1. Summary and overview

The global economy entered 2022 on a soft footing but inflationary pressure continued to build, particularly in the US. Looking ahead, the global economic outlook is subject to significant uncertainty, including the risk of a major virus outbreak as well as stronger-than-expected monetary policy tightening if US inflation proves more persistent and broad-based than expected. Any aggressive tightening of monetary policy by the US Federal Reserve (Fed), and hence global financial conditions, would weigh on the recovery of the more fragile emerging market economies (EMEs). More recently, the outbreak of military conflict between Russia and Ukraine could entail significant spillovers to the global economy through trade and financial channels and could complicate the global monetary policy outlook.

The Hong Kong dollar exchange rate softened during the review period while continuing to trade in a smooth and orderly manner. With total deposits increasing moderately during the period, there was no notable sign of outflows from the Hong Kong banking system. For 2021 as a whole, total bank credit recorded accelerated growth. Meanwhile, the residential property market has softened somewhat since mid-2021.

In the near term, the rapid spread of the Omicron variant could threaten the ongoing economic recovery. This, coupled with risks of a faster-than-expected pace of US monetary policy normalisation, will likely pose challenges to banks' credit risk management. Banks should remain vigilant and carefully assess the impacts of these risk factors on the asset quality of their loan portfolios.

The external environment

The global economy entered 2022 on a soft note with slowing momentum since late 2021, due to the spread of the highly contagious Omicron variant that led to increased mobility restrictions worldwide, as well as persistent supply bottlenecks that continued to weigh on production. Meanwhile, global inflationary pressure continued to build and has broadened out across a wide range of goods and services in major advanced economies (AEs), particularly the US, amid demand-supply imbalances and labour shortages. More recently, surging commodity prices and heightened financial market volatility amid the military conflict between Russia and Ukraine threaten to put further upward pressure on global inflation, and lead to an undesirable tightening of global financial conditions that could complicate the global monetary policy outlook.

Looking ahead, the global economic outlook is subject to significant uncertainty. In the near term, renewed lockdowns and a deterioration in supply bottlenecks cannot be ruled out in the event of a major virus outbreak. Amid growing risks that US inflation could prove more

persistent and broad-based than expected, the Fed has turned hawkish, accelerating the timetable for tapering asset purchases and rate hikes, as well as initiating discussions on balance sheet reduction. In the event the Fed has to tighten monetary policy aggressively, global financial conditions may also tighten, resulting in a deterioration in the debt-servicing ability of borrowers, and disruptive capital outflows that would weigh on the recovery of the more fragile EMEs. More recently, the military conflict between Russia and Ukraine could risk driving up global commodity prices durably, aggravating shortages in industrial supplies and fuelling financial market volatility. Relatedly, higher market volatility could also trigger redemption pressure on open-ended funds (OEFs), increasing their liquidity risk. Box 1 studies whether swing pricing, a liquidity management tool for OEFs, could reduce OEFs' liquidity risk in times of market stress, and discusses potential limitations of this tool.

In emerging Asia,¹ economic recovery continued in the second half of 2021, though the re-imposition of stringent containment measures in Southeast Asian economies dented their momentum in the third quarter while the regional technology goods exporters (i.e. South Korea and Singapore) continued to benefit from strong global demand. Although market consensus points to a broader-based recovery in emerging Asia in 2022, the region's near-term economic outlook is facing multiple headwinds. First, worries over possible new virus variants lingered, especially for regional economies with lower vaccination rates and tight public hygiene resources. Second, the imminent Fed policy normalisation could trigger capital outflows and currency depreciation pressures in the region, and economies that still need to maintain an accommodative monetary policy will face the difficult trade-off between containing outflow pressures on one hand and supporting growth on the other. Third, the trade growth outlook is clouded by the slowdown in major economies as well as the potential shift in demand away from goods towards services amid the gradual re-opening of the global economy. Fourth, the Russia-Ukraine conflict has raised commodity prices which would feed through to the region's inflation while at the same time dragging consumption. These, together with the rise in global economic uncertainty, would complicate the monetary policy normalisation in the region. In particular, regional economies with weak growth momentum and energy-sensitive inflation would face more difficult trade-offs. To rebuild a more sustainable and resilient growth model in the long run, investors need to put more weight on environmental, social and governance factors in their investment metrics. Box 2 studies whether stock returns are sensitive to changes in perceived climate risks, and how such sensitivity is affected by firms' environmental performance.

