequences such as information leakage and disruptions to non-investment operations. Our analysis indicated that these types of incidents do not significantly lead to "cyber runs" on their investment funds.

[15] In our sample period, the average probability that a fund manager would experience at least one cyber incident in a year was about 14%. For some fund managers with higher cyber risks, the probability could be as high as 50%, which translates to experiencing a cyber incident once every two years.

(Chart B1.2). Specifically, for better-prepared fund managers with a cybersecurity score in the 50^{th} percentile, this probability is estimated to decrease by 14.9 percentage points (ppts) from the baseline. These findings show that enhanced cybersecurity preparedness can significantly reduce the probability of a cyber incident occurring, and hence enhance the liquidity resilience of the investment funds.

Chart B1.2
Estimated reduction in the probability of a cyber incident occurring compared to that of less-prepared fund managers



Note: Each bar represents the estimated decrease in the probability of a cyber incident occurring to fund managers whose composite cybersecurity score ranks at the specified percentile across fund managers in our sample, compared to the less-prepared fund managers with a score in the 10th percentile. A higher score indicates greater cybersecurity preparedness, and vice versa.

Source: HKMA staff estimates.

Conclusion and implications

In conclusion, our empirical analysis sheds light on the magnitude of "cyber runs" on investment funds. The results underscore the importance of cybersecurity preparedness in mitigating fund outflows and reducing the chance of cyber incidents occurring.

These findings carry three key policy implications for financial stability. First, it is crucial to encourage financial institutions to enhance their cybersecurity in order to bolster their resilience to cyber risks and the potential consequences. Second, closer monitoring of cyber-related liquidity risk, for example by conducting liquidity tests under cyber-related stress scenarios, is warranted. Finally, the fragmented reporting of cyber incidents across data sources can pose challenges for assessing the financial stability impacts of cyber risks, suggesting a need for international action to strengthen and harmonise the reporting of cyber incidents.

References

IMF (2024). Chapter 3: Cyber Risk: A Growing Concern for Macrofinancial Stability. Global Financial Stability Report.

Investment Company Institute (2025). Worldwide Regulated Open-End Fund Assets and Flows First Quarter 2025.

Box 2
Recent developments of foreign direct investment into the region: an initial analysis and policy implications

Introduction

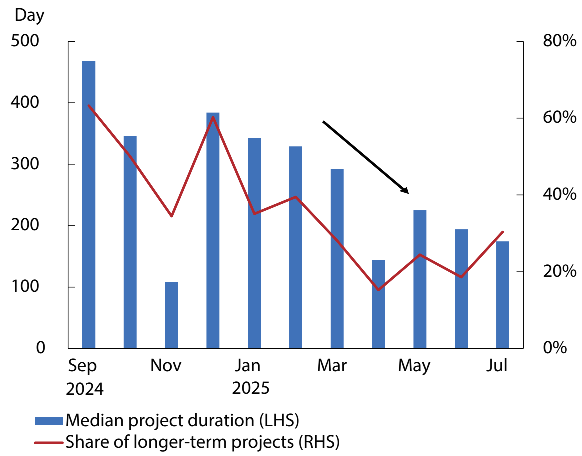
The Asia-Pacific (APAC) region is facing heightened economic uncertainties and downside risks due to extensive US tariffs, which have the potential to undermine greenfield FDI into the region.[16] Potential disruptions to FDI could in turn impact the region's integrated and competitive supply chain networks, as well as hinder its ability to achieve green transformation and sustainable growth.

This box examines recent trends and developments relating to FDI into the region and discusses their policy implications. Since official FDI data is typically released infrequently and belatedly, we have leveraged Moody's Orbis dataset of cross-border FDI projects, sourced from global announcements. This structured dataset contains descriptions of FDI projects along with information on their duration, sectors and motives. This data has enabled us to conduct a more detailed FDI analysis, including identifying FDI projects relating to green activities through textual analysis.[17]

Recent FDI developments

The granular project-level FDI data indicated that high uncertainty surrounding US tariffs had weighed on decisions about FDI into the region[18] in recent months, especially for longer-term projects. As illustrated in Chart B2.1, both the median duration of FDI projects in the region and the percentage of longer-term FDI projects (i.e. of one year or more) have generally declined since late 2024.

Chart B2.1
Inward FDI projects in the region by duration



Note: Longer-term FDI projects are defined as projects with an investment duration of at least one year. Projects with an investment duration of less than seven days are excluded to mitigate potential bias.

Sources: Moody's Orbis Crossborder Investment and HKMA staff calculation.

When analysed by sector, investment source and motive, our FDI data also gave rise to a number of interesting observations for the period between January and July 2025.

- First, the number of FDI projects coming into the region generally held up in the manufacturing sectors, according to an annualised year-on-year comparison. Declines in FDI projects from the US, the European Union and the rest of the world were offset by a rise in intra-regional FDI projects (Chart B2.2). This points to a possible further shift in global supply chains.

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16 In what follows, we refer to greenfield FDI simply as FDI.

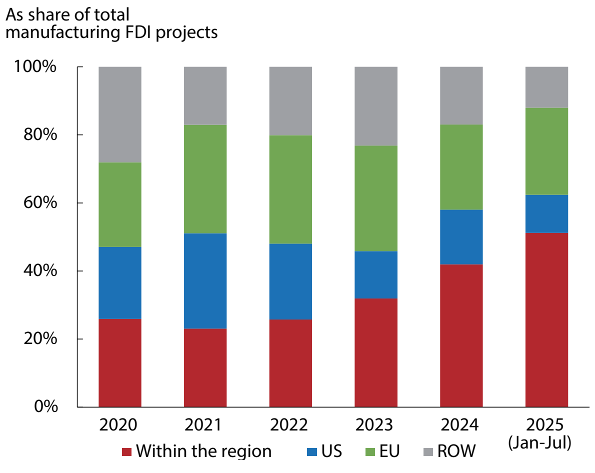
17 For more details, see Li et al. (2025) "The impact of climate-related factors on the greenfield foreign direct investment", *HKMA Research Memorandum 08/2025*. It should be noted that our analysis here focuses on the number of FDI projects rather than their investment value due to data availability and quality. Future research would benefit from more robust data on FDI values as it becomes available.

18 In our data analysis, the region comprises the following APAC economies: Australia, Chinese Mainland, Hong Kong, Indonesia, Japan, South Korea, Malaysia, New Zealand, the Philippines, Singapore, and Thailand.

- Secondly, the number of FDI projects coming into the region's services sector generally declined; however, there was a notable increase in the share of FDI projects with market-seeking motives. This partly reflects investors' growing interest in capitalising on domestic market potential in the services sector in the face of higher tariffs on goods.

- Thirdly, our analysis suggests that the number of green-related FDI projects coming into the region edged down, although these represented a relatively small share of the total number of FDI projects. That said, the share of green-related FDI projects sourced from the region itself increased notably (Chart B2.3). These patterns may have implications for the region's green transition and its sustainable growth in the future.

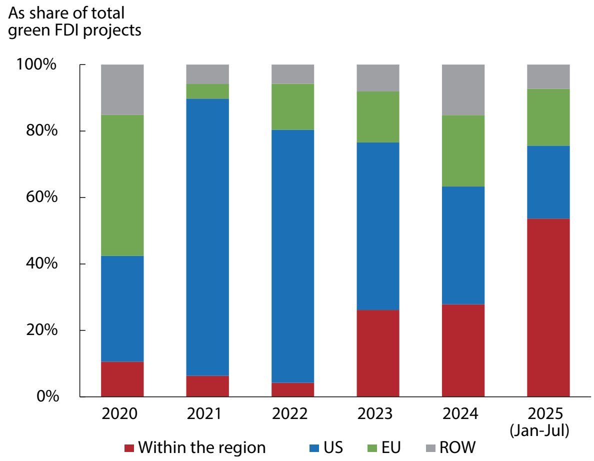
Chart B2.2
Inward FDI in the manufacturing sectors by source



Notes:
1. "Within the region" refers to the set of APAC economies mentioned above; "EU" refers to the European Union; "ROW" denotes the rest of the world.
2. Data shows the share of the number of projects, not their value.

Sources: Moody's Orbis Crossborder Investment and HKMA staff calculations.

Chart B2.3
Inward FDI in green-related sectors by source



Notes:
1. "Within the region" refers to the set of APAC economies mentioned above; "EU" refers to the European Union; "ROW" denotes the rest of the world.
2. Data shows the share of the number of projects, not their value.

Sources: Moody's Orbis Crossborder Investment and HKMA staff calculations.

Policy implications

Given the uncertain global trade outlook, the region's economies should continue to prioritise regional integration while also strengthening their ties with a diverse array of global partners. As evidenced by the growing share of intra-regional FDI in the manufacturing sectors (Chart B2.2), the transfer of knowledge, skills and technology through regional investment linkages has been crucial in boosting the prospects of regional economies.

Furthermore, leveraging rising regional income levels, regional economies should intensify their efforts to stimulate domestic consumption and the services sector. Leveraging the inward FDI into the regional services sector, the region can invest in digital infrastructure, integrate artificial intelligence (A.I.), and reduce services trade barriers so as to boost the services sector and the trade in modern services.

FDI flows also represent a significant driver for green transition and for facilitating related technology spillovers. Our empirical research[19] merged granular FDI data with a public database on climate policy. We found that climate policy promotion is crucial for green transition, since the larger the number of climate policies in place (particularly binding policies that involve fiscal consequences and strict regulations), the greater the increase in both inward and outward green-related FDI. Our study also suggests that green bond issuance can act as a catalyst incentivising outward green-related FDI, thereby promoting green spillover to other economies.

Concluding remarks

In sum, our analysis indicates that FDI coming into the region has been impacted by the uncertain trade environment, as shown by, for example, the shortened duration of FDI projects being undertaken. That said, FDI remains an important instrument for advancing regional integration, the domestic services sector, and green transition within the region, where policies aimed at reducing services sector barriers and promoting climate initiatives should be useful.

[19] For more details, see Li et al. (2025).

3. Domestic economy

3.1 Real activities

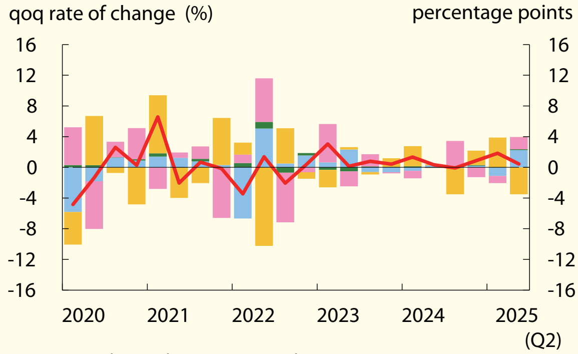
The Hong Kong economy registered solid growth in the first half of 2025 despite intensified global trade tensions, with real GDP increasing by 3.0% and 3.1% year on year in the first and second quarters respectively (Table 3.A). On a seasonally adjusted quarter-to-quarter basis, real GDP grew moderately by 0.4% in the second quarter after registering significant growth of 1.8% in the preceding quarter (Chart 3.1).

Table 3.A
Real GDP growth

		Year-on-year growth rate (%)	Seasonally adjusted quarter-on-quarter growth rate (%)
2024	Q1	+2.8	+1.3
	Q2	+3.0	+0.3
	Q3	+1.9	–0.1
	Q4	+2.5	+0.9
2025	Q1	+3.0	+1.8
	Q2	+3.1	+0.4

Source: Census and Statistics Department (C&SD).

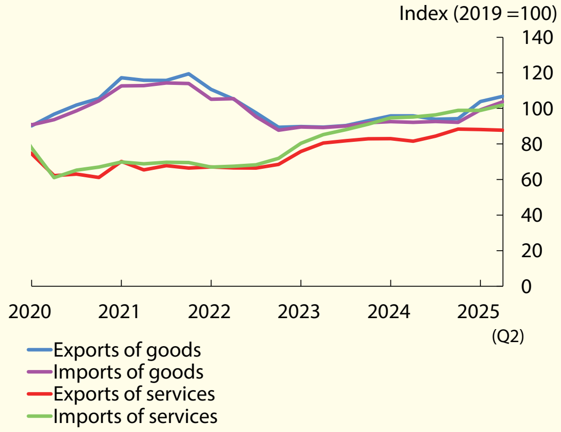
Chart 3.1
Real GDP growth and contribution by major expenditure component



Note: Growth rates are seasonally adjusted.
Sources: C&SD and HKMA staff estimates.

The economic growth during the review period was supported by strong export performance and improved domestic demand. Externally, exports of goods were underpinned by importers' front-loading orders ahead of the expected tariff hikes (Chart 3.2). Exports of services also benefited from the steady growth in inbound tourism and the surge in cross-border financial activities in the face of a vibrant stock market, while growth in imports of services moderated alongside slower growth in outbound tourism.[20] Domestically, investment spending increased in the first half of 2025, due partly to an improvement in property market transactions. Meanwhile, private consumption showed tentative signs of stabilisation, with year-on-year growth turning positive in the second quarter of 2025 after four consecutive quarters of contraction.

Chart 3.2
Export and import volume



Note: The data are seasonally adjusted.
Source: C&SD.

[20] Visitor arrivals into Hong Kong reached about 33.2 million persons in the first eight months of 2025, equivalent to 76% of the level in the same period of 2019. Over the same period, Hong Kong's resident departures reached about 76.9 million persons, exceeding the corresponding pre-pandemic level in 2019 by 20%.

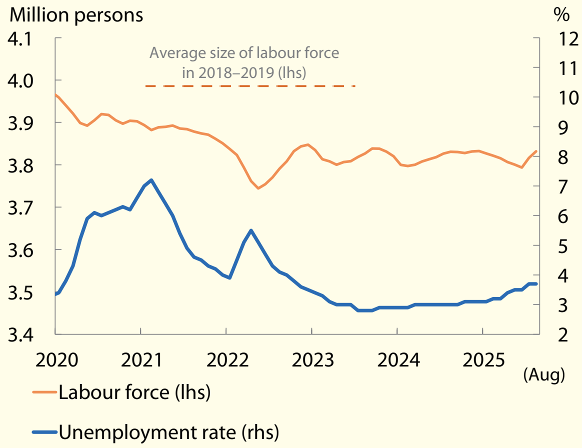
For the remainder of 2025, the Hong Kong economy is expected to grow at a moderate pace. As an international trade centre, Hong Kong is likely to be affected by the widespread imposition of US tariffs, which may lead to a slowdown in merchandise exports growth in the second half of 2025. That said, the steady growth in inbound tourism and a vibrant stock market may continue to provide support to services exports, offsetting the above adverse effects to some extent. Domestically, while heightened trade tensions may weigh on private investment, the multifaceted support measures[21], together with Chinese Mainland's economic stimulus measures, should bolster the resilience of local enterprises. Meanwhile, private consumption may continue to be affected by the ongoing challenges posed by the shift in the consumption patterns of local residents.

Taking into account the latest economic situation, the Government maintained its real GDP growth forecast for 2025 at 2%–3%.[22] This growth outlook is subject to various risks and uncertainties as discussed in the previous chapters, particularly those related to US tariffs and their impact on global economic growth, as well as the pace of the US policy rate cut.

3.2 Labour market conditions

The labour market softened slightly, with the unemployment rate increasing to 3.7% in August 2025 from 3.2% in March 2025. The size of the labour force has returned to a level comparable to the recent peak recorded in December 2024, although it remained below its pre-pandemic level (Chart 3.3). Looking ahead, labour demand is expected to remain largely stable, although certain sectors may face challenges due to heightened trade tensions and changing consumption patterns. Meanwhile, the Government continued to enrich Hong Kong's talent pool via a range of initiatives.[23,24]

Chart 3.3
Labour market conditions



Source: C&SD.

21 In April 2025, the HKMA and the banking sector introduced specific measures to assist small and medium-sized enterprises (SMEs) from various industries in obtaining bank financing and in their upgrade and transformation. The sector-specific support measures included (i) providing flexible extensions to trade facilities (e.g. 90 or 120 days) for the import and export and manufacturing sectors; (ii) offering flexible financial arrangements to alleviate cashflow pressure of customers in the construction sector through a collaborative mechanism; and (iii) introducing financing products that are better suited to the transport sector and offering more flexible repayment arrangements. Banks have also reaffirmed their commitment to actively implementing the "9+5" SME support measures launched in 2024. In September 2025, the Government also announced the extension of the application period for the 80% Guarantee Product under the SME Financing Guarantee Scheme (SFGS), the increase in the amount of total loan guarantee commitment under the SFGS, and the extension of the principal moratorium arrangement.

22 The latest private-sector analysts' consensus forecast on Hong Kong's real GDP growth for 2025 averaged at 2.6%.

23 On 30 May 2025, the Government announced the introduction of a new channel under the General Employment Policy and the Admission Scheme for Mainland Talents and Professionals, allowing individuals from outside Hong Kong to apply for entry into eight skilled trades facing acute manpower shortage.

