

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.

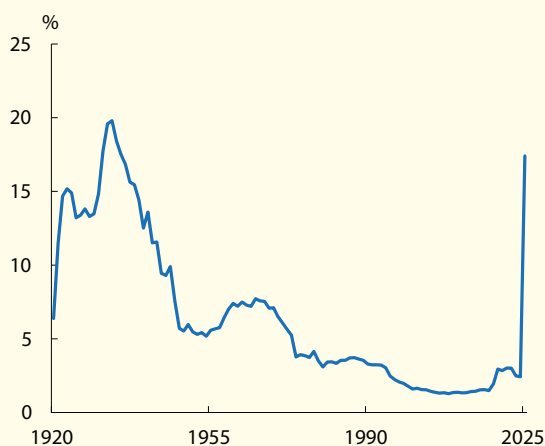
The potential for tariffs to drive inflation has prompted the Fed to adopt a cautious approach to rate cuts, with the policy rate remaining unchanged until a 25-basis-point cut in September. By contrast, the Bank of Japan may consider increasing its policy rate in the future.

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



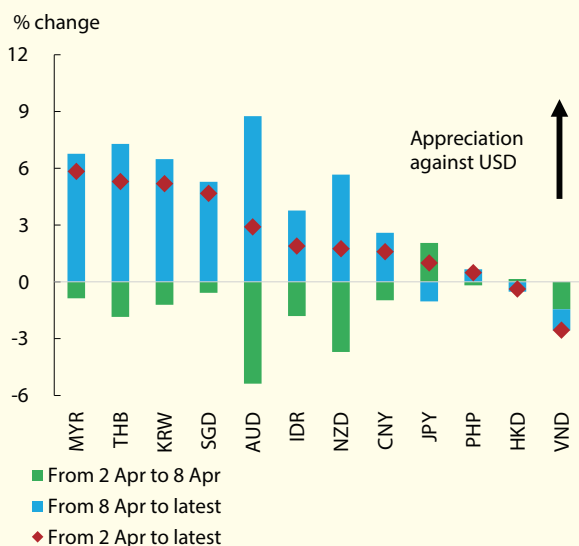
Note: The estimated average tariff rate is based on the tariff implemented as of 4 September 2025 pre-import-substitution. The actual tariff rate may be lower as a result of import substitution.

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.

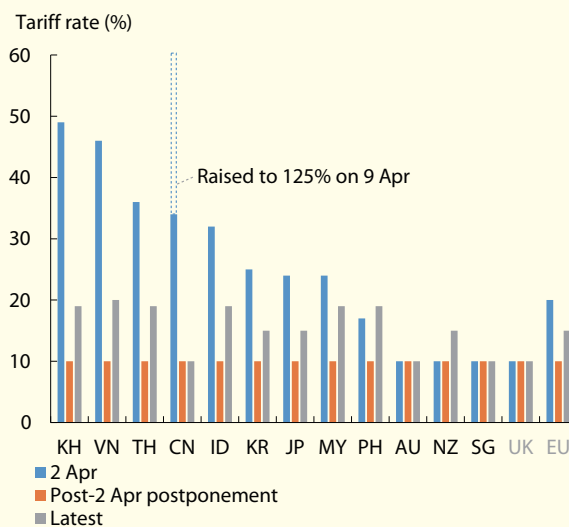
Chart 2.2
Asia Pacific: Exchange rate movements against the USD since 2 April



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.

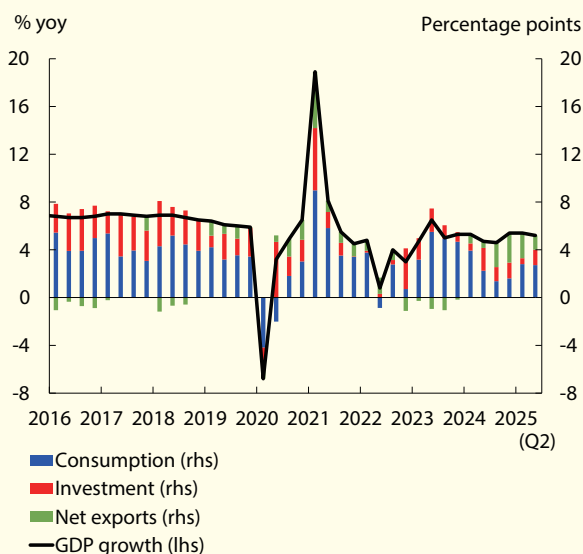
¹ So far, the US has only reached trade deals with Chinese Mainland, the European Union, Indonesia, Japan, Pakistan, the Philippines, South Korea, the United Kingdom and Vietnam.