In Mainland China, economic growth moderated in the second half of 2021 amid new waves of COVID-19 outbreaks, the power crunch, as well as tightening measures applied to the property market. Going forward, the Mainland economy may continue to face downward pressures in the near term, stemming from the ongoing property market downturn and Omicron outbreaks. As a result, Mainland authorities have set growth stabilisation as the top priority for this year, and a series of fiscal and monetary supportive measures have been introduced. Meanwhile, the total amount of onshore bond defaults decreased in the second half of 2021, along with reduced defaults of state-owned enterprises (SOEs). Box 3 discusses whether SOE bond pricing had improved in recent years amid increased SOE defaults. The overall risk in the banking sector remained manageable as Mainland banks, especially systemically important banks, have limited exposures to developer loans, as well as relatively low non-performing loan (NPL) ratios and high loan loss provisions.

¹ In this report, emerging Asia refers to the following six economies: Indonesia, Malaysia, the Philippines, Singapore, South Korea and Thailand.

The domestic economy

Hong Kong's economic recovery continued in the second half of 2021, albeit at a moderated pace compared to the first half. Sequentially, the seasonally-adjusted real gross domestic product (GDP) grew mildly as merchandise exports and private consumption were supported by sustained global economic recovery, improved local labour market conditions and the boost from the Government's Consumption Voucher Scheme. Year on year, the economy expanded by 5.1% in the second half of 2021 compared to 7.8% in the first half. For 2021 as a whole, the economy resumed positive annual growth of 6.4% for the first time since 2019.

Stepping into 2022, a new wave of local infections and the resultant tightening of social distancing measures have exerted pressure on domestic economic activities. In response, the Government introduced the fifth and sixth rounds of the Anti-epidemic Fund and additional countercyclical measures under the 2022/23 Budget to help support the economy.² To provide cash flow support, the 100% Personal Loan Guarantee Scheme and various guarantee products under the SME Financing Guarantee Scheme (SFGS) have been enhanced through higher maximum loan amounts and longer application and repayment periods. The HKMA, together with the banking sector, also extended the Pre-approved Principal Payment Holiday Scheme to the end of October 2022.³ The Scheme will also offer a one-year partial principal repayment option to the customers and the arrangement is also applicable to loans under SFGS.

For 2022 as a whole, Hong Kong's economic recovery is expected to continue, although at a slower pace compared to 2021, partly reflecting moderating global growth amid the lingering pandemic and a less favourable base effect. Specifically, Hong Kong's exports of goods will continue to benefit from the global economic expansion. The various capital works and infrastructure projects to be taken forward by the Government will also lend support to the economy. The Government forecasts real GDP growth for 2022 in the range between 2.0% and 3.5%, and the growth estimates by international organisations and private sector analysts average 1.6%. That said, the strength and speed of the economic recovery are subject to a number of uncertainties and risks as discussed above, especially those surrounding the pandemic and the US monetary policy normalisation path.

Alongside the economic recovery, the labour market further improved in the second half of 2021, with the seasonally-adjusted unemployment rate declining to 3.9% at yearend. Total employment also rebounded, albeit still below its pre-pandemic level. In early 2022, official data show that pressures on the labour market re-surfaced amid the new wave of local infections. Additionally, fewer new vacancies have become available, as suggested by the declining number of online job advertisements. In the near term, the new wave of local infections and the tightening of anti-epidemic restrictions will exert further pressures on the local labour market (especially the contactintensive sectors). Further out, labour market conditions will depend on the epidemic situation and the pace of the domestic economic recovery.

Local inflationary pressures have generally increased in recent months, but remained moderate. Year on year, the underlying consumer price inflation edged up to 1.1% and 1.2% in the third and fourth quarters of 2021

² These measures include, among others, a one-off provision of HK\$10,000 electronic consumption vouchers to each eligible resident and tax deduction for domestic rental expenses. The Government estimates that these countercyclical measures, together with the spending in infrastructure projects and other items, will boost economic growth by around 3 percentage points.

³ The HKMA also announced on 11 January 2022 a further 90-day repayment deferment for trade facilities under the Pre-approved Principal Payment Holiday Scheme.

respectively, and stayed at 1.2% in January 2022.⁴ Inflation momentum, as measured by the annualised three-month-on-three-month underlying inflation rate, also picked up in recent months, in part driven by the rise in prices of dining out and some energy-related items. For the outlook, alongside rising import prices and the pandemic-induced logistic disruptions, local inflation is expected to edge up in the near term, but should stay broadly in check due to soft rentals and mild local labour cost pressures. Market consensus forecasts the headline inflation rate for 2022 to reach 2.4%. The Government projects the headline inflation rate to be 2.1% and the underlying inflation rate to be 2.0% in 2022.