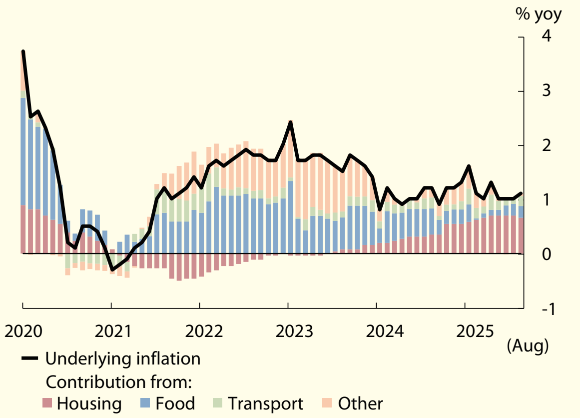
24 More than 510,000 applications under the various talent attraction schemes were received from the end of 2022 to July 2025, of which over 340,000 applications have been approved. Over 220,000 of the successful applicants have already arrived in Hong Kong with their families.

3.3 Inflation

Consumer price inflation remained modest. On a year-on-year basis, the underlying composite consumer price index rose slightly by 1.2% and 1.1% in the first and second quarters of 2025 respectively, and by 1.1% in August 2025 (Chart 3.4). Analysed by component, the increase in housing rentals continued to feed through gradually to the housing component, while price pressures on food and other components remained largely contained.

Looking ahead, overall inflation is anticipated to remain mild, with pressures from domestic costs and external prices staying broadly in check, thus mitigating the upward price pressure from rising housing rentals. The Government projects the underlying and headline inflation rates to be 1.5% and 1.8% respectively in 2025.[25]

Chart 3.4
Underlying consumer price inflation and its drivers



Sources: C&SD and HKMA staff estimates.

[25] The market consensus forecasts for the headline inflation rate for 2025 is 1.6%.

4. Monetary and financial conditions

4.1 Exchange rate and capital flows

The Hong Kong dollar (HKD) firmed in April due to buoyant capital market activities (Chart 4.1) and, in particular, continued net inflows through the Southbound Stock Connect. In early May, amid the sharp appreciation of some Asian currencies and continued equity-related demand, the HKD strengthened further and the strong-side Convertibility Undertaking (CU) was triggered four times, under which the HKMA sold a total of HK$129.4 billion.

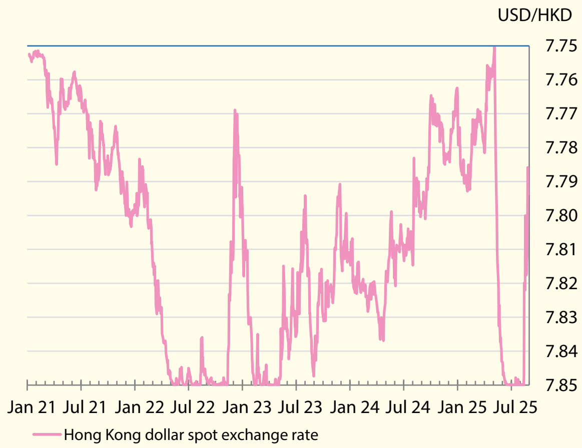
Following the triggering of the strong-side CU, the supply of HKD was relatively abundant. As a result, the Hong Kong Interbank Offered Rates (HIBORs) softened and widened negative HKD-USD interest rate spreads incentivised the sale of HKD for US dollar (USD) for carry trade activities, which pushed the HKD towards the weak side. The weak-side CU was triggered twelve times between late June and mid-August. The HKMA bought a total of HK$119.9 billion. Thereafter, the HKD strengthened in the second half of August.

As a result of the triggering of the CU, the Aggregate Balance of the banking system increased from HK$44.7 billion at the end of February to HK$174.1 billion on 8 May and then came down to HK$54.1 billion at the end of August. Day-to-day interbank operations and settlement activities among banks continued to operate in a smooth and orderly manner (Chart 4.2).

Broadly tracking the movements of the USD, the HKD nominal effective exchange rate index (NEER) declined during the review period (Chart 4.3). Meanwhile, the HKD real effective exchange rate index (REER) generally followed the movement of the NEER.

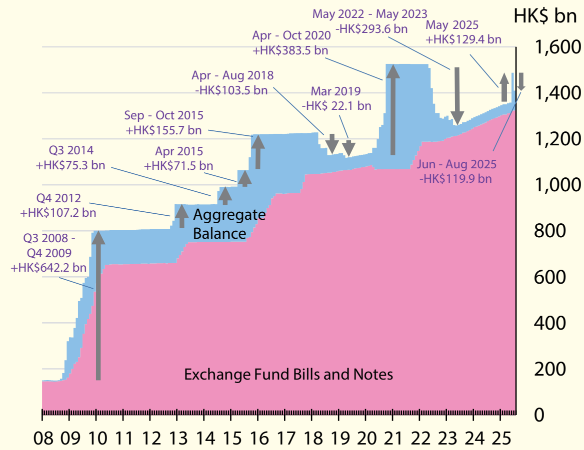
Going forward, heightened uncertainty over US trade policy and divergences in the monetary policies of major economies may increase the volatility of fund flows. However, with its ample foreign reserves position and robust financial system, Hong Kong is well positioned to withstand the volatilities in fund flows without compromise to its financial stability.

Chart 4.1
Hong Kong dollar exchange rate



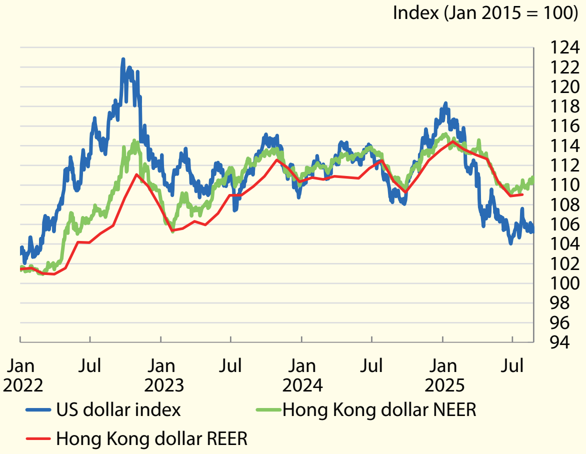
Source: HKMA.

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



Source: HKMA

Chart 4.3
Nominal effective exchange rate index (NEER) and real effective exchange rate index (REER)



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

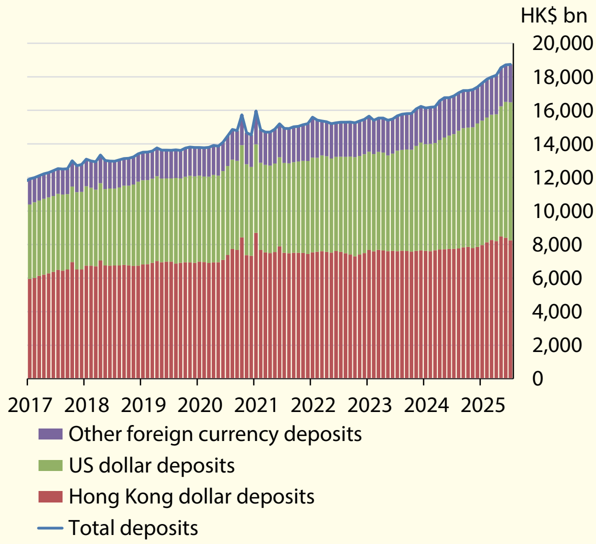
4.2 Monetary environment and interest rates

Hong Kong's monetary environment stayed accommodative during the review period. The HKD Monetary Base remained sizeable and broadly stable, at HK$2,014.0 billion as at the end of August 2025.

In the first seven months of 2025, total deposits with authorized institutions increased by 7.8%. Of this total, HKD deposits and foreign currency deposits increased by 4.9% and 10.2% respectively (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 funding demand as well as business and investment related activities. Therefore, it is more appropriate to observe the longer-term trends.

Overall, Hong Kong's interbank market continued to trade in a smooth and orderly manner during the review period. In accordance with the expectation and the design of the Linked Exchange Rate System, HKD interbank interest rates generally track their USD counterparts[26] while shorter-tenor rates are also influenced by local supply of and demand for HKD funding. In May, short-term HIBORs declined as liquidity conditions eased following the expansion of the Aggregate Balance. Between late June and end-August, with the reduction of the Aggregate Balance following the triggering of the weak-side CU, HIBORs picked up (Chart 4.5).

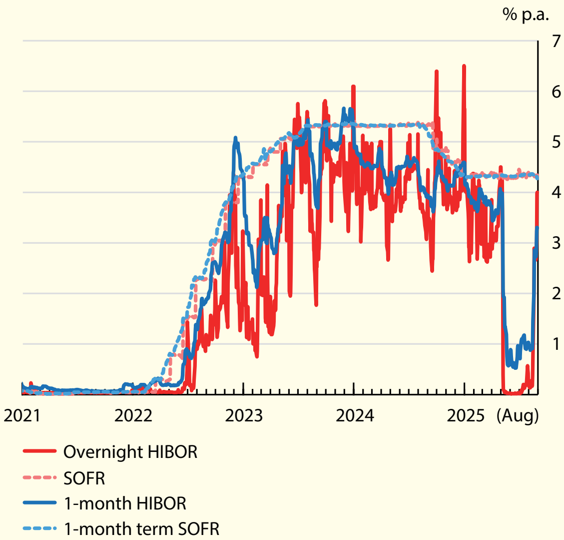
Chart 4.4
Deposits with authorized institutions (AIs) by currency



Source: HKMA.

[26] The USD London Interbank Offered Rate (LIBOR) has been discontinued since 1 July 2023 and replaced by the Secured Overnight Financing Rate (SOFR) as its alternative reference rate.

Chart 4.5
Hong Kong Interbank Offered Rates (HIBORs) and US dollar Secured Overnight Financing Rates (SOFRs)



Sources: Bloomberg and HKMA.

On the retail front, after the US Fed lowered its policy rate in September, many local banks reduced their Best Lending Rates by 12.5 basis points. Meanwhile, the average lending rate for new mortgages decreased from 3.51% in January 2025 to 2.40% in July 2025. Banks will decide when and by how much to adjust their lending and savings rates, taking into account factors such as funding supply and demand in the interbank market, the level of interbank rates and their own funding cost structures.

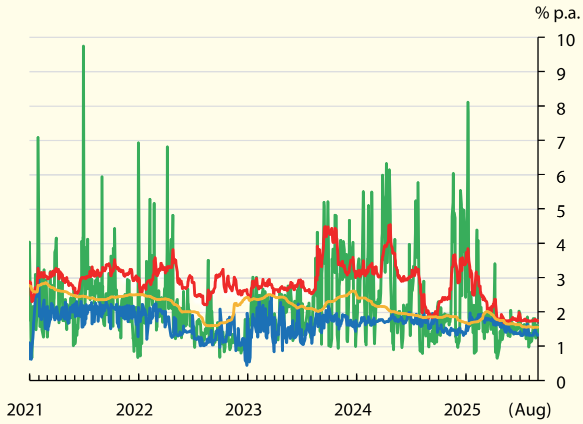
The HKMA continues to closely engage with banks to remind them to properly manage their liquidity, including by maintaining close contact with large clients. Understanding their clients' HKD funding plans and arrangements can help them plan effectively and avoid HKD hoarding. The HKMA has also reminded banks not to be concerned about the perceived "stigma effect" of tapping into its liquidity facilities. Box 3 describes a study of the usage of the HKMA's Discount Window (DW) from 2018 to 2024. The study finds that, not only has DW usage increased in recent times, but that the DW stigma has also decreased during the current period of tight liquidity as compared with the previous period from 2018 to 2020. These trends coincide with the HKMA's efforts to communicate with banks to mitigate the stigma effect and reflect the effectiveness of these communication efforts.

Offshore RMB banking business

The offshore renminbi (CNH) interbank market continued to function normally during the review period.[27] The three-month CNH HIBOR eased to below 2% from April 2025 as demand softened. While the overnight CNH HIBOR saw some fluctuations, it mostly traded below 2% (Chart 4.6). Liquidity conditions in the CNH interbank market remained broadly stable over the review period.

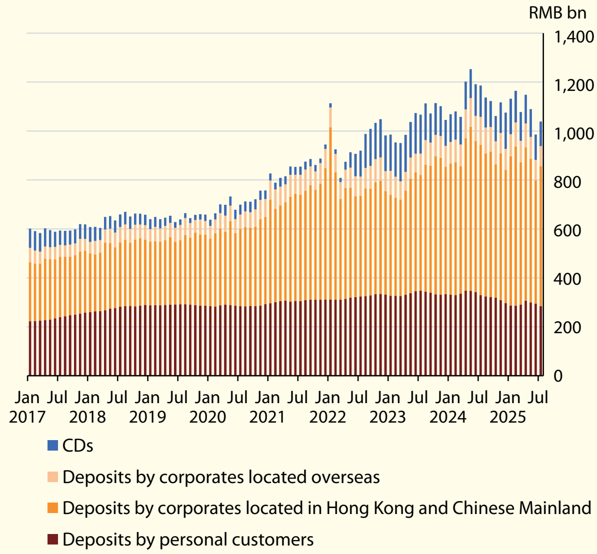
[27] See section 2.2 of Chapter 2 for developments in offshore and onshore renminbi exchange rates.

Chart 4.6
Overnight and 3-month offshore renminbi (CNH) HIBOR fixings



Source: CEIC and Treasury Markets Association.

Chart 4.7
Renminbi customer deposits and certificates of deposit (CDs) in Hong Kong



Source: HKMA.

Hong Kong's CNH liquidity pool declined modestly during the first seven months of 2025. The total outstanding amount of renminbi (RMB) customer deposits and certificates of deposit (CDs) decreased by 3.4% to RMB1,038.8 billion at the end of July 2025 (Chart 4.7 and Table 4.A). Among the total, RMB customer deposits grew by 1.3%, mainly led by corporate customers' deposits. The outstanding amount of RMB CDs saw a decline of 32.4% during the same period.

Table 4.A
Offshore renminbi banking statistics

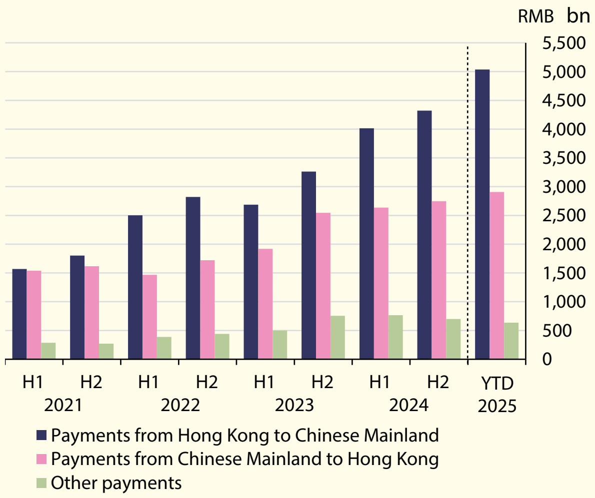
	Dec 2024	Jul 2025
Renminbi deposits & CDs (RMB bn)	1,075.3	1,038.8
Of which:		
Renminbi deposits (RMB bn)	926.6	938.2
Share of renminbi deposits in total deposits (%)	5.7	5.5
Renminbi CDs (RMB bn)	148.7	100.5
Renminbi outstanding loans (RMB bn)	724.0	839.6
Number of participating banks in Hong Kong's renminbi clearing platform	206	208
Amount due to overseas banks (RMB bn)	117.5	115.5
Amount due from overseas banks (RMB bn)	102.8	138.9

	Jan–Jul 2025
Renminbi trade settlement in Hong Kong (RMB bn)	8,579.0
Of which:	
Inward remittances to Hong Kong (RMB bn)	2,906.6
Outward remittances to Chinese Mainland (RMB bn)	5,035.5
Turnover in Hong Kong's RMB real time gross settlement (RTGS) system (Daily average during the period; RMB bn)	2,759.7

Source: HKMA.

As for other renminbi business, the outstanding aggregate amount of RMB loans expanded by 16.0% in the first seven months of 2025. Renminbi trade settlement handled by banks in Hong Kong amounted to RMB8,579.0 billion in the first seven months of 2025 (Chart 4.8), down by 1.3% compared with RMB8,696.2 billion during the same period in 2024. The deep RMB liquidity pool in Hong Kong and the capabilities and extensive networks of Hong Kong banks continued to support large volumes of RMB payments and financing transactions. During the first seven months of 2025, the average daily turnover of the RMB RTGS system stayed high at RMB2,759.7 billion, compared with RMB3,327.1 billion recorded in the same period in 2024.

Chart 4.8
Flows of renminbi trade settlement payments



Source: HKMA.