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.

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.

In the second half of 2025, the Mainland economy is anticipated to grow further due to continued policy support⁴. This near-term economic outlook is subject to a number of uncertainties and risks, which include additional US tariffs and their repercussions on global trade⁵, 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.

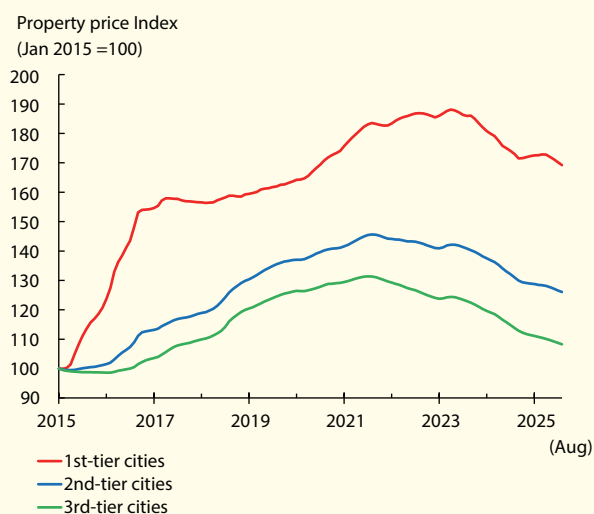
Asset and credit markets

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).

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.

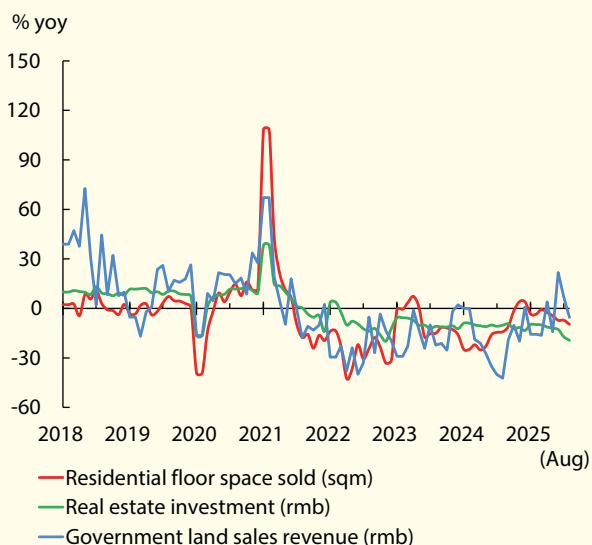
⁵ Indeed, while Chinese Mainland fared well under Trump's first presidency by diversifying its export destinations, increased protectionism elsewhere, and higher US tariffs facing connector economies in relation to trans-shipments have raised concerns over the trade outlook.

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

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.

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.

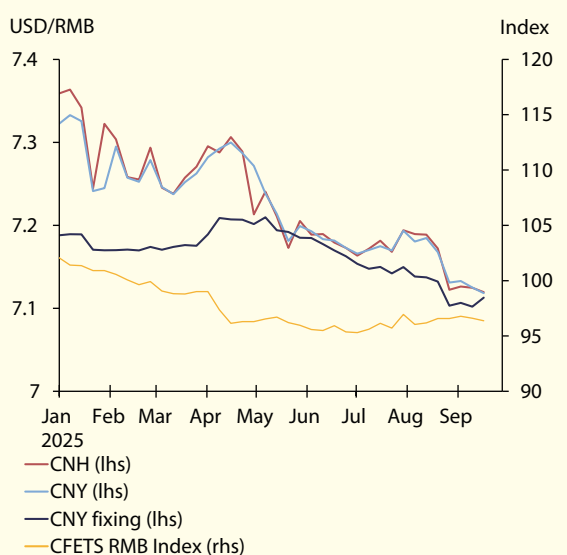
Exchange rate and fund flow indicators

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

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

Introduction⁸

As the global financial system becomes increasingly digitalised and interconnected, a sharp rise in the frequency and severity of cyber incidents⁹ 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.

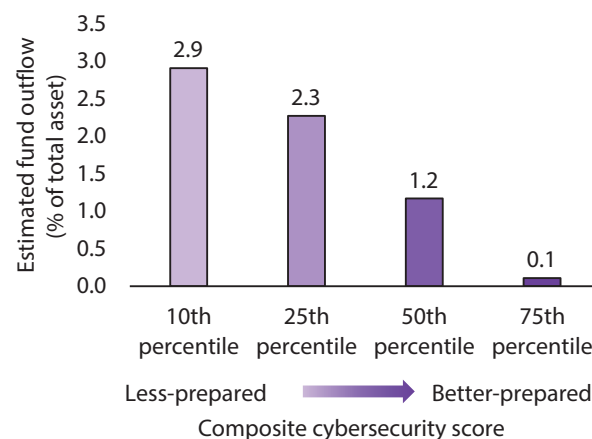
1) *The magnitude of “cyber runs” and the mitigating impact of cybersecurity preparedness*

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 year¹⁵, we conducted a regression analysis using a fixed effects probit model.