Monetary conditions and capital flows

The Hong Kong dollar has eased gradually against the US dollar since September 2021, amid risk-off sentiment in the local stock market. While the Hong Kong dollar slightly rebounded once in October, it lost momentum due to lackluster net buying interest from the southbound Stock Connects, as well as the expectation of a stronger US dollar fueled by the Fed's upcoming monetary policy normalisation. Overall, the Hong Kong dollar remained in the strong side of the Convertibility Zone for most of the time and continued to trade in a smooth and orderly manner. With total deposits increasing moderately during the review period, there was no notable sign of outflows from the Hong Kong banking system.

Hong Kong's interbank market also continued to trade in a smooth and orderly manner. With ample interbank liquidity, Hong Kong Interbank Offered Rates stayed low during the period. The average lending rate for new mortgages increased slightly from 1.48 in July 2021 to 1.56% in January 2022. The Best Lending Rates of major retail banks stayed unchanged between 5.00% and 5.50%.

The offshore renminbi banking business continued to flourish. In particular, Hong Kong's offshore renminbi (CNH) liquidity pool witnessed steady growth, with the total outstanding amount of renminbi customer deposits and certificates of deposit rising to RMB1,113.5 billion at the end of January 2022. While the outstanding amount of renminbi loans decreased, renminbi trade settlement continued to expand steadily. The average turnover of the renminbi Real Time Gross Settlement system in 2021 rose to RMB1,522.6 billion. Looking ahead, with Hong Kong's efficient financial infrastructure and the two-way Stock, Bond and Cross-boundary Wealth Management Connects, Hong Kong's offshore renminbi business is expected to benefit from the continuing liberalisation of the Mainland's capital account, rising demand for renminbi assets from international investors, as well as deepening regional economic and financial cooperation under the Belt and Road and the Guangdong-Hong Kong-Macao Greater Bay Area initiatives.

Asset market

On the back of global economic recovery and strong corporate earnings supported by government stimulus from monetary and fiscal policies, major equity markets continued to rally in the final quarter of 2021, resulting in the MSCI World Index hitting an all-time high of 3,262 points on 4 January 2022. However, major equity markets have consolidated since January 2022 due to rising concerns over the tightening stance of major central banks in advanced economies amid the surging inflation risk, sharp rise in commodity prices and the escalating Russian-Ukraine conflict.

⁴ Inclusive of the effects of the Government's relevant one-off relief measures, the year-on-year headline inflation rate was 2.3% and 2.0% in the third and fourth quarters of 2021, higher than an average of 1.6% in the first and second quarters of 2021.

In contrast to the continued rally in major equity markets, the Hong Kong stock market remained subdued in the final quarter of 2021, mainly affected by sharp declines in the technology stocks. After staging a rebound in early 2022, the development of pandemic situation in Hong Kong and the escalating Russian-Ukraine conflict sent the Hang Seng Index (HSI) to around 2-year low of 22,713 at the end of February.

Supported by steady issuances, both the Hong Kong dollar and CNH debt markets continued to grow in the second half of 2021. In tandem with the rise of the 10-year US Treasury yield amid accelerated inflation in the US, both sovereign and non-sovereign Hong Kong dollar bond yields increased in the review period. Supported by ample global liquidity and the introduction of two new fee waivers for Hong Kong-listed fixed income exchange traded funds and money market exchange traded funds, Hong Kong has continued to record bond fund inflows since September 2021.

For the near term, both the local equity and debt markets will remain susceptible to uncertainties surrounding the sustainability of the global economic recovery, the development of the pandemic under the rapid spread of the Omicron variant, rising energy prices, the monetary policies of major central banks in response to the resurgent inflation rate, as well as the escalating Russian-Ukraine conflict. For the CNH debt market, while the valuation of renminbi fixedincome assets will benefit from the prospective monetary policy divergence between the Mainland and other major advanced economies, the concerns over the rising renminbi bond defaults may still linger, which could dampen investors' demand. In the medium term, local debt market development is supported by a number of policy initiatives including the southbound Bond Connect and further possible issuance of renminbi municipal government bonds in Hong Kong.