Moving forward, the continuing development of Hong Kong's CNH ecosystem will further reinforce Hong Kong's role as the leading CNH business hub. On liquidity, the HKMA's new RMB Trade Financing Liquidity Facility, which was launched in February 2025, will continue to enhance the liquidity of Hong Kong's CNH market by providing banks with a stable source of RMB funds to support trade finance services. On products, the continuous efforts to upgrade and expand the family of Connect schemes between the Mainland and Hong Kong[28] will widen the spectrum of RMB products and tools available for asset allocation and risk management, facilitating greater two-way traffic between the two markets. As for financial infrastructure, the HKMA and the PBoC launched Payment Connect on 22 June 2025, which is a linkage of faster payment systems in the Mainland and Hong Kong (i.e. the Mainland's Internet Banking Payment System (IBPS) and Hong Kong's Faster Payment System (FPS)) that supports secure, efficient and convenient real-time cross-boundary payment for residents and institutions in both places. Moreover, CMU OmniClear Limited (CMU OmniClear)[29] and LCH Limited signed a Memorandum of Understanding (MOU) in June 2025, which could facilitate the wider acceptance of CNH bonds as eligible collateral in international markets. With these developments, Hong Kong will continue to play a unique role in supporting the Mainland's capital account opening, as well as the Guangdong-Hong Kong-Macao Greater Bay Area and the Belt and Road initiatives.

[28] The PBoC, the Securities and Futures Commission (SFC) and the HKMA announced plans to further enrich the product types under Swap Connect. For details, see the press release "Joint press release of the PBoC, the SFC and the HKMA on further enriching the product types of Swap Connect to facilitate high-level opening-up of Mainland's financial markets" on 15 May 2025 (https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/05/20250515-7/). In addition, the HKMA officially launched the enhancement arrangements for the offshore RMB bond repurchase (repo) business, to facilitate the participation of Northbound Bond Connect investors in repo business. For details, see the press release "Official Launch of Enhancement Arrangements for the Offshore RMB Bond Repurchase Business announced by HKMA" on 25 August 2025 (https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/08/20250825-5/). Furthermore, the Southbound Bond Connect investor scope was expanded to include securities firms, fund companies, insurance companies and wealth management companies.

[29] CMU OmniClear, established in October 2024 to operate the Central Moneymarkets Unit (CMU) on behalf of the HKMA, is a wholly-owned subsidiary of the Exchange Fund.

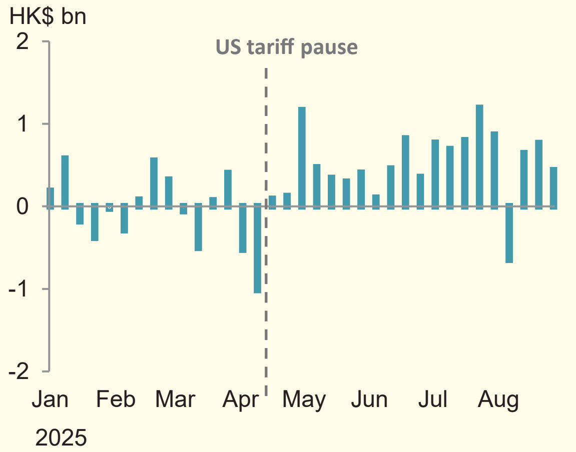
Asset markets

4.3 Equity market

Amid heightened uncertainty over US trade policy, global equity markets exhibited significant volatility during the review period. Following the US announcement of reciprocal tariffs on its trade partners, the MSCI World Index plummeted by 11.3% between 2 April and 8 April, as investors were concerned about the potential inflationary pressures in the US and recessionary impacts on the global economy. However, the index has since rebounded, following the US announcement of suspending the reciprocal tariff to allow time for negotiation.

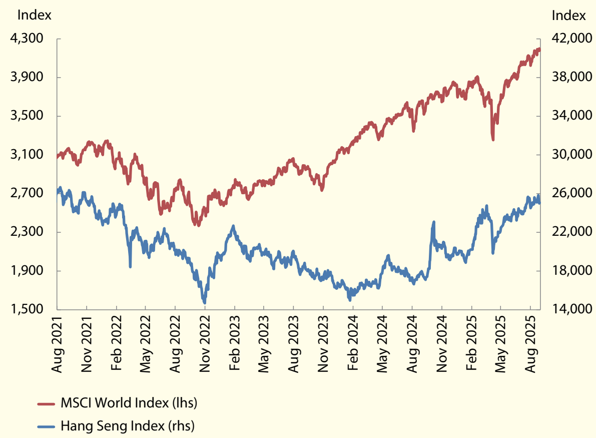
Mirroring the global equity market, the local equity market also declined sharply in early April before rebounding. The recovery in the Hang Seng Index was further supported by significant inflows of foreign investors (Chart 4.9) and an improvement in market sentiment driven by Chinese Mainland's fiscal and monetary stimulus measures. Overall, the MSCI World Index and the Hang Seng Index increased by 9.8% and 9.3% respectively from the end of February 2025 to the end of August 2025 (Chart 4.10).

Chart 4.9
Equity market fund flows into Hong Kong from US and European investment funds



Note: US and European investment funds refer to funds that are domiciled in the US or Europe, as classified by source.
Source: EPFR

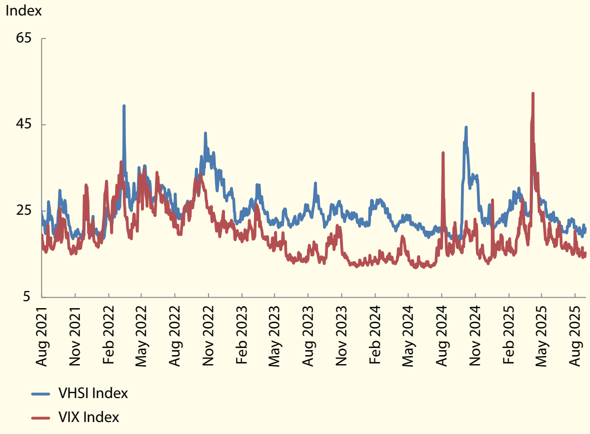
Chart 4.10
The Hang Seng Index and the MSCI World Index



Source: Bloomberg.

Along with the sharp decline in equity markets in early April, equity market volatility in both the S&P 500 Index and the Hang Seng Index escalated in early April, before quickly stabilising (Chart 4.11).

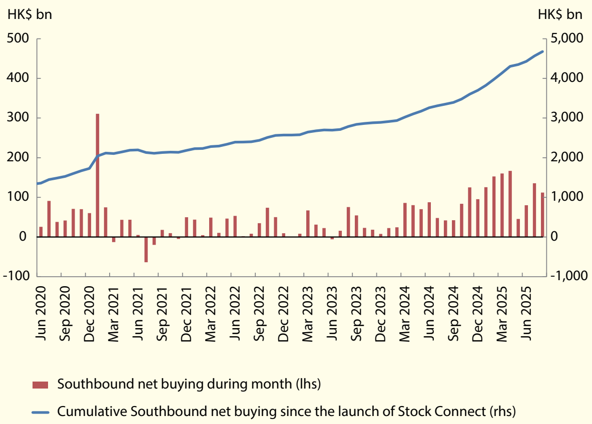
Chart 4.11
Option-implied volatilities of the Hang Seng Index (VHSI Index) and the S&P 500 Index (VIX Index)



Source: Bloomberg.

There were steady net inflows into the local equity market through the Southbound Stock Connect, with net buying by Chinese Mainland investors amounting to HK$700.6 billion from the end of February 2025 to the end of August 2025 (Chart 4.12). The cumulative Southbound net buying amount since the launch of Stock Connect increased by 17.6% during the review period, and stood at HK$4,676.7 billion at the end of August 2025.

Chart 4.12
Net buying through Southbound Stock Connect over time

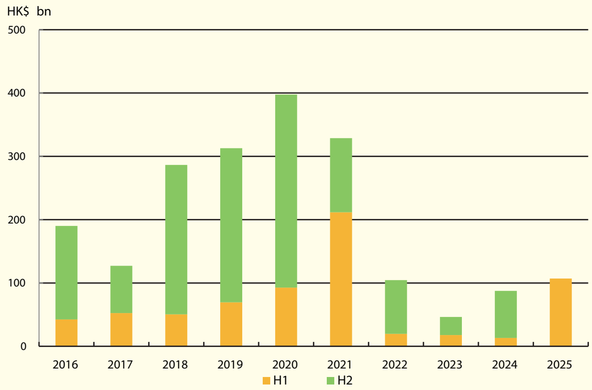


Note: Southbound net buying is the sum of such buying on the Shanghai-Hong Kong Stock Connect and the Shenzhen-Hong Kong Stock Connect.

Sources: CEIC and HKMA staff estimates.

The primary equity market in Hong Kong experienced a significant rebound in the first half of 2025, boosted partly by dual listings of Chinese Mainland corporates.[30] The amount of funds raised through initial public offerings (IPOs) reached HK$107.1 billion in the first half of 2025 – eight times the amount raised in the same period in 2024 (Chart 4.13).

Chart 4.13
Initial public offering market in Hong Kong



Source: Hong Kong Exchanges and Clearing Limited (HKEX).

The outlook for global equity markets will be shaped by several key factors. First, developments in trade negotiations between the US and its partners will continue to be significant drivers of investor sentiment. Secondly, the impact of tariffs on the US inflation outlook could cloud the extent and pace of interest rate cuts in the US, bringing further uncertainty to markets. Thirdly, elevated uncertainties could prompt global investors to seek greater portfolio diversifications to better manage risk, a move which could significantly drive capital flows across asset markets globally. For Hong Kong specifically, market sentiment will also be influenced by the outlook for Chinese Mainland economy, including the possibility of additional supportive measures being introduced by the authorities.

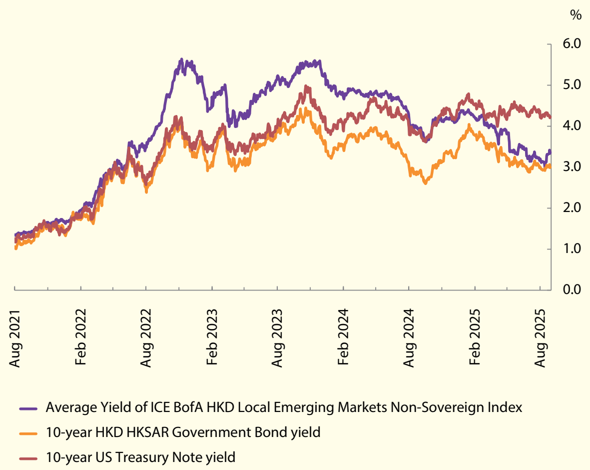
30 Seven A+H shares dual listed IPOs were listed in Hong Kong's equity market in the first half of 2025. The amount of funds raised by these IPOs accounted for about 72% of the total amount of funds raised by a total of 42 IPOs in Hong Kong in the first half of 2025.

4.4 Debt market[31]

The yield of the 10-year US Treasury Notes surged in early April (Chart 4.14), driven largely by market concerns over the potential impact of tariffs on inflation and the long-term fiscal sustainability risks posed by rising government debt and deficits in the US. Significant unwinding of leveraged US Treasury trades was another contributor[32].

Despite these developments in the US Treasury market, the yield of the 10-year HKD Hong Kong Special Administrative Region (HKSAR) Government Bond moved downward amid a relatively abundant supply of HKD funding. Mirroring this development, the average yield of HKD corporate bonds also declined.

Chart 4.14
Yields of the 10-year US Treasury Notes, the 10-year HKD HKSAR Government Bond and HKD corporate bonds



Notes: 1. Starting from 15 January 2025, the yield of the 10-year HKD HKSAR Government Bond refers to the yield of the benchmark 10-year HKD Bond issued under the Infrastructure Bond Programme and the Government Sustainable Bond Programme. Before this date, the yield refers to the benchmark 10-year HKD Bond issued under the Government Bond Programme. 2. The ICE BofA HKD Local Emerging Market Non-Sovereign Index covers HKD bonds issued by corporates and quasi-government entities.

Sources: ICE Data Indices, Bloomberg and HKMA.

Alongside the decline in the cost of HKD debt securities issuance, the total issuance of HKD debt securities in the first half of 2025 increased by 11.5% year-on-year to HK$2,828.7 billion. Non-Exchange Fund Bills and Notes (EFBN) HKD debt securities rose by 39.4% year-on-year to HK$719.4 billion (Chart 4.15).

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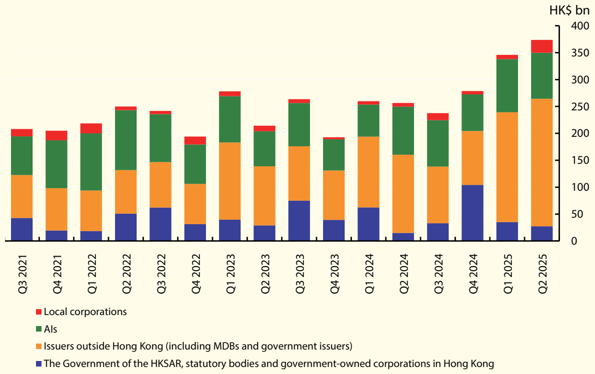
31 Debt securities statistics reported in this section include bills, bonds, notes, negotiable certificates of deposit, commercial paper, debentures, asset-backed securities, and similar instruments normally traded in the financial markets that serve as evidence of a debt. Figures of outstanding amounts of debt securities are estimated based on the maturity date of individual debt securities issued. The estimations take into account early redemptions if sufficient information is available. Figures of outstanding amounts of debt securities may be subject to overestimation. All debt securities figures are subject to revision.

32 Unwinding of swap spread trades, which exploit the difference between Treasury yields and equivalent-maturity swap rates, reportedly exacerbated the rise in the US Treasury yields. Some leveraged investors were positioned to benefit from a decrease in longer-maturity Treasury yields relative to equivalent-maturity interest rate swaps. However, the rise in longer-term US Treasury yields in early April, following the tariff announcement, rendered the swap spread trade increasingly unprofitable. This led to a quick unwinding of these leveraged trades through the sale of longer-term US Treasury securities, thereby exacerbating the rise in their yields.

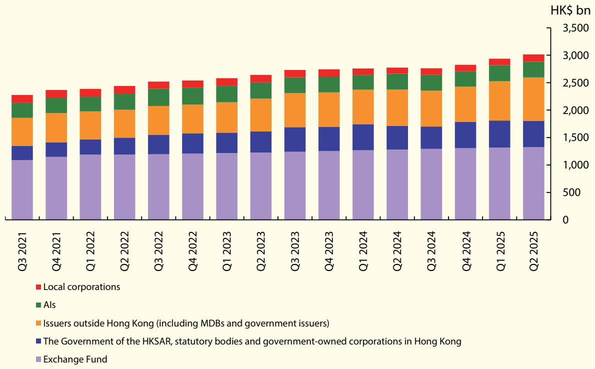
Chart 4.15
New issuance of non-EFBN HKD debt securities



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

As a result, the outstanding amount of HKD debt securities increased by 8.7% year-on-year to HK$3,015.7 billion at the end of June 2025 (Chart 4.16). The outstanding amount of non-EFBN HKD debt securities increased by 13.2% year-on-year to HK$1,690.4 billion at the end of June 2025.

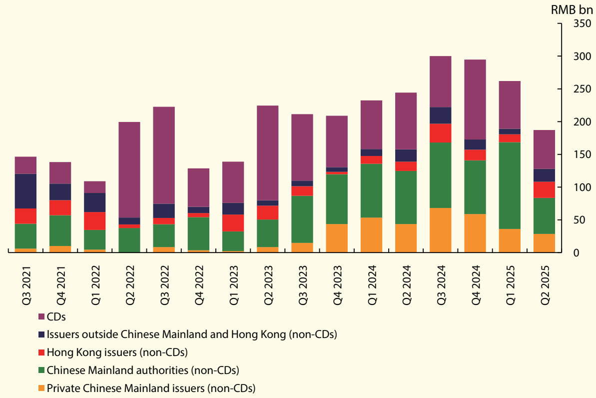
Chart 4.16
Outstanding HKD debt securities by issuer



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

The issuance of CNH debt securities in Hong Kong slowed down slightly in the first half of 2025, after reaching a peak in 2024. The amount of issuance in the first six months of 2025 totalled RMB449.2 billion, a reduction of 5.8% compared to the same period in 2024 (Chart 4.17). The slowdown was mainly attributable to a reduction in issuance by private issuers in Chinese Mainland. Despite this slowdown, the total outstanding amount of CNH debt securities issued in Hong Kong grew modestly by 0.9% from the end of December 2024 and reached RMB1,271.4 billion at the end of June 2025.

Chart 4.17
New issuance of CNH debt securities in Hong Kong



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

Looking ahead, while recent lower issuance costs have supported HKD debt activities, the sustainability of this supporting factor depends largely on HKD fund flows.

With regard to the CNH debt market in Hong Kong, heightened uncertainties in global financial markets could prompt global investors to diversify their portfolios, which may help boost demand for CNH debt securities. In addition, CNH debt market activities would continue to benefit from the moderately loose monetary policy in Chinese Mainland. Furthermore, the latest expansion of the Southbound Bond Connect investor scope could help increase Hong Kong's attractiveness to bond issuers and global investors[33], while the enhancement arrangements for the offshore RMB bond repo business and enrichments in the product types of Swap Connect will enhance the offshore RMB liquidity management and the interest rate risk management of RMB assets respectively[34,35].