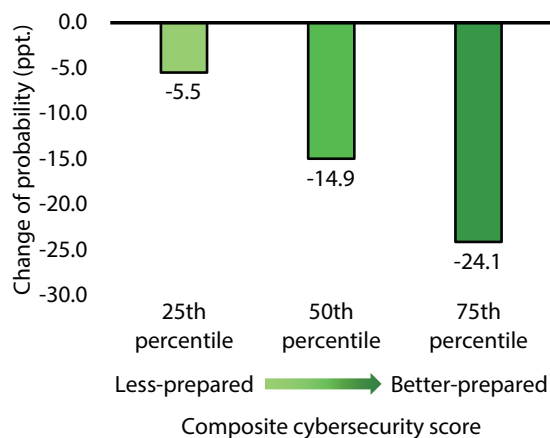
Using less-prepared fund managers (i.e., those with composite cybersecurity scores in the 10th percentile) as the baseline, the findings indicate that when the composite cybersecurity score increases, the probability of a cyber incident occurring is estimated to decrease substantially

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 50th 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 Macroeconomic 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.

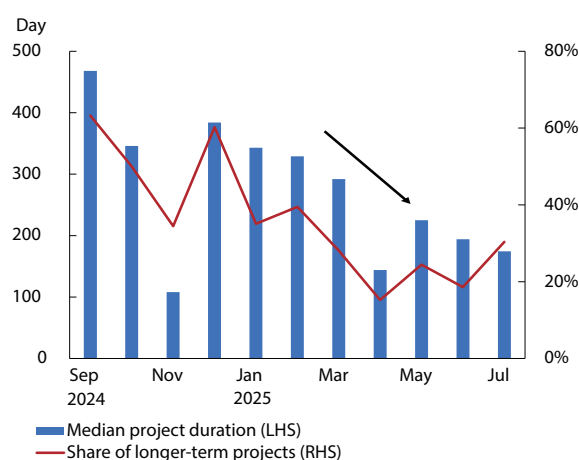
This box examines recent trends and developments relating to FDI into the region and discusses their policy implications. Since official FDI data is typically released infrequently and belatedly, we have leveraged Moody's Orbis dataset of cross-border FDI projects, sourced from global announcements. 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 region¹⁸ 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.

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

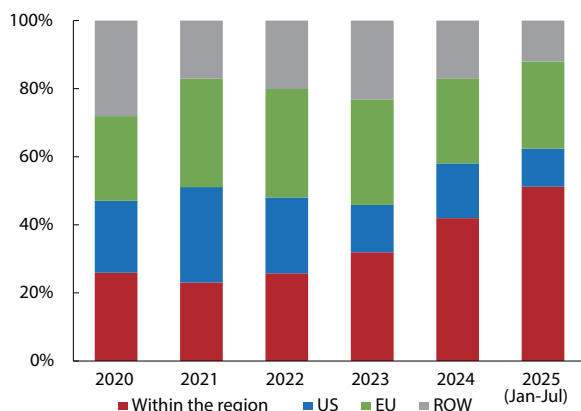
¹⁷ For more details, see Li et al. (2025) "The impact of climate-related factors on the greenfield foreign direct investment", *HKMA Research Memorandum 08/2025*. It should be noted that our analysis here focuses on the number of FDI projects rather than their investment value due to data availability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

As share of total manufacturing FDI projects



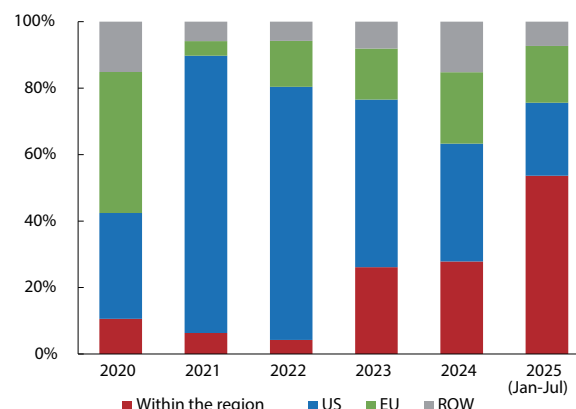
Notes:

- "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.
- 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

As share of total green FDI projects



Notes:

- "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.
- 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 research¹⁹ 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).