The residential property market has softened somewhat since mid-2021, due in part to weakened asset market sentiment and the new wave of local infections. Transaction volume tapered off from a high recorded in the first half of 2021. After reaching a recent peak in September 2021, secondary-market housing prices also moderated by 1.2% in the final quarter. For 2021 as a whole, housing prices still rose by 3.6% thanks to the visible increase in prices in the first half of the year. In early 2022, recent market data show that the housing market continued to soften.

In the current challenging economic environment, the macro-prudential measures implemented by the HKMA since 2009 have helped contain household leverage and strengthen banks' risk management for mortgage loans, thereby improving their resilience to potential interest rate or property market shocks. Box 4 investigates the prevalence of residential mortgage loans offered by non-bank institutions using transactional big data, and discusses the related policy implications.

Looking ahead, the residential property market is subject to a number of uncertainties and risks as discussed previously. Domestically, the new wave of local infections and the re-tightening of social distancing measures could drag on the economic recovery and dampen the housing demand. Externally, the uncertainty over the Fed's policy interest rate outlook will continue to affect housing market sentiment. Over the longer term, the outlook for the housing market will depend on the supply-demand gap. The Government projects that private housing supply will remain high in the coming years.⁵

The non-residential property market showed signs of stabilisation in the second half of 2021 following some improvement in the first half.

According to the Rating and Valuation Department's projections, on average more than 22,000 private residential flats a year will be completed in 2022–2023, higher than the annual average of the past five years.

However, while prices and rentals of industrial properties have generally risen to their prepandemic peaks, those of retail and office spaces are still below their peaks. The outlook for the non-residential property market will hinge on developments in the latest infection wave, as well as the evolving economic environment. For example, amid the new wave of local infections, tighter social distancing measures and the resultant weaker business sentiment could suppress the demand for commercial properties, especially office space in view of greater supply in the coming years. On the other hand, a resumption of quarantine-free travel with the Mainland may bode well for the non-residential property market.

Banking sector performance

Retail banks registered thinner profits in the second half of 2021 due to lower net-interest and non-interest incomes and higher operating expenses. The aggregate pre-tax operating profits of retail banks fell by 16.1% in the second half of 2021, compared with the same period in 2020. As a result, the return on assets fell to 0.50% in the second half of 2021 compared with 0.61% in the same period of 2020.

The robust capital and liquidity positions of the banking sector continue to provide strong buffers for banks to withstand shocks. The consolidated total capital ratio of locally incorporated authorized institutions (AIs) stood at a high 20.2% at the end of 2021, well above the minimum international standard. The average Liquidity Coverage Ratio of category 1 institutions and the average Liquidity Maintenance Ratio of category 2 institutions also remained at high levels of 151.9% and 59.1% respectively in the fourth quarter of 2021. The latest Net Stable Funding Ratio of banks also stayed at levels well exceeding their statutory minimum requirements. Bank credit recorded a decrease in the second half of 2021, mainly due to the high base effect arising from initial public offering (IPO)-related loans straddled at the end of June. Nonetheless, for 2021 as a whole, total credit of the banking sector still recorded an annual growth rate of 3.8%, accelerating from 1.2% in 2020. On a half-yearly basis, total loans and advances of all Als decreased by 3.1% in the second half of 2021 (Chart 5.12). Excluding the IPO-related loans straddled at the end of June 2021, total loans and advances edged down slightly by 0.6% during the same period. This slight decline (excluding IPO-related loans) was driven by a mild decrease in domestic lending (comprising loans for use in Hong Kong and trade financing), while loans for use outside Hong Kong stayed largely the same. Classified loan ratios slightly increased in the second half of 2021, but remained at low levels by both historical and international standards.

From a longer term perspective, climate-related risks will likely have significant implications for financial stability. With the aim of strengthening our systemic risk analysis on climate-related issues, Box 5 develops a top-down analytical framework to assess the financial impacts of climate-related risks on non-financial corporates listed in Hong Kong based on reference climate scenarios by the Network of Central Banks and Supervisors for Greening the Financial System. An important finding is that the longer-term impact of climate transition risks on firms' default risks will be significantly smaller in the "orderly transition" scenario than in the "disorderly transition" scenario. Also, the impact of physical risks under these two scenarios is found to be lower than the "no action" scenario. Together, these results support the notion there are clear benefits to taking climate action and acting early.

In the near term, the rapid spread of the Omicron variant could threaten the economic recovery. This, coupled with risks of a fasterthan-expected pace of US monetary policy normalisation and the possible downside risks to the global economy from the escalating Russian-Ukraine geopolitical tensions, will likely pose challenges to banks' credit risk management. Banks should remain vigilant and carefully assess 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.