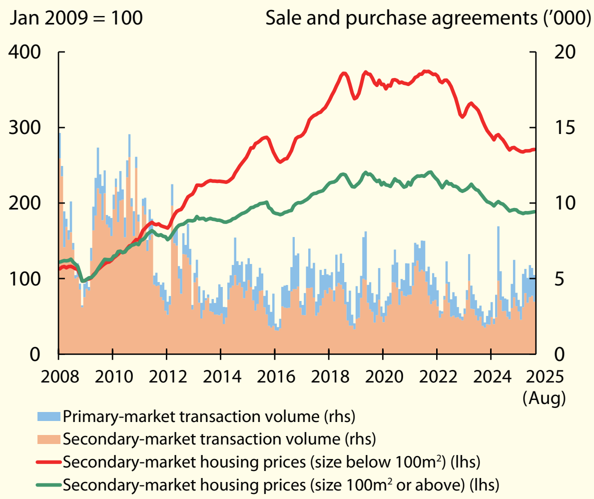
Other policy initiatives introduced during the review period would also foster local debt market development. These include the inaugural offering of 30-year HKD government bonds that helps to extend the HKD benchmark yield curve, and the signing of an MOU between CMU OmniClear and HKEX to deepen their collaboration in enhancing the post-trade securities infrastructure of Hong Kong's capital markets, and supporting the long-term development of Hong Kong's fixed-income and currencies ecosystem.

4.5 Property markets

Residential property market

The residential property market has stabilised since the second quarter of 2025 after softening in the previous quarter. With eased financial conditions, market sentiment improved and flat-viewing activities became more vibrant between May and early September. In tandem, some property developers continued to boost sales of their new launches with competitive pricing strategies. As a result, the average monthly housing transaction volume increased from 4,064 units in the first quarter to 5,585 units in the second quarter, and remained largely steady at 5,529 units in July to August (Chart 4.18).

Chart 4.18
Residential property prices and transaction volumes



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

Secondary-market housing prices have also held up alongside improving market sentiment. In particular, prices of small and medium-sized flats (with a saleable area of less than 100m^2) and large flats (with a saleable area of 100m^2 or above) edged up by 1.3% and 1.2% respectively between April and August (Chart 4.18). More timely statistics compiled by property agencies indicated that housing prices remained steady in early September.

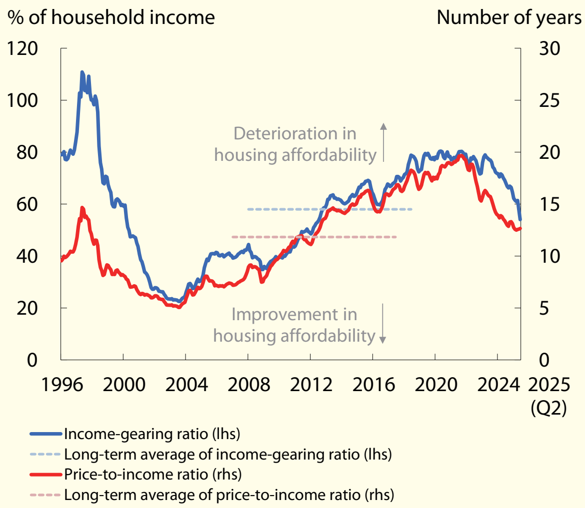
33 The Southbound Bond Connect investor scope has been expanded to include securities firms, fund companies, insurance companies and wealth management companies, formally effective from 8 July 2025. For details, please see https://www.hkma.gov.hk/eng/news-and-media/speeches/2025/07/20250708-1/.

34 Two enhancement arrangements for offshore RMB repo business were launched on 25 August 2025, supporting i) rehypothecation of bond collaterals and ii) cross-currency repo. For details, please see https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/08/20250825-5/.

35 The PBoC, the SFC and the HKMA jointly announced on 15 May 2025 on further enriching the product types of Swap Connects. These include i) an expansion of the tenor of interest rate swap contracts to 30 years (launched on 30 June 2025) and ii) an expansion of the product scope by including interest rate swap contracts using the Loan Prime Rate as the reference rate (launched on 22 September 2025). For details, please see https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/05/20250515-7/.

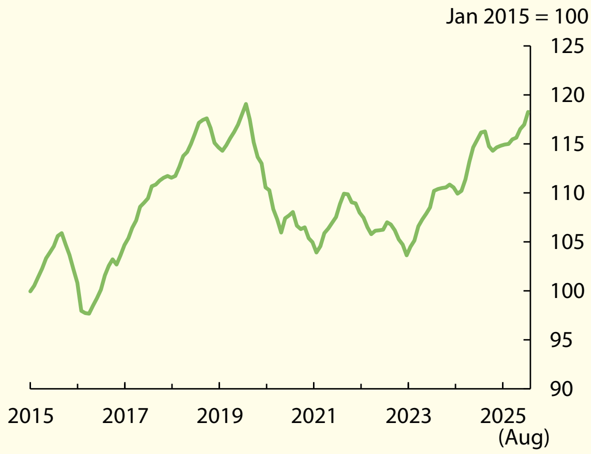
Housing affordability, despite remaining stretched, improved further in the first half of 2025. Specifically, the housing price-to-income ratio eased to 12.6 in the second quarter of 2025. With lowered mortgage rates in the second quarter, the income-gearing ratio also decreased to 57.7% (Chart 4.19).[36] On the leasing market front, housing rentals rose further by 3.1% from February to August 2025 (Chart 4.20), with residential rental yields standing at 3.2% in July.

Chart 4.19
Indicators of housing affordability



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

Chart 4.20
Residential property rental index



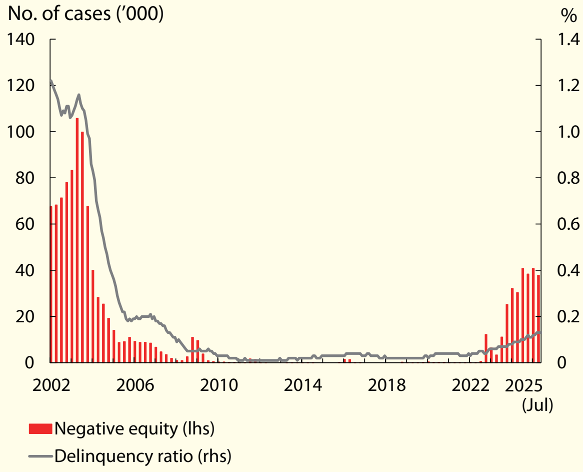
Source: R&VD.

Reflecting the movements in housing prices, the estimated number of residential mortgage loans (RMLs) in negative equity retreated to 37,806 cases at the end of June from 40,741 cases at the end of March (Chart 4.21). These cases were mostly related to bank staff housing loans or RMLs under the Mortgage Insurance Programme (MIP), which generally have a higher loan-to-value (LTV) ratio. Given that the delinquency ratio of all outstanding RMLs remained at a low level of 0.13% in July[37], and that over half of private housing units did not carry any outstanding mortgages, the systemic risks relating to banks' RMLs are being properly managed on various fronts.

[36] 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. The income-gearing ratio compares mortgage payments for a typical 50m² flat (under a 20-year mortgage scheme with a 70% loan-to-value (LTV) ratio) to the median income of households living in private housing. The income-gearing ratio is not the same as a borrower's actual debt-servicing ratio (DSR), which is subject to a maximum cap under the HKMA supervisory requirements.

[37] The delinquency ratio of RMLs in negative equity also remained at a low level of 0.21% at the end of June 2025.

Chart 4.21
Negative equity and mortgage delinquency ratio

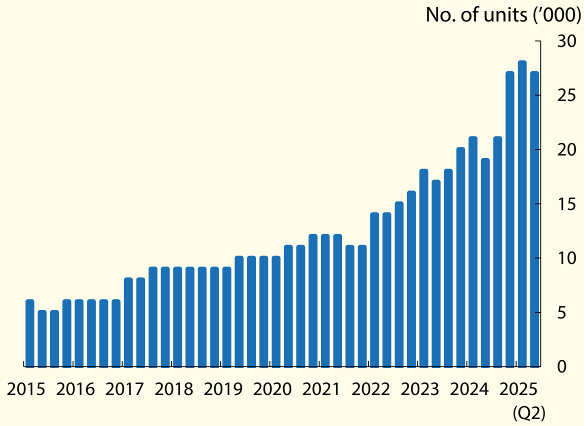


Source: HKMA.

The HKMA continues to monitor market development closely and implement supervisory requirements on RMLs as appropriate to safeguard banking stability. In fact, the average LTV ratio and debt-servicing ratio (DSR) for new mortgages remained steady at about 63% and 40% respectively in July. The HKMA considers that the Hong Kong banking sector has ample buffers to withstand any risks and challenges arising from the property market.

The residential property market outlook is subject to a number of uncertainties and risks. On the one hand, accumulated inventories in the primary market[38] (Chart 4.22), coupled with uncertainties surrounding the global economic outlook, may continue to weigh on market sentiment in the near term. On the other hand, the Government's ongoing policies to attract businesses and talents, together with the enhancement of the New Capital Investment Entrant Scheme (CIES)[39], should continue to provide some support for housing demand. Over the longer term, the outlook for the housing market will depend on the supply-demand gap. The Government projects that the private housing supply will remain high in the coming years.[40]

Chart 4.22
Unsold units in completed projects



Source: Housing Bureau.

Commercial real estate (CRE) market[41]

The CRE market remained under pressure in the first seven months of 2025. The average monthly transaction volume rose to 368 units during the period, up from 291 units in the second half of 2024. Meanwhile, speculative activities remained limited (Chart 4.23). Despite a higher transaction volume, prices for office spaces, retail premises and flatted factories remained under pressure during the period (Chart 4.24). In the leasing market, rentals in all three segments also continued to adjust (Chart 4.25). Overall, rental yields across segments edged up to 3.5%–4.1% in July 2025.

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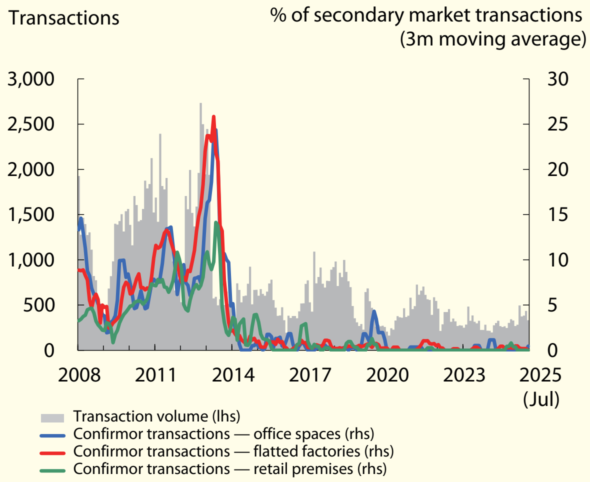
38 There were around 27,000 unsold units in completed projects as of the end of June 2025.

39 In the 2025 Policy Address, the Government announced an enhancement to the New CIES, under which the transaction price threshold for residential property investments will be lowered from HK$50 million to HK$30 million.

40 According to the Housing Bureau, the potential first-hand private housing supply for the next three to four years will remain elevated at around 101,000 units as estimated at the end of June 2025.

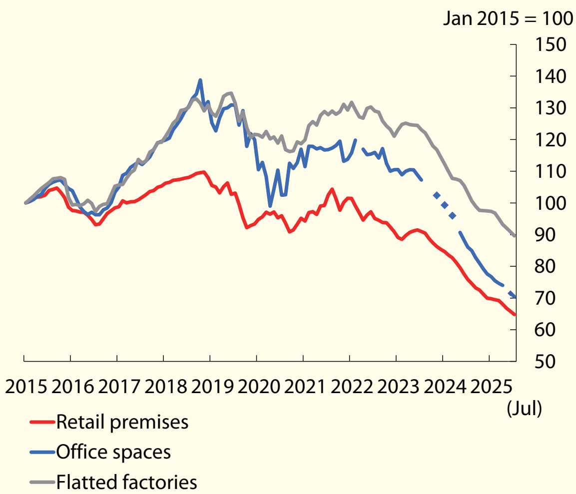
41 CRE refers to office spaces, retail premises and flatted factories.

Chart 4.23
Transactions in commercial real estate



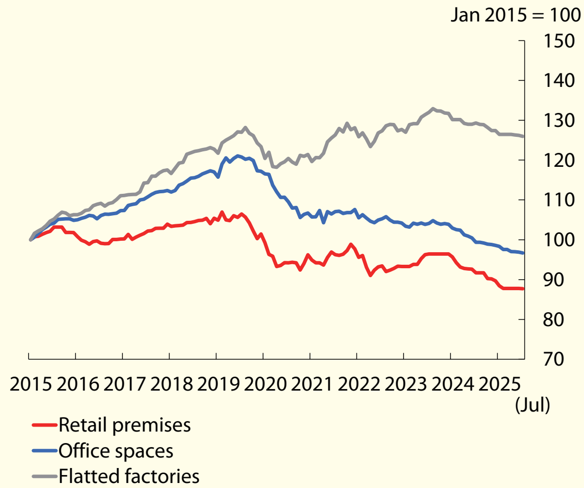
Sources: R&VD and Centaline Property Agency Limited.

Chart 4.24
Commercial real estate price indices



Note: The price index of office spaces could not be compiled in certain months due to insufficient transaction data for analysis.
Source: R&VD.

Chart 4.25
Commercial real estate rental indices



Source: R&VD.

In the near term, office spaces are expected to continue to face challenges amid high vacancy rates, while retail premises will remain under pressure due to changing consumption patterns in Hong Kong. However, the market may receive some support from improving inbound tourism, the Government's continuous efforts to attract businesses, and measures to bolster the office spaces market[42].

[42] On 21 July 2025, the Development Bureau and the Education Bureau announced the Hostels in the City Scheme, which streamlined development control procedures to encourage and facilitate the market to convert commercial buildings into student hostels. Market analysts expect that grade B and grade C office spaces would benefit the most under the scheme. In the 2025 Policy Address, the Government further announced that, apart from cases involving the conversion of commercial buildings, cases involving redevelopment of original commercial buildings into new student hostels can also enjoy the facilitation measures under the scheme.

Box 3
Examining the "stigma effect" associated with the HKMA's Discount Window

Introduction

A core function of central banks is to support banks in meeting their short-term liquidity obligations. However, international experience[42] suggests that banks' use of short-term liquidity facilities may be hampered by the "stigma effect", a concern that such borrowing could signal financial weakness to stakeholders.

In Hong Kong, the HKMA's Liquidity Facilities Framework provides funding or liquidity support to banks in case of need. Among the various liquidity facilities available in the Framework, the DW allows banks to use their holdings of Exchange Fund Paper as collateral to obtain overnight HKD liquidity.[43] To help mitigate the stigma effect, the HKMA has advised banks not to be concerned about tapping the liquidity facilities.[44]

This box studies the usage of the HKMA's DW from 2018 to 2024, focusing on two key questions: (1) Has DW usage increased across the latest rate hike cycle since 2022, a period when the HKMA has been more proactive in communicating with banks about its liquidity facilities? (2) Has the stigma effect surrounding the DW reduced in the same period? The analysis below demonstrates that the answers to both questions are affirmative. These findings suggest that the HKMA's ongoing communication efforts to mitigate the stigma effect have been effective.

[42] See, for example, Armantier et al. (2024) and Winters (2012).

[43] Intraday repo is the other Settlement Facilities. Banks can use their holdings of Exchange Fund Paper as collateral to obtain intraday liquidity through the Intraday Repo at zero cost, provided that they can repay the repo before the close of business. Intraday repos that cannot be repurchased before the close of business will be rolled into overnight borrowing under the DW, for which interest is charged by the HKMA.

[44] For details, see the inSight article "Recent movements in the Hong Kong dollar interbank rates – Some observations" in June 2023: https://www.hkma.gov.hk/eng/news-and-media/insight/2023/06/20230614/

DW usage and its stigma effect over time

The need to use the DW depends on the liquidity condition at the time. Table B3.1 therefore divides 2018–2024 into three periods based on the average level of Aggregate Balance and policy rate, i.e. the Base Rate, as shown in the top panel of Chart B3.1, and describes the liquidity condition in each period:

Table B3.1
Breakdown of 2018–2024 by liquidity conditions

Period	Average level		
	Aggregate Balance	Base Rate	Liquidity condition
Period 1 (01/01/2018–07/05/2020)	Low	High	Relatively tight
Period 2 (08/05/2020–16/03/2022)	High	Low	Relatively loose
Period 3 (17/03/2022–31/12/2024)	Low	High	Relatively tight

Source: HKMA.

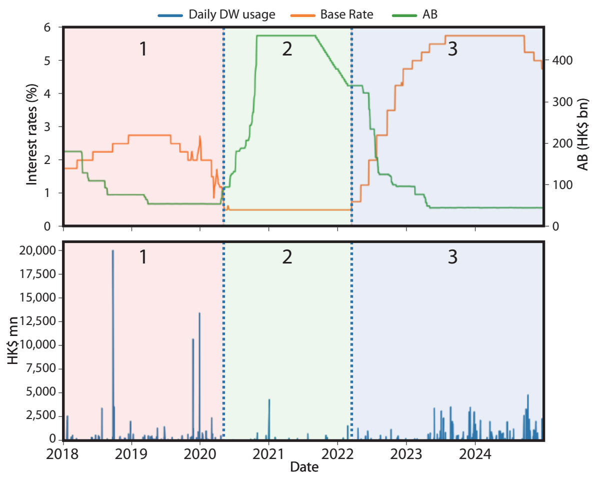
In response to the relatively tight liquidity in Period 3, the HKMA undertook direct communication efforts in which it encouraged banks to make good use of its liquidity facilities. If these communication efforts were effective, one would expect to see higher DW usage and a less pronounced stigma effect in Period 3 compared to Period 1, an earlier period with tight liquidity.

