1. Summary and overview

Global financial markets underwent a period of turbulence amid a re-pricing of global economic growth prospects triggered by concerns over a slowdown in the Mainland economy. Equity markets worldwide witnessed sharp sell-offs, while commodity prices and emerging market currencies were under significant pressure following the depreciation of the renminbi after the refinement to its central parity rate fixing mechanism announced in August. Higher financial market volatility is likely to stay given increased uncertainty in the timing and pace of US interest rate normalisation and increasing downside risks in the global economy, particularly in the emerging market economies.

Despite heightened volatility in the global and domestic financial markets, the Hong Kong dollar exchange rate remained broadly stable and continued to stay close to the strong-side Convertibility Undertaking level. Loan growth in Hong Kong has moderated, but household indebtedness increased further. The local property market remained stretched and downward pressure has increased in the face of heightened financial market volatility both globally and domestically.

Looking ahead, the recent financial market turmoil coupled with possible deterioration in the business environment may weaken corporates' fundamentals. This, together with the expected interest rate rises in the US, could put the credit quality of corporate loans of Hong Kong's banks to the test given the rising trend of the corporate sector's leverage and debt servicing burdens. Meanwhile, the increasing share of Mainland-related lending amid slower economic growth in Mainland China remains a key risk factor to watch for.

The external environment

Global financial markets saw turbulent times in recent months. Market volatility started to increase in July on concerns over a potential Greek exit from the euro area and sharp fall in Mainland's A-share index. Subsequently, markets witnessed wild swings in August amid a repricing of global growth prospects triggered by concerns over Mainland's economic prospects. Equity markets worldwide underwent sharp sell-offs, while commodity prices and emerging market currencies were under tremendous pressure along with the depreciation of the renminbi following the refinement of the renminbi central parity rate fixing mechanism. While the risk of a Greek exit seems to have diminished after Greece and its international creditors managed to hammer out a three-year bailout, concerns about Mainland's economic slowdown, together with uncertainties surrounding the US Federal Reserve's (Fed) monetary normalisation process, downward pressure on commodity prices and growing risks in the emerging markets, would continue to cast a shadow over the global financial markets.

Although ongoing economic and labour market recovery in the US remains in line with the Fed rhetoric of a rate lift-off by the end of this year, the recent global financial market turmoil has increased the uncertainty on the timing of US interest rate hikes. Meanwhile, the weakness in commodity prices and financial market volatilities would also complicate monetary policies in Europe and Japan by intensifying deflationary pressure and slowing growth. Growth and inflation are already subdued in the euro area amid ongoing deleveraging in both the public and private sectors, and market-based long-term inflation expectations have already eased quite notably since July on global financial market turbulence. As such, market participants expect the European Central Bank (ECB) would fully implement its current asset purchase programme if not further expand it. Similarly in Japan, in view of the still-stagnant wage growth and structural headwinds from a rapidly ageing population, downside risks for the Bank of Japan (BoJ) to achieve its 2% inflation target have increased. Therefore, markets generally expect the BoJ to maintain or further expand its quantitative and qualitative easing programme.

In Mainland China, uncertainties over domestic economic prospects have increased following the sharp equity market sell-off and depreciation of the renminbi after the change in the renminbi central parity rate fixing mechanism in August. Despite the interest rate and reserve requirement ratio (RRR) cuts by the People's Bank of China (PBoC) to cushion growth and shore up market confidence, monetary conditions have not eased significantly with elevated real interest rates and a relatively strong real effective exchange rate of the renminbi. As rebalancing and deleveraging are still underway, economic growth is likely to continue to moderate in the near term. While the direct effect of the recent equity market turbulence on financial stability in Mainland China is likely to be limited given the relatively small exposure of Mainland households and banks to the equity market, leveraged trading activities and equity-backed financing would pose credit risks to certain segments of the Mainland financial system. The recent global equity market sell-off also shows that concerns

about Mainland's economic and financial market developments could have significant spill-over effect to the rest of the world. The resultant tightening in global financial conditions in turn would indirectly affect the Mainland economy and its financial markets. Box 2 (see page 29) discusses the risks associated with margin financing amid the sell-off in the Mainland equity market and its implications for macroeconomic and financial stability.

Concerns over Mainland 's economic prospects, together with falling global commodity prices and the uptrend of the US dollar, have piled further downward pressures on the already weakening economic growth and falling exchange rates in emerging market economies. With the upcoming US interest rate up-cycle and persistent weakness in global commodity prices, emerging markets, particularly those with weaker fundamentals and greater domestic and external vulnerabilities, could continue to face significant economic challenges and heightened risks of capital outflows.

In East Asia, economic growth remained weak in the first half of 2015 amid increasingly broadbased weakening of export performance and modest domestic demand. Moderated intraregional trade and sluggish demand from Mainland China and some advanced economies were major drivers of the broad-based deterioration in the region's export performance. Meanwhile, reflecting concerns about Mainland's economic outlook, cautious attitude towards risk has dominated financial markets in the region, with most regional currencies weakening against US dollar in recent months. Reduction of bond market liquidity is another issue that warrants greater attention, given the increasingly important role of these markets in the region's financial system. Box 1 (see page 16) examines the recent trends in bond market liquidity conditions and discusses the determining factors as well as the implications for financial stability.

Looking ahead, the region's economic prospects hinge very much on capital outflow pressure stemming from concerns about Mainland's economic prospects and normalisation of US monetary policy, and how that would interact with domestic vulnerabilities such as the brisk expansion of household indebtedness in the region. The region's central banks would continue to face a difficult dilemma in calibrating their policies to balance between supporting growth and preventing further build-up of vulnerabilities and capital outflows.

The domestic economy

In Hong Kong, the economy continued to grow moderately in the first half of 2015, with robust domestic demand offset partly by the weak trade performance. Real GDP growth turned out to be 0.4% quarter on quarter in the second quarter, compared with 0.7% in the first quarter. Private consumption held up solidly, while private and public investment activities improved, particularly in the second quarter. Inventory destocking however posed a drag. Exports of goods and services contracted, with the latter reflecting weaknesses in inbound tourism, offshore trade and logistics, which more than offset the stronger performance in financial services exports. Overall, net exports became a drag on GDP growth in the second quarter.

Local inflation momentum moderated in the first seven months of 2015, with the annualised three-month-on-three-month underlying inflation rate retreating to 2.8% in July from 3.6% last December, attributable to easing services inflation and housing rentals. Looking ahead, inflationary pressure will likely remain contained, in view of the modest import price inflation and the moderate pace of local economic growth. For the rest of the year, it is expected that the Hong Kong economy would see some growth moderation. On the domestic front, private consumption growth is expected to soften amid the negative wealth effect stemming from the recent stock market sell-off. While private and public sector building activities are expected to gather pace in the second half, weaker business sentiment and uncertain business prospects amid financial market volatility could weigh on capital investment. External demand is also facing headwinds amid continued weakness in tourist spending and some softening in financial services exports. The Government now forecasts the 2015 real GDP growth in the range of 2–3%, while private-sector analysts project an average rate of 2.3%. The HKMA in-house composite index of leading indicators also points to growth moderation in the second half of 2015. This growth outlook is subject to downside risks amid volatility in global financial markets, uncertainty surrounding Mainland's economic growth, US interest rate normalisation and the uptrend of the US dollar.

In fact, economic growth in Hong Kong has moderated from an average rate of 5% before the global financial crisis to around 2–3% over the past three years. Box 3 (see page 37) examines the drivers behind the slower trend growth in