(1) Has DW usage increased?

The bottom panel of Chart B3.1 shows the usage of the DW in 2018–2024. As expected, the DW was used infrequently in Period 2 due to its overall abundant liquidity. Comparing the usage of the DW in Periods 1 and 3, both with tighter liquidity conditions, DW usage in Period 3 was more frequent and sustained, especially towards the second half of the Period.[45] This indicates that banks were adapting to changing market developments and were willing to make good use of the DW.

[45] Regression analysis confirms that the increase in DW usage in Period 3 was statistically significant, after controlling for within-period liquidity conditions.

Chart B3.1
HKD liquidity and daily DW activities



Source: HKMA staff estimates.

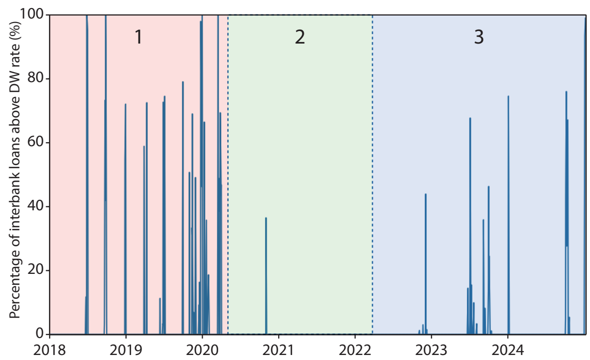
(2) Has the stigma effect declined?

The stigma effect refers to the additional interest cost that a bank is willing to pay in the interbank market to avoid accessing the DW. It is, however, not observable. For example, if a bank borrows in the interbank market overnight at 10 basis points (bps) above the rate at the DW, this does not mean that the bank's stigma is 10bps – as the bank may be willing to pay a premium of up to 15 bps. In practice, we follow Armantier et al. (2024) in measuring the observed (positive) spread that the bank actually pays on the overnight interbank rate above the applicable DW rate[46] in order to avoid using the DW. This observed spread is referred to as the bank's "realised stigma".

To obtain the overnight interbank rate at the loan level, this study used internal transactional data from the HKD RTGS system, which settles large-value payments between banks. The dataset contains 53.7 million transactions made during the period of study. Using this data, 300,000 interbank loans were identified using the Furfine (1999) algorithm, which matches large lump-sum transfers from one bank to another with those of a slightly higher amount transferred back in the opposite direction the following business day. The interbank interest rate can then be inferred by the difference in the two transfer amounts.

Chart B3.2 shows the daily share of identified overnight interbank loans that exhibited realised stigma (i.e. inferred interbank rates higher than the DW rates). Higher shares were mainly observed during periods of relatively tight liquidity (i.e. Periods 1 and 3). However, even in these Periods, realised stigma was observed rather infrequently. It was primarily observed on days when liquidity conditions were particularly tight, such as in periods of seasonal funding demand, including period-ends[47] and dividend-related funding demand, and on days of other occasional demand, such as large-scale IPOs[48] and vibrant equity market activity.

Chart B3.2
Percentage of interbank loans above the DW rate



Source: HKMA staff estimates.

[46] The applicable DW rate for a bank depends on the percentage of its DW borrowing relative to the EFBNs it holds: (i) for the first 50% of DW borrowing, the applicable DW rate is the Base Rate; and, (ii) for the next 50%, the applicable DW rate is the higher of the Base Rate plus 5% or the overnight HIBOR for the day.

[47] Period-ends include month-, quarter- and year-ends.

[48] Fast Interface for New Issuance launched in November 2023, shortened Hong Kong's IPO settlement cycle from "T+5" to "T+2", helping relieve pressure on HKD liquidity during large IPOs.

Table B3.2 reports more statistics on how the stigma effect has evolved over time. Overnight interbank loans were less likely to exhibit realised stigma in Period 3 compared to those in Period 1 (Period 3 = 1.6% vs Period 1 = 4.4%). This can also be observed in Chart B3.2, in which the blue lines are fewer and shorter in Period 3 than in Period 1. Furthermore, for loans that did exhibit realised stigma, the sizes of the stigma spread were, on average, smaller in magnitude in Period 3 (Period 3 = 35.2bps vs Period 1 = 47.8bps), despite a higher Base Rate and lower Aggregate Balance, i.e. a tighter liquidity condition.

Table B3.2
Interbank loans above the DW rate

	Period		
	1	2	3
Share of interbank loans above DW rate (%)	4.42	0.19	1.60
Realised stigma spread (bps)	47.8	4.4	35.2

Notes: The top item focuses on the share of interbank loans borrowed above the DW rate, in terms of volume. The bottom item focuses on realised stigma spread, the volume weighted average spread above the DW rate, for all interbank loans borrowed above the DW rate.

Source: HKMA staff estimates.

Conclusion and implications

This study finds that not only has the HKMA's DW usage increased in recent times, but that the stigma effect associated with usage of the DW has also reduced in both frequency and magnitude in the recent period of tight liquidity compared with the previous period in 2018–2020. These trends coincide with the HKMA's communication efforts with banks to mitigate stigma, and the findings support the effectiveness of its communication efforts.

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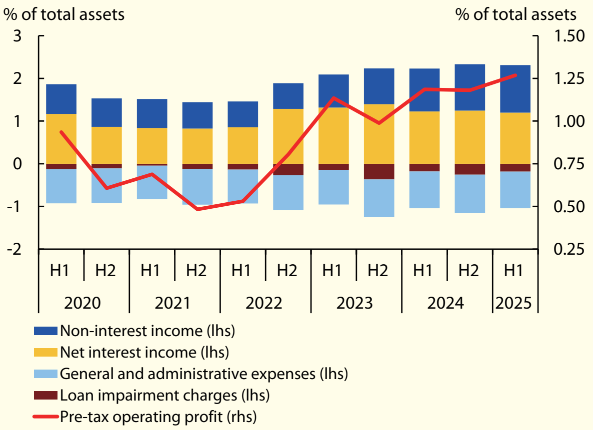
5. Banking sector performance

5.1 Profitability

Profitability

The aggregate pre-tax operating profit of retail banks[49] grew by 13.4% in the first half of 2025 compared with the same period in 2024. The increase in earnings was mainly attributable to increases in income from foreign exchange and derivatives operations and income from fees and commissions, which offset a decrease in income from investments held for trading. Overall, banks' return on assets improved to 1.27% in the first half of 2025, compared with 1.19% in the same period in 2024 (Chart 5.1).

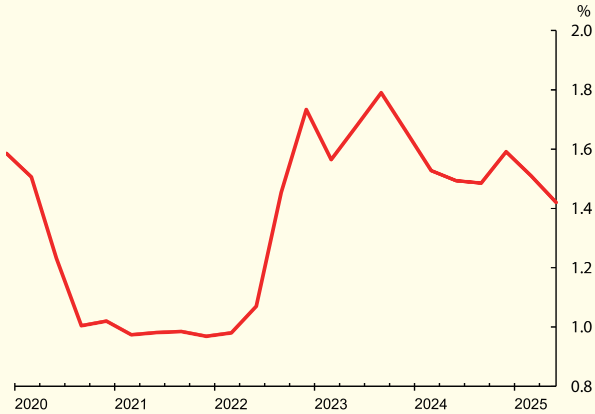
Chart 5.1
Profitability of retail banks



Note: Annualised semi-annual figures.
Source: HKMA.

Partly reflecting the decline in Hong Kong dollar (HKD) interest rates during the review period, retail banks' net interest margin narrowed to 1.47% in the first half of 2025 from 1.51% in the same period in 2024 (Chart 5.2).

Chart 5.2
Net interest margin of retail banks



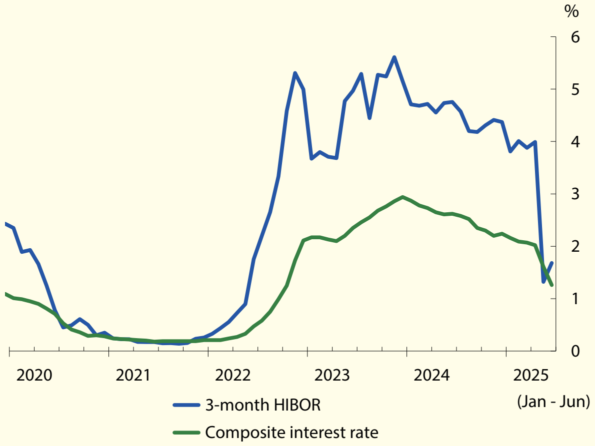
Note: Annualised quarterly figures.
Source: HKMA.

As liquidity conditions eased following the expansion of the Aggregate Balance in May this year, the short-term Hong Kong Interbank Offered Rates (HIBORs) decreased sharply in the first half of 2025. For instance, the 3-month HIBOR declined by 269 basis points in the first half of 2025, reaching 1.68% at the end of June 2025 (blue line in Chart 5.3). However, with the reduction of the Aggregate Balance following weak-side CU triggering between late June and mid-August, HIBOR began to pick up since then.

On the retail front, retail banks reduced their HKD time deposit rates amid ample liquidity. Reflecting decreases in both wholesale and retail funding costs, the composite interest rate (a measurement of the average cost of HKD funds for retail banks) decreased by 98 basis points to 1.26% at the end of June 2025 (green line in Chart 5.3), though at a slower pace of decline than that of HIBORs.

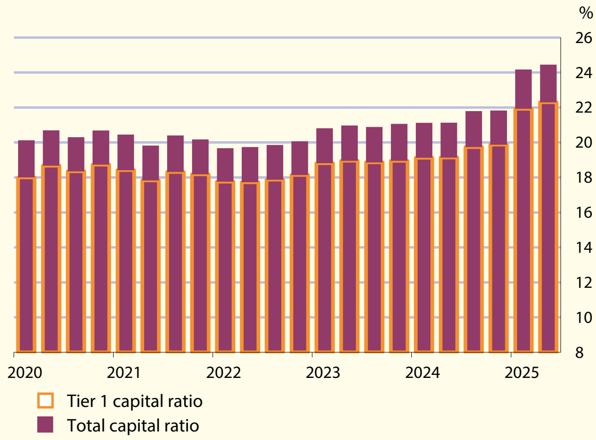
[49] Throughout this chapter, figures for the banking sector relate to banks' Hong Kong offices only, unless otherwise stated.

Chart 5.3
HKD Interest rates



Note: End-of-period figures.
Sources: HKMA and staff estimates.

Chart 5.4
Capital positions of locally incorporated authorized institutions



Note: Consolidated basis.
Source: HKMA.

5.2 Capital and liquidity positions

Capitalisation

The Hong Kong banking sector remained well-capitalised. The consolidated total capital ratio of locally incorporated authorized institutions (AIs) stood at a high level of 24.4% at the end of the first half of 2025 (Chart 5.4), well above the international minimum requirement of 8%.[50] In addition, the non-risk-based Leverage Ratio of locally incorporated AIs stood at a healthy level of 7.9% at the end of June 2025, exceeding the statutory minimum of 3%.

Liquidity and funding

The liquidity and funding positions of the banking sector, as measured by Basel III liquidity standards, also remained sound during the review period. The average Liquidity Coverage Ratio (LCR) of category 1 institutions and the average Liquidity Maintenance Ratio (LMR) of category 2 institutions were 172.8% and 66.8% respectively in the second quarter of 2025 (upper two rows in Table 5A), remaining well above their corresponding statutory minimum requirements of 100% and 25%.

Table 5.A
Liquidity and funding requirement ratios

Ratios (%)	Dec 2024	Mar 2025	Jun 2025
Liquidity Coverage Ratio (quarterly average)	178.4	182.5	172.8
Liquidity Maintenance Ratio (quarterly average)	67.0	67.0	66.8
Net Stable Funding Ratio	143.4	143.0	143.9
Core Funding Ratio	186.7	186.8	191.1

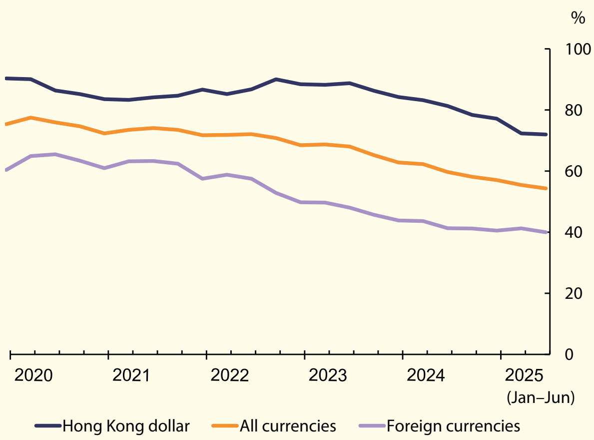
Note: Consolidated basis.
Source: HKMA.

50 The Tier 1 capital ratio and the Common Equity Tier 1 (CET1) capital ratio were 22.3% and 19.9% respectively.

Meanwhile, the average Net Stable Funding Ratio of category 1 institutions remained at 143.9% as at the end of June 2025, well above the statutory minimum requirement of 100%. The average Core Funding Ratio of category 2A institutions increased to 191.1% (bottom two rows in Table 5A), substantially above the statutory minimum requirement of 75%.

The average all-currency loan-to-deposit (LTD) ratio of all AIs declined further to 54.3% at the end of June 2025, compared to 57.0% at the end of December 2024 (Chart 5.5). The decline in the ratio was attributable to the relatively faster growth rate of total deposits than that of total lending during the review period. The HKD and foreign-currency LTD ratios decreased to 72.0% and 40.0% at the end of June 2025 respectively, compared to 77.1% and 40.5% six months ago.

Chart 5.5
Average loan-to-deposit ratios of all authorized institutions



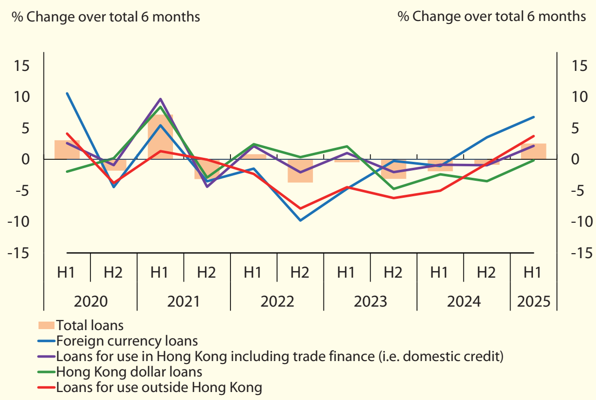
Note: End-of-quarter figures.
Source: HKMA.

5.3 Credit risk

Overview

Total bank credit reverted to positive growth in the first half of 2025. On a half-yearly basis, the total loans and advances of all AIs increased by 2.5% in the first half of 2025, after decreasing by 0.9% in the second half of 2024 (Chart 5.6). Contributing to this growth were moderate increases in both domestic loans (comprising loans for use in Hong Kong and trade financing) and loans for use outside Hong Kong, which respectively increased by 2.1% and 3.7% in the first half of 2025.

Chart 5.6
Loan growth



Source: HKMA.

Credit demand is expected to remain stable in the near term. According to the results of the HKMA Opinion Survey on Credit Condition Outlook in June 2025, 70% of the surveyed AIs expect loan demand to stay the same in the coming three months (Table 5.B), similar to the expectation level recorded six months ago.

Table 5.B
Expectations of loan demand in the next three months

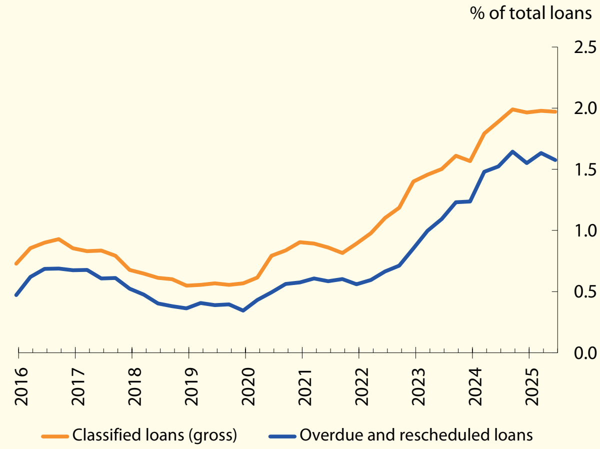
% of total respondents	Dec 2024	Mar 2025	Jun 2025
Considerably higher	0	0	0
Somewhat higher	20	13	17
Same	73	63	70
Somewhat lower	7	23	13
Considerably lower	0	0	0
Total	100	100	100

Note: Figures may not add up to total due to rounding.
Source: HKMA.

The classified loan ratio (CLR) continued to face upward pressure during the review period, but the overall asset quality of the banking sector remained manageable, with banks maintaining sufficient provisions. The gross CLR of all AIs edged up to 1.97% at the end of June 2025 from 1.96% at the end of December 2024. The ratio of overdue and rescheduled loans of all AIs also rose from 1.55% at the end of December 2024 to 1.58% at the end of June 2025 (Chart 5.7).

The upward pressure in CLR in recent periods was largely driven by commercial real estate (CRE) loans, as the CRE market has been under pressure from factors including interest rates and market supply and demand dynamics. Nonetheless, banks' credit risk associated with CRE loans is assessed to be manageable.[51]

Chart 5.7
Asset quality of all authorized institutions



Note: Classified loans are those loans graded as "sub-standard", "doubtful" or "loss".
Source: HKMA.

Household exposure[52]

Household debt grew by 1.8% in the first half of 2025, faster than the 0.6% increase in the second half of 2024 (Table 5.C). A breakdown of the data shows that the growth of residential mortgage loans increased to 1.2% in the first half of 2025 amid increased residential property transactions during the period. Over the same period, the growth of personal loans increased to 3.1%.

51 For details, see the inSight article "Credit risk management of commercial real estate exposures" issued on 13 August 2025 (https://www.hkma.gov.hk/eng/news-and-media/insight/2025/08/20250813/)

52 Loans to households constitute lending to professional and private individuals, excluding lending for other business purposes. Mortgages account for the major proportion of household loans, while the remainder comprises mainly loans to private banking and wealth management customers secured by financial assets, credit card advances and unsecured personal loans. At the end of June 2025, household lending accounted for 37.1% of domestic lending. In this section, household debt is also referred to as loans to households.

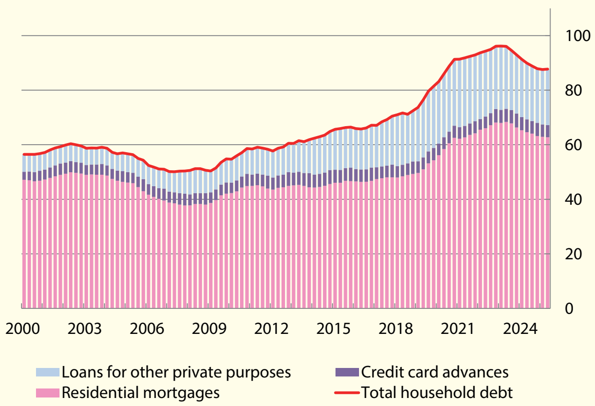
Table 5.C
Half-yearly growth of loans to households by all authorized institutions

(%)	2022 H1	2022 H2	2023 H1	2023 H2	2024 H1	2024 H2	2025 H1
Residential mortgages	2.1	1.9	2.6	0.8	0.8	0.6	1.2
Personal loans	−2.5	−2.2	1.4	−0.3	−1.7	0.5	3.1
of which:							
Credit card advances	−5.3	14.4	0.2	10.5	−5.3	6.7	−7.0
Loans for other private purposes	−2.0	−5.1	1.6	−2.6	−0.9	−1.0	5.6
Total loans to households	0.7	0.7	2.2	0.5	0.0	0.6	1.8

Source: HKMA.

The household debt-to-GDP ratio decreased slightly to 87.8% in the first half of 2025 (Chart 5.8) from 87.9% in the second half of 2024, as Hong Kong's nominal GDP grew at a faster pace than household debt.

Chart 5.8
Household debt-to-GDP and its components



Notes:
1. Only borrowings from AIs are covered.
2. GDP refers to the annualised GDP, which is the sum of the quarterly GDP in the trailing four quarters.
3. Since December 2018, the figure for household debt has been restated to reflect AIs' reclassification of their working capital loans.

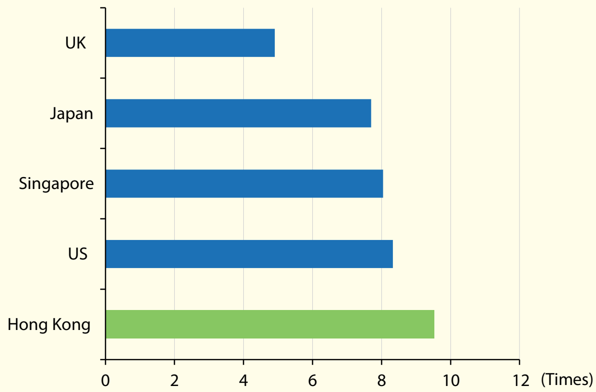
Source: HKMA.

When interpreting the household debt-to-GDP ratio, it is important to take into account that the denominator of the ratio uses nominal GDP as a proxy for household income for ease of comparison across economies. Therefore, the household debt-to-GDP ratio does not reflect the actual debt servicing burden of households in the economy.

A full and objective assessment of the risks associated with household debt requires other factors to be considered. In fact, the average debt servicing ratio (DSR) of new mortgages remained at a healthy level of 39.7% in July 2025. Household net worth has also stayed at a high level, with both the net worth-to-liabilities ratio and the safe asset-to-liabilities ratio of Hong Kong's household sector (Charts 5.9 and 5.10) remaining higher than those of most other developed economies.

The HKMA has been closely monitoring household indebtedness. The majority of household debts are residential mortgage loans, which are governed by the macroprudential policy framework, as well as collateralised loans to wealth management customers, which are subject to prudent and effective credit risk management measures by banks. The HKMA also requires banks to adopt prudent underwriting standards for credit card advance and unsecured personal loan businesses. Altogether, the HKMA considers the household balance sheet to be healthy and the associated credit risk to be manageable.

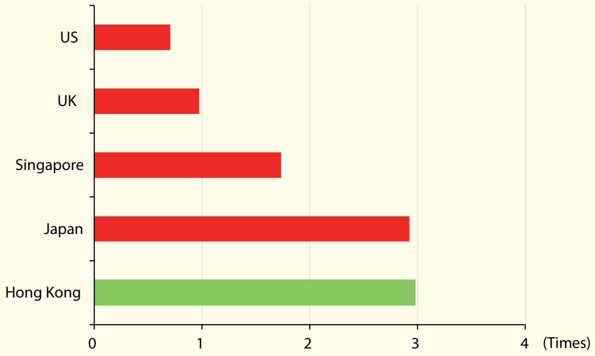
Chart 5.9
Household net worth-to-liabilities ratio for selected economies



Note: Figures for Singapore, the UK and the US refer to end-2024, while figures for other economies (including Hong Kong) refer to end-2023.

Sources: Statistical agencies or central banks of selected economies, and HKMA staff estimates.

Chart 5.10
Safe assets-to-liabilities ratio for selected economies

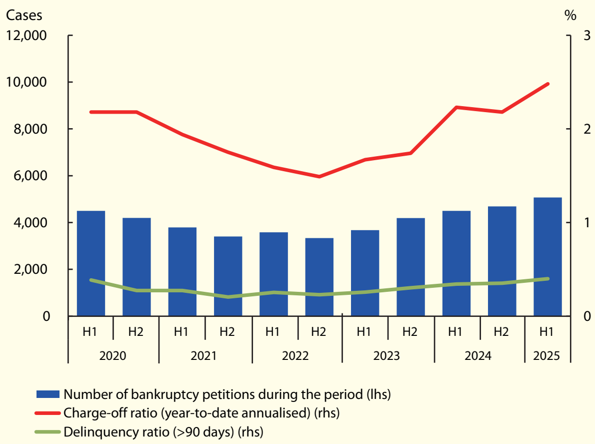


Note: Safe assets comprise deposits, as well as currencies if data is available. In the case of Hong Kong, safe assets refer to deposits only. Figures for Singapore, the UK and the US refer to end-2024, while figures for other economies (including Hong Kong) refer to end-2023.

Sources: Statistical agencies or central banks of selected economies, and HKMA staff estimates.

While the credit risk situation for unsecured household exposure has deteriorated slightly, it remained contained during the review period. The year-to-date annualised credit card charge-off ratio rose to 2.48% in the first half of 2025 from 2.18% at the end of 2024 (Chart 5.11). The delinquency ratio edged up to 0.40% in June 2025.

Chart 5.11
Charge-off ratio and delinquency ratio for credit card lending and bankruptcy petitions

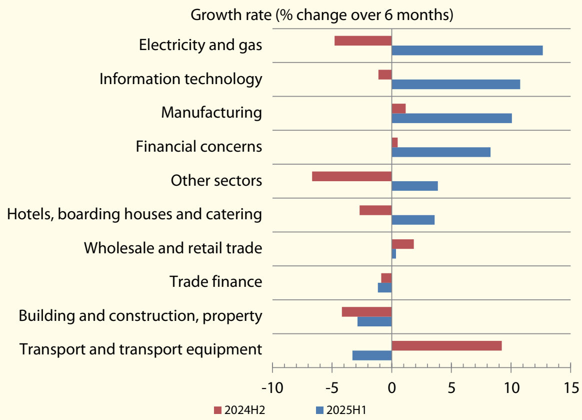


Sources: Official Receiver's Office and HKMA.

Corporate exposure[53]

Domestic corporate loans grew by 2.4% during the first half of 2025, marking the first positive half-yearly growth since the first half of 2023. Lending to the electricity and gas, information technology, and manufacturing sectors registered higher growth, while loans to the transport and transport equipment, and the building, construction and property sectors declined moderately (Chart 5.12).

Chart 5.12
Growth in domestic corporate loans by selected sectors



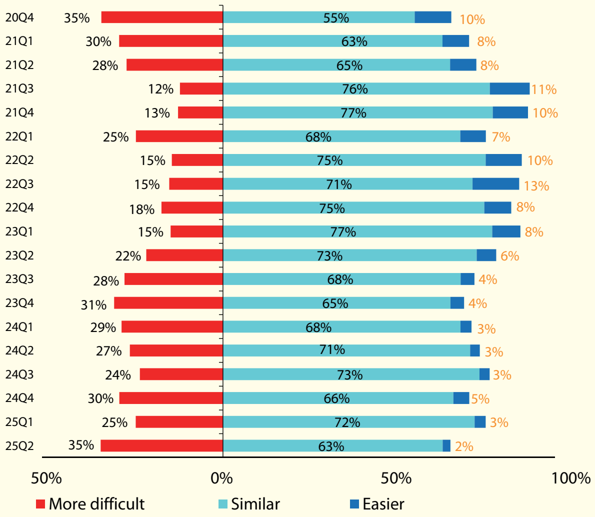
Source: HKMA.

The demand-side survey on the credit conditions of small and medium-sized enterprises (SMEs) showed that SMEs' credit conditions remained broadly stable. In the second quarter of 2025, 35% of respondents perceived more difficult credit approval (Chart 5.13), a proportion that was within the normal range.

Meanwhile, among respondents with existing credit lines, only 1% reported a "tighter" banks' stance (Chart 5.14). In this survey, a tighter stance on existing credit lines denotes a range of possible measures or arrangements, such as raising the interest rate. Therefore, respondents' indication may not directly reflect banks' supply of credit to SMEs.

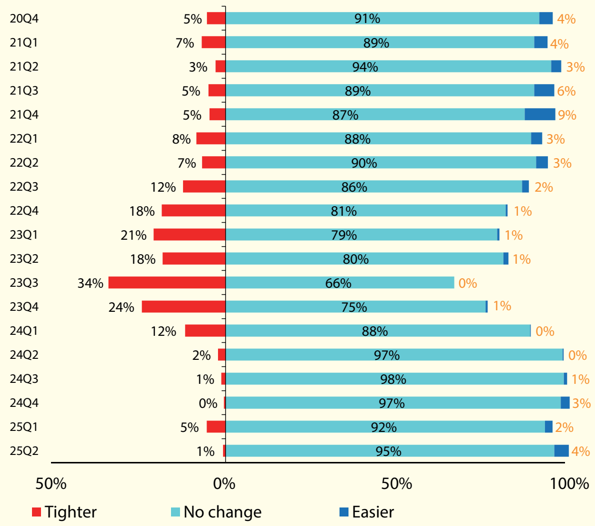
[53] Excluding interbank exposure. At the end of June 2025, the share of corporate loans in domestic lending was 62.8%.

Chart 5.13
SMEs' perception of banks' credit approval stance relative to six months ago



Note: Excluding respondents who answered "no idea/don't know".
Source: HKMA.

Chart 5.14
SMEs' reported change in banks' stance on existing credit lines

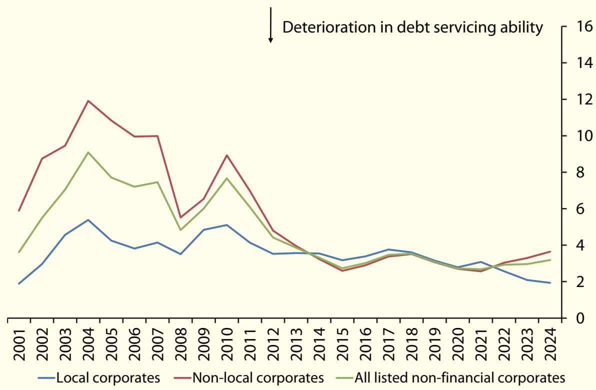


Note: The data covers only respondents with existing credit lines.
Source: HKMA.

The HKMA and the banking sector have continued to support SMEs to cope with the changing business environment. In light of the global trade tensions and external uncertainties, additional support measures were introduced on 8 April to further assist SMEs from various industries in obtaining bank financing and in their upgrade and transformation.[54] The total amount of dedicated funds for SMEs set aside by the 18 participating banks in the Taskforce on SME Lending has increased to more than HK$390 billion.

The latest available financial information presents a broadly stable picture of the financial health of listed corporates. The debt servicing ability of non-financial corporates listed in Hong Kong, as indicated by the weighted average interest coverage ratio (ICR), showed signs of improvement in 2024 (Chart 5.15). Meanwhile, corporate leverage, as indicated by the weighted average debt-to-equity ratio, fell slightly (Chart 5.16).

Chart 5.15
Interest coverage ratio of listed non-financial corporates in Hong Kong

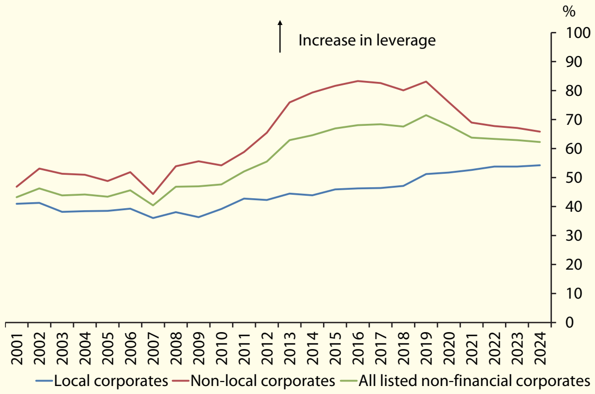


Notes:
1. Weighted average figures.
2. The ICR is calculated by dividing the earnings before interest and tax by total interest expenses. A lower value indicates a deterioration in debt servicing ability.
3. All non-financial corporates listed on the Hong Kong Stock Exchange are selected. Local and non-local corporates refer to listed firms that are domiciled in and outside Hong Kong, respectively.
4. Figures are calculated based on information up to early August 2025.

Source: HKMA staff estimates based on data from Bloomberg.

[54] For details, see the press release "HKMA and banking sector support SMEs from various industries" on 8 April 2025 (https://www.hkma.gov.hk/eng/news-and-media/press-releases/2025/04/20250408-8/).

Chart 5.16
Leverage ratio of listed non-financial corporates in Hong Kong



Notes:
1. Weighted average figures.
2. The leverage ratio is defined as the ratio of debt to equity. A higher value indicates higher leverage.
3. All non-financial corporates listed on the Hong Kong Stock Exchange are selected. Local and non-local corporates refer to listed firms that are domiciled in and outside Hong Kong, respectively.
4. Figures are calculated based on information up to early August 2025.

Source: HKMA staff estimates based on data from Bloomberg.

Mainland-related lending

The banking sector's total Mainland-related lending increased by 3.9% to HK$4,023 billion (12.0% of total assets) at the end of June 2025, from HK$3,873 billion (12.2% of total assets) at the end of 2024 (Table 5.D). The gross CLR of Mainland-related lending of all AIs[55] decreased to 2.16% at the end of June 2025 from 2.37% six months earlier.

Table 5.D
Mainland-related lending

HK$ bn	Dec 2024	Mar 2025	Jun 2025
Mainland-related loans	3,873	3,915	4,023
Mainland-related loans excluding trade finance	3,650	3,694	3,801
Trade finance	223	221	222

Note: Figures may not add up to the total due to rounding.
Source: HKMA.

Macro stress testing of credit risk[56]

Results of the latest macro stress testing on retail banks' credit exposure suggest the Hong Kong banking sector remains resilient and should be able to withstand severe macroeconomic and corporate shocks. Table 5.E presents a simulated future credit loss rate of retail banks in the second quarter of 2027 under four specific macroeconomic shocks and one corporate shock using information up to the second quarter of 2025. In stressed scenarios, the average expected credit losses two years after different shocks are estimated to be moderate, ranging from 0.92% (property price shock and interest rate shock) to 1.30% (Hong Kong GDP shock).

Taking into account tail risk, the value-at-risk (VaR) at 99% confidence level (CL) of bank credit loss would increase in all five stressed scenarios, ranging from 2.42% (property price shock) to 3.25% (Hong Kong GDP shock).

[55] Figures cover AIs' Hong Kong offices and Mainland branches and subsidiaries.

[56] Macro stress testing refers to a range of techniques used to assess the vulnerability of a financial system to "exceptional but plausible" macroeconomic shocks. The credit loss estimates presented in this report are based on a revised framework presented in Box 4 of the *Half-Yearly Monetary and Financial Stability Report* published in September 2023. Estimates in the current report are not strictly comparable to estimates from previous reports.

Table 5.E
The mean and value-at-risk statistics of simulated credit loss distributions[1]

Scenario	Estimated credit loss (% of the loan portfolio) Mean	VaR at 99% CL
Baseline[2]	0.70	1.86
Stressed scenarios[3]		
Hong Kong GDP shock	1.30	3.25
Property price shock	0.92	2.42
Interest rate shock	0.92	2.43
Chinese Mainland GDP shock	1.15	2.86
Corporate Shock	1.28	3.12

Notes:
1. The assessments assume the economic conditions in Q2 2025 as the current environment. The Monte Carlo simulation method is adopted to generate the credit loss distribution for each scenario.
2. Baseline scenario: No shock throughout the two-year period.
3. Stressed scenarios:
   Hong Kong GDP shock: Reductions in Hong Kong's real GDP by 3.2%, 3.6%, 9.3% and 9.4% respectively in each of the four consecutive quarters starting from Q3 2025.
   Property price shock: Reductions in Hong Kong's real property prices by an average of 12% in each of the four consecutive quarters starting from Q3 2025.
   Interest rate shock: A rise in real interest rates by 0.1, 0.9, 1.8 and 3.2 percentage points respectively in each of the four consecutive quarters starting from Q3 2025.
   Chinese Mainland GDP shock: An average year-on-year real GDP growth rate of 2% for the four consecutive quarters starting from Q3 2025.
   Corporate shock: Liquidity and earning shocks on listed corporates in Hong Kong are assumed on the basis that all short-term debts of the corporates could not be rolled over together with a reduction in revenue for the corporates by 50% year on year in the first year of the stressed period. The impact of these shocks on the median default probability of corporates is estimated to serve as an input for the stress-testing exercise.

Source: HKMA staff estimates.

5.4 *Risks and resilience*

As shown in the previous sections, the Hong Kong banking sector remained resilient during the review period. However, several downside risk factors, including uncertainties related to global trade policies and local economic development, will continue to pose challenges to the Hong Kong banking sector going forward.

First, heightened trade tensions and tariff policy uncertainty could undermine global growth prospects. While some progress has been made on bilateral trade agreements since the announcement of reciprocal tariffs by the US, the eventual effective tariff rates imposed by the US are expected to be higher than before, weighing on the export sector. Although recent trade performance was temporarily supported by frontloading export activities, the negative impact of higher tariffs may gradually take a toll on the economic performance of major US trading partners, particularly in Asia.

In addition, the heightened uncertainty has fuelled asset market volatility, as global investors have sought portfolio diversification across markets globally. The resulting fund flows contributed to significant exchange rate fluctuations across many economies, including those in the Asia Pacific region.[57] This trend, if it persists, could pose considerable challenges to banks' corporate loan borrowers with unhedged currency mismatches.

On the domestic front, while the Hong Kong's overall economic growth remained solid in the first half of 2025, the subdued performance of some sectors could put pressure on the loan repayment ability of corporate borrowers. For example, the import and export sectors are under pressure from trade uncertainty, while recovery in the retail sector may take longer than expected. Slow retail sector recovery, combined with pressures from various factors including interest rates and market demand and supply conditions, posed further headwinds to the subdued CRE market.

[57] See Chart 2.2 in Chapter 2.

Given the robust capital and liquidity positions, coupled with sufficient provisions, the Hong Kong banking sector is well positioned to withstand shocks arising from these downside risk factors.

From a medium-term perspective, the growing digitalisation of the financial industry has led to higher dependency of financial institutions on information communication and technology (ICT) third-party providers. This trend could have implications for systemic operational risks, as service disruptions of major third-party providers could affect the operations of a large number of financial institutions. Box 4 examines the extent of ICT third-party dependency in the financial industry in the Asia Pacific region, and discusses the potential financial stability implications.

The Countercyclical Capital Buffer for Hong Kong

The Countercyclical Capital Buffer (CCyB) is part of the internationally agreed Basel III standards and is designed to enhance the resilience of the banking sector against system-wide risks. This buffer can be reduced in times of a downturn, allowing banks to continue providing credit to support the real economy. The latest applicable jurisdictional CCyB for Hong Kong, announced on 18 October 2024, is 0.5%.[58]

In setting the CCyB, the Monetary Authority considered a series of indicators (Table 5.F), including an "indicative buffer guide" produced by the Initial Reference Calculator (IRC). The IRC is a metric that provides a guide for the CCyB by combining information from the gap between the ratio of credit-to-GDP and its long term trend, the gap between the ratio of residential property prices to rentals and its long term trend,[59] and the Positive Neutral CCyB.[60] The setting of the CCyB for Hong Kong is, however, not a mechanical exercise and the Monetary Authority will consider a broad range of reference indicators ("Comprehensive Reference Indicators") and all relevant information available in addition to the indicative buffer guide produced by the IRC.[61]

In the latest assessment based on the second quarter data of 2025 and the Positive Neutral CCyB according to the revised IRC formula,[62] the IRC signalled a CCyB of 1%. The projection based on all available data at the decision date suggests that the IRC would likely signal a CCyB of 1% when all relevant data for the third quarter of 2025 become available.

58 For details, see the Announcement of the CCyB to AIs in October 2024 (https://www.hkma.gov.hk/eng/key-functions/banking/banking-legislation-policies-and-standards-implementation/countercyclical-capital-buffer-ccyb/).

59 The credit-to-GDP gap is the gap between the ratio of credit to GDP and its long-term trend, while the property price-to-rent gap is the gap between the ratio of residential property prices to rentals and its long-term trend.

60 The Positive Neutral CCyB, currently at 1% in Hong Kong effective from 1 April 2024, is a floor for the IRC and helps ensure the availability of sufficient buffer against possible exogenous system-wide shocks. Under the Positive Neutral CCyB approach, authorities aim for a positive CCyB when risks are judged to be neither subdued nor elevated. See https://www.bis.org/publ/bcbs_nl30.htm for more information.

61 These include measures of bank, corporate and household leverage; debt servicing capacity; profitability, asset quality and funding conditions within the banking sector and macroeconomic imbalances.

62 Under the new CCyB framework effective from 1 April 2024, the IRC will be the higher of two constituent components: a Composite CCyB Guide based on the credit-to-GDP gap and the property price-to-rent gap, and a Positive Neutral CCyB that sets a floor for the IRC.

Taking into account the recent trends of the two primary gap indicators, which suggest that deleveraging and the property market correction may be continuing, the information drawn from the series of Comprehensive Reference Indicators and all relevant information available at the time of the decision in September 2025, the Monetary Authority considered it appropriate to maintain the CCyB at its current level.

Table 5.F
Information related to the Hong Kong jurisdictional countercyclical capital buffer

	18-Oct-24	Q1-2025	Q2-2025	Q3-2025
Announced CCyB	0.5%			
Date effective	18-Oct-24			
Initial Reference Calculator	1.00%	1.00%	1.00%	1.00%
Basel Common Reference Guide	0.00%	0.00%	0.00%	0.00%
Property Buffer Guide	0.00%	0.00%	0.00%	0.00%
Composite CCyB Guide	0.00%	0.00%	0.00%	0.00%
Positive Neutral CCyB	1.00%	1.00%	1.00%	1.00%
Primary gap indicators				
Credit/GDP gap	–35.2%	–37.9%	–39.6%	–37.7%
Property price/rent gap	–25.6%	–29.2%	–28.0%	–27.4%

Notes:
1. The values of all CCyB guides and their respective input variables are based on public data available prior to the corresponding review/announcement date, and may not be the most recently available as of each quarter end (refer to SPM CA-B-1 for explanations of the variables). If there is a CCyB announcement, the date of the announcement is shown at the top of the respective column. Otherwise, the quarter in which a CCyB review takes place (normally close to quarter end) is shown at the top of the column.
2. Following the revised CCyB framework effective from 1 April 2024, the 2.5% cap is applied on the Composite CCyB Guide instead of the Basel Common Reference Guide and Property Buffer Guide (refer to SPM CA-B-1 for details of the formula and explanation).

Source: HKMA.

Key performance indicators of the banking sector are provided in Table 5.G.

Table 5.G
Key Performance Indicators of the Banking Sector[1] (%)

	Jun 2024	Mar 2025	Jun 2025
Interest rates			
1-month HIBOR fixing[2] (quarterly average)	4.39	3.88	1.93
3-month HIBOR fixing (quarterly average)	4.65	3.94	2.58
BLR[3] and 1-month HIBOR fixing spread (quarterly average)	1.49	1.37	3.32
BLR and 3-month HIBOR fixing spread (quarterly average)	1.23	1.31	2.67
Composite interest rate[4]	2.62	2.07	1.26
		All AIs	
Balance sheet developments[5]			
Total deposits	+3.4	+3.5	+4.0
Hong Kong dollar	+1.0	+5.1	+1.8
Foreign currency	+5.5	+2.2	+5.9
Total loans	–0.9	+0.6	+1.9
Domestic lending[6]	+0.3	+0.5	+1.6
Loans for use outside Hong Kong[7]	–4.6	+1.1	+2.6
Negotiable instruments			
Negotiable certificates of deposit (NCDs) issued	+5.2	–0.1	+5.2
Negotiable debt instruments held (excluding NCDs)	+2.1	+4.0	+8.3
Asset quality			
As a percentage of total loans[8]			
Pass loans	96.18	95.77	95.87
Special mention loans	1.93	2.25	2.16
Classified loans[9] (gross)	1.89	1.98	1.97
Classified loans (net)[10]	1.09	1.22	1.22
Overdue > 3 months and rescheduled loans	1.52	1.63	1.58
Classified loan ratio (gross) of Mainland related lending[11]	2.78	2.27	2.16
Liquidity ratios (consolidated)			
Liquidity Coverage Ratio — applicable to category 1 institutions (quarterly average)	183.3	182.5	172.8
Liquidity Maintenance Ratio — applicable to category 2 institutions (quarterly average)	67.9	67.0	66.8
Net Stable Funding Ratio — applicable to category 1 institutions	142.3	143.0	143.9
Core Funding Ratio — applicable to category 2A institutions	174.7	186.8	191.1
		Retail banks	
Profitability			
Loan impairment charges as a percentage of average total assets (year-to-date annualised)	0.18	0.15	0.18
Net interest margin (year-to-date annualised)	1.51	1.51	1.47
Cost-to-income ratio (year-to-date)	38.3	35.9	36.7
		Surveyed institutions	
Asset quality			
Delinquency ratio of residential mortgage loans	0.10	0.13	0.13
Credit card lending			
Delinquency ratio	0.34	0.37	0.40
Charge-off ratio — quarterly annualised	2.33	2.43	2.57
— year-to-date annualised	2.23	2.43	2.48
		All locally incorporated AIs	
Capital adequacy (consolidated)			
Common Equity Tier 1 capital ratio	17.5	19.8	19.9
Tier 1 capital ratio	19.1	21.9	22.3
Total capital ratio	21.1	24.2	24.4
Leverage ratio	7.9	8.0	7.9

Notes:
1. Figures are related to Hong Kong offices only except where otherwise stated.
2. The Hong Kong Interbank Offered Rates are released by the Hong Kong Association of Banks.
3. With reference to the rate quoted by The Hongkong and Shanghai Banking Corporation Limited.
4. The composite interest rate is a weighted average interest rate of all Hong Kong dollar interest-rate-sensitive liabilities, which include deposits from customers, amounts due to banks, negotiable certificates of deposit and other debt instruments, and all other liabilities that do not involve any formal payment of interest but the values of which are sensitive to interest rate movements (such as Hong Kong dollar non-interest bearing demand deposits) on the books of banks. Further details can be found on the HKMA website.
5. Quarterly change.
6. Loans for use in Hong Kong plus trade finance.
7. Including "others" (i.e. unallocated).
8. Figures are related to all AIs' Hong Kong offices, as well as locally incorporated AIs' branches and major subsidiaries outside Hong Kong.
9. Classified loans are those loans graded as "substandard", "doubtful" or "loss".
10. Net of specific provisions/individual impairment allowances.
11. Figures are related to all AIs' Hong Kong offices, as well as locally incorporated AIs' Mainland branches and subsidiaries.

Box 4
Assessing information communication and technology third-party dependency of the financial industry in the Asia Pacific region

Introduction[63]

The growing digitalisation of the financial industry has led to a higher dependency of financial institutions (FIs) on information communication and technology (ICT) third-party service providers (henceforth referred to as third-party providers, TPPs). This trend could have implications for FI's systemic operational risks, as service disruptions to major TPPs could affect the operations of a large number of FIs.

Against this background, this box assesses two key issues. One is the extent of the dependency on TPPs of FIs in the Asia Pacific (APAC) region. The other is the quality of the cybersecurity risk management of TPPs, and the extent to which FIs would take this factor into account when selecting their TPPs.

Data on direct and indirect dependency on TPPs

There are two types of dependency on TPPs, direct and indirect dependencies. A direct dependency arises, for example, when a bank uses a cloud storage service provided directly from a TPP. If the TPP employs another third-party ICT hardware provider in its operations, then the bank has an indirect dependency on the ICT hardware provider via the business relationship between the cloud storage provider and the hardware providers. This analysis assesses both direct and indirect dependencies.[64]

We obtained data on FIs' dependency on TPPs based on customer-supplier business relationship data in S&P Capital IQ. We first collected from this data source a sample of FIs in the APAC region that have reported business relationship data from the data source. The sample included 1,145 FIs from four major types of companies in financial industry.[65] For each FI, we first identified their direct TPPs, and then further traced TPPs for all the direct TPPs to identify indirect TPPs for the sampled FIs in APAC. Our final sample contained 3,667 direct TPPs and 13,960 indirect dependencies with TPPs for the FIs in the APAC region. To more accurately identify TPPs deemed relevant to this study[66], we have employed generative artificial intelligence to analyse their business descriptions and industry classifications.

Chart B4.1 presents the results by the four major types of financial firms. The percentages shown in the blue and orange bars respectively represent the share of direct and indirect TPP dependencies of the four major types of FIs in the APAC region.

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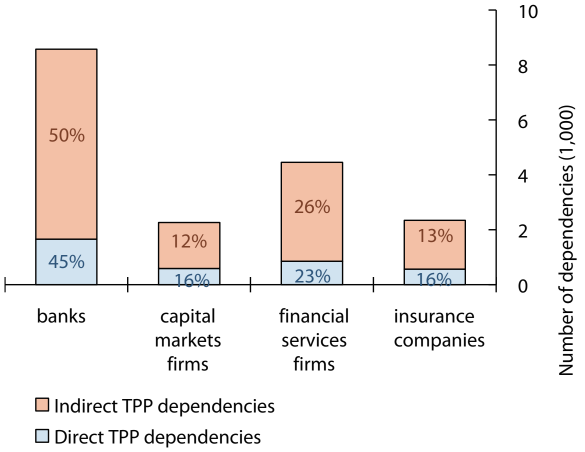
63 For details, see Wong et al. (2025): "Assessing the information communication and technology third-party dependencies of financial service industry in Asia Pacific: An analysis of business relationship data", *HKMA Research Memorandum*, forthcoming.

64 In this study, the dependency of FIs on TPPs is measured by the number of business relationships between the FI and TPP. In practice, the extent of a FI's dependency on a TPP can be influenced by several key factors, including the materiality of the TPP's services to FI's operations, the nature of services provided by the TPP, and the substitutability of a business relationship. However, these factors cannot be fully taken into account in our analysis due to data limitation. Given these caveats, the actual extent of FIs' dependencies on TPPs and the associated operational risk could differ from that found in this analysis.

65 Of the 1,145 APAC FIs, 33%, 24%, 27% and 16% of them are banks, capital market, financial services and insurance companies respectively.

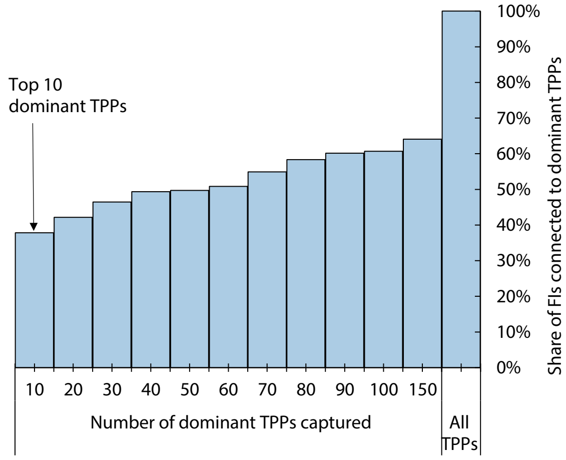
66 In principle, the chain of indirect dependency could be extended further. To keep our analysis tractable, the indirect dependency of FIs is only captured up to "fourth-party" service providers.

Chart B4.1:
Numbers of direct and indirect dependencies with TPPs by types of FIs in the APAC region



Source: HKMA staff estimates based on data from S&P Capital IQ.

Chart B4.2:
Cumulative share of FIs serviced by the most dominant TPPs



Source: HKMA staff estimates based on S&P Capital IQ business relationship data.

Chart B4.1 shows significant dependencies on TPPs among the four major types of FI in the APAC region, particularly banks. Notably, there is a larger degree of indirect dependency on TPPs than direct dependency. This finding suggests that indirect dependency of TPPs could be a significant channel for the transmission of operational risks to FIs in the APAC region.

Analysing the extent of concentration risk

A high concentration of FIs' dependency on a few dominant TPPs could potentially expose the financial system to significant systemic operational risks in the event of service disruption. To gauge such concentration risk, we calculated the cumulative share of FIs serviced by the most dominant TPPs, ranking the TPPs by the total number of FIs that rely on them directly or indirectly. Chart B4.2 reveals that the concentration risk is sizable. For instance, the top 10 most dominant TPPs service 38% of the sampled FIs in the APAC region, while the top 50 TPPs service half of our sampled FIs. While this simple analysis has not accounted for the criticality of services by these dominant TPPs due to data limitation, this result suggests that the potential systemic risks arising from disruptions of dominant TPPs could be widespread, a situation that merits close monitoring.

Do FIs select high-quality TPPs?

The analysis above indicates that FIs are subject to operational risks arising from both direct and indirect dependency on TPPs. Their risk levels are critically dependent on the quality of their TPPs' cybersecurity risk management.

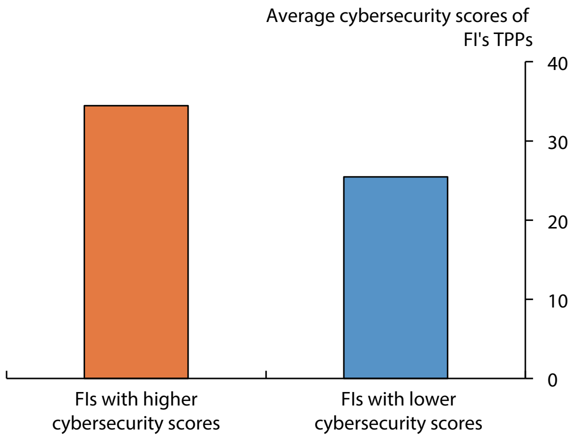
To assess the quality of TPPs' cybersecurity risk management, we employed the "Information Security/Cybersecurity & System Availability" score (denoted by the cybersecurity score), which is one component of the S&P Corporate Sustainability Assessment score, as a proxy for the quality of the TPPs' cybersecurity risk management.[67] The score ranges from 0 to 100, with a high score indicating a high quality of cybersecurity risk management. This score is also available for several sampled FIs.

[67] According to S&P, the firm-specific scores are calculated based on firms' responses to a tailored questionnaire. Specifically, the overall cybersecurity component score reflects several factors, including those related to the firm's governance, policy and management programs of information security.

There are two noteworthy findings. First, the group of TPPs selected by FIs in the APAC region tend to have better cybersecurity scores than those of the overall information technology sector, suggesting that FIs in the APAC region are generally selecting relatively higher-quality TPPs. For instance, both the average and median cybersecurity scores for our sampled TPPs were around 12 points higher than those for all firms in the IT sector.[68]

Secondly, FIs with higher cybersecurity scores tend to select TPPs with higher cybersecurity scores (Chart B4.3). This probably reflects that FIs with better cybersecurity risk management would have a stronger incentive and ability to select TPPs with better cybersecurity risk management, and thus reduce the potential operational risks arising from their dependency on TPPs.

Chart B4.3:
Average cybersecurity scores of TPPs for FIs with different levels of cybersecurity risk management



Note: FIs with higher cybersecurity scores refer to those FIs with scores above the median, while FIs with lower scores refer to those with scores equal to or below the median.
Source: HKMA staff estimates.

Conclusion

The trend of digitalisation in the financial industry has led to FIs having significant dependencies on ICT TPPs. Our findings show that FIs in the APAC region are exposed to operational risks arising from both their direct and indirect dependency on TPPs.

We also observed that there are several dominant TPPs to provide services to a large number of FIs in the region. The potential for systemic risks arising from disruptions to these dominant TPPs warrants close monitoring.

Finally, our analysis reveals a strong correlation between the quality of FIs' cybersecurity risk management and that of their TPPs. This finding underscores the importance of FIs enhancing their cybersecurity risk management.

To this end, the HKMA has been providing industry guidance to help banks in Hong Kong to put in place effective cybersecurity measures covering their own operations as well as linkages with TPPs.[69]

68 The average cybersecurity scores of TPPs are derived based on the sample of TPPs with available cybersecurity score.

69 See the Supervisory Policy Manual modules of the HKMA, including "SPM TM-C-1 Supervisory Approach on Cyber Risk Management", "SPM OR-1 Operational Risk Management", "TM-G-1 General Principles for Technology Risk Management" and "OR-2 Operational Resilience".

Glossary of terms

Aggregate Balance
The sum of balances in the clearing accounts and reserve accounts kept with the central bank. In Hong Kong, this refers to the sum of the balances in the clearing accounts kept with the HKMA. The Aggregate Balance is a part of the Monetary Base.

Authorized Institution (AI)
An institution authorized under the Banking Ordinance to carry on the business of taking deposits. Hong Kong maintains a Three-tier Banking System, which comprises licensed banks, restricted licence banks and deposit-taking companies.

Best Lending Rate
A benchmark interest rate that banks use to price loans. In Hong Kong, the Best Lending Rate is used as a base for quoting interest rates on mortgage loans.

Certificates of Indebtedness (CIs)
Certificates issued by the Financial Secretary under the Exchange Fund Ordinance, to be held by note-issuing banks as cover for the banknotes they issue.

Composite Consumer Price Index
The main consumer price index (CPI) for Hong Kong. The Census and Statistics Department compiles three separate CPI series relating to households in different expenditure ranges. The CPI(A) relates to about 50% of households in the relatively low expenditure range; the CPI(B) relates to the next 30% of households in the medium expenditure range; and the CPI(C) relates to the next 10% of households in the relatively high expenditure range. The Composite CPI is compiled based on the aggregate expenditure pattern of all of the above households taken together.

Composite Interest Rate
The composite interest rate is a weighted average interest rate of all Hong Kong dollar interest-rate-sensitive liabilities, which include deposits from customers, amounts due to banks, negotiable certificates of deposit and other debt instruments, and all other liabilities that do not involve any formal payment of interest but the values of which are sensitive to interest rate movements (such as Hong Kong dollar non-interest bearing demand deposits) on the books of banks. Data from retail banks, which account for the majority of the Hong Kong dollar deposits in the banking sector, are used in the calculation. It should be noted that the composite interest rate represents only average interest expenses. There are various other costs involved in the making of a loan, such as operating costs (e.g. staff and rental expenses), credit cost and hedging cost, which are not covered by the composite interest rate.

Convertibility Undertaking (CU)
An undertaking by a central bank or Currency Board to convert domestic currency into foreign currency and vice versa at a fixed exchange rate. In Hong Kong, the HKMA operates Convertibility Undertakings on both the strong side and the weak side of the Linked Rate of 7.80. Under the strong-side Convertibility

Undertaking, the HKMA undertakes to buy US dollars from licensed banks at 7.75. Under the weak-side Convertibility Undertaking, the HKMA undertakes to sell US dollars at 7.85. Within the Convertibility Zone between 7.75 and 7.85, the HKMA may choose to conduct market operations consistent with Currency Board principles with the aim of promoting the smooth functioning of the money and foreign exchange markets.

Convertibility Zone

The Hong Kong dollar-US dollar exchange rate band, defined by the levels of the strong- and weak-side Convertibility Undertakings, within which the HKMA may choose to conduct market operations consistent with Currency Board principles.

Exchange Fund Bills and Notes (EFBNs)

Debt instruments issued by the HKMA for the account of the Exchange Fund. These instruments are fully backed by the foreign reserves. The HKMA has undertaken that new Exchange Fund paper will only be issued when there is an inflow of funds, thus enabling the additional paper to be fully backed by the foreign reserves. Since 1 April 1999, interest payments on Exchange Fund paper have been allowed to expand the Monetary Base. Additional Exchange Fund paper is issued to absorb such interest payments. This is consistent with the Currency Board discipline since interest payments on Exchange Fund paper are backed by interest income on the US dollar assets backing the Monetary Base.

Monetary Base

A part of the monetary liabilities of a central bank. The Monetary Base is defined, at the minimum, as the sum of the currency in circulation (banknotes and coins) and the balance of the banking system held with the central bank (the reserve balance or the clearing balance). In Hong Kong, the Monetary Base comprises Certificates of Indebtedness (for backing the banknotes issued by the note-issuing banks), government-issued currency in circulation, the sum of the balances of the clearing accounts kept with the HKMA (the Aggregate Balance), and Exchange Fund Bills and Notes.

Money supply

The total stock of money available in the economy. Hong Kong has three measures of money supply: Money Supply definition 1 (M1) is defined as the sum of legal tender notes and coins held by the public plus customers' demand deposits placed with licensed banks. Money Supply definition 2 (M2) is defined as M1 plus customers' savings and time deposits with licensed banks plus negotiable certificates of deposit (NCDs) issued by licensed banks held outside the banking sector. Money Supply definition 3 (M3) is defined as M2 plus customers' deposits with restricted licence banks and deposit-taking companies plus NCDs issued by these institutions held outside the banking sector.

Nominal and Real Effective Exchange Rate (NEER and REER)

An indicator of the overall exchange rate value of the Hong Kong dollar against a basket of currencies of Hong Kong's principal trading partners. The nominal effective exchange rate (NEER) is a weighted average of the exchange rates between Hong Kong and its principal trading partners. The real effective exchange rate (REER) is obtained by adjusting the NEER for relative movements in the seasonally adjusted consumer price indices of those selected trading partners.

Abbreviations

1m moving average	One-month moving average
3m moving average	Three-month moving average
3m-on-3m	Three-month-on-three-month
AB	Aggregate Balance
AEs	Advanced economies
AIs	Authorized institutions
AMCM	Monetary Authority of Macao
APAC	Asia-Pacific
ASEAN	Association of Southeast Asian Nations
AU	Australia
AUD	Australian dollar
AUM	Assets under Management
BAU	Business-as-usual
bn	Billion
BLR	Best Lending Rate
bps	basis points
CAPEX	Capital expenditure
CAR	Capital Adequacy Ratio
CIES	Capital Investment Entrant Scheme
CCPI	Composite Consumer Price Index
CCDC	China Central Depository & Clearing Co., Ltd.
CCyB	Countercyclical capital buffer
CDs	Certificates of deposits
CET1	Common equity tier-one
CEWC	Central Economic Work Conference
CFETS	China Foreign Exchange Trade System
CFR	Core Funding Ratio
CIBM	China Interbank Bond Market
CIs	Certificates of Indebtedness
CIES	Capital Investment Entrant Scheme
CL	Confidence Level
CLR	Classified Loan Ratio

CMBS	Commercial mortgage-backed securities
CMU	Central Moneymarkets Unit
CN	Chinese Mainland
CNH	Offshore renminbi in Hong Kong
CNY	Onshore renminbi
COVID	Coronavirus Disease
CPI	Consumer Price Index
CRE	Commercial real estate
C&SD	Census and Statistics Department
CU	Convertibility Undertaking
DaR	Debt-at-risk
DBGS	Digital Bond Grant Scheme
DI	Direct investment
DID	Difference-in-differences
DSR	Debt-servicing ratio
DTD	Distance-to-default
DW	Discount Window
EA	Euro area
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation and amortization
ECB	European Central Bank
EFBNs	Exchange Fund Bills and Notes
EM	Emerging-market
EMEs	Emerging Market Economies
EPS	Earnings per share
ETFs	Exchange traded funds
EU	European Union
EUR	Euro
FDI	Foreign direct investment
Fed	Federal Reserve

FI	Financial Institution
FINI	Fast Interface for New Issuance
FOMC	Federal Open Market Committee
FPS	Faster Payment System
FX	Foreign exchange
GBA	Guangdong-Hong Kong-Macao Greater Bay Area (GBA)
GBP	British Pound Sterling
GDP	Gross Domestic Product
GEM	Growth Enterprise Market
GFC	Global Financial Crisis
GHG	Greenhouse gases
GICS	Global Industry Classification Standard
GVCs	Global value chains
HIBOR	Hong Kong Interbank Offered Rate
HK	Hong Kong
HKD	Hong Kong dollar
HKEX	The Hong Kong Exchanges and Clearing Limited
HKFRS	Hong Kong Financial Reporting Standard
HKMA	Hong Kong Monetary Authority
HKMC	Hong Kong Mortgage Corporation Limited
HKPC	Hong Kong Productivity Council
HK$M3	Hong Kong dollar broad money supply
HKSAR	Hong Kong Special Administrative Region
HSCEI	Hang Seng China Enterprises Index
HSI	Hang Seng Index
IBPS	Internet Banking Payment System
ICR	Interest Coverage Ratio
ICT	Information communication and technology
ICSD	International Central Securities Depository
ID	Indonesia
IDR	Indonesian Rupiahs

I/E	Import/Export
IFC	International Finance Corporation
IIF	Institute of International Finance
IMF	International Monetary Fund
IPO	Initial Public Offering
IRC	Initial Reference Calculator
IT	Information technology
JP	Japan
JPY	Japanese Yen
KH	Cambodia
KR	South Korea
KRW	South Korean Won
LCR	Liquidity Coverage Ratio
LIBOR	London Interbank Offered Rate
LERS	Linked Exchange Rate System
lhs	Left-hand side
LMR	Liquidity Maintenance Ratio
LPR	Loan Prime Rate
LR	Leverage Ratio
LTD	Loan-to-deposit
LTV	Loan-to-value
LWB	Labour and Welfare Bureau
mn	Million
MDBs	Multilateral Development Banks
ML	Machine Learning
MMFs	Money market funds
MOU	Memorandum of Understanding
MVP	Minimum viable product
MIP	Mortgage Insurance Programme
MRF	Mutual Recognition of Funds
MY	Malaysia

MYR	Malaysian ringgit
MSCI	Morgan Stanley Capital International
NASDAQ	National Association of Securities Dealers Automated Quotations
NBS	National Bureau of Statistics of China
NCD	Negotiable certificate of deposit
NEER	Nominal effective exchange rate
NFCs	Non-financial corporates
NFRA	National Financial Regulatory Administration
NIM	Net interest margin
NLP	Natural language processing
NPL	Non-performing loan
NSFR	Net Stable Funding Ratio
NZ	New Zealand
NZD	New Zealand dollar
OECD	Organisation for Economic Corporation and Development
PH	The Philippines
PHP	Philippine Pesos
OIS	Overnight indexed swap
OTC	Over-the-counter
p.a.	Per annum
P2P	Peer-to-peer
PBoC	People's Bank of China
PD	Probability of default
PH	The Philippines
PMI	Purchasing Managers' Index
POEs	Private-owned enterprises
QFI	Qualified Foreign Investor
qoq	Quarter-on-quarter
qoqa	Quarter-on-quarter annualised
R&VD	Rating and Valuation Department

REER	Real effective exchange rate
Repo	Repurchase operation
rhs	Right-hand side
RMB	Renminbi
RML	Residential mortgage loan
ROA	Return on assets
ROE	Return on equity
RRR	Required reserve ratio
RTGS	Real Time Gross Settlement
RWA	Risk-weighted assets
SAFE	State Administration of Foreign Exchange
SDR	Special Drawing Rights
SFC	The Securities and Futures Commission
SFGS	SME Financing Guarantee Scheme
SG	Singapore
SGD	Singapore dollar
SHIBOR	Shanghai Interbank Offered Rate
SMEs	Small and medium-sized enterprises
SOEs	State-owned enterprises
SOFR	Secured Overnight Financing Rate
SPM	Supervisory Policy Manual
STCs	Specialist Technology Companies
S&P 500	Standard & Poor's 500 Index
TFP	Total factor productivity
TH	Thailand
THB	Thai Baht
th	Thousands
tn	trillion
TNA	Total net assets
TPP	Third-party service provider
TWI	Trade Weighted Index

UK	United Kingdom
UNCITRAL	United Nations Commission on International Trade Law
UNeDocs	United Nations electronic Trade Documents
US	United States
USD	US dollar
VAR	Vector Autoregression
VaR	Value-at-risk
VHSI	HSI Volatility Index
VIX	Chicago Board Options Exchange Market Volatility Index
VN	Vietnam
VND	Vietnamese dong
wk	Week
WMP	Wealth management product
yoy	Year-on-year

Full text of this Report is available on the HKMA website at **www.hkma.gov.hk**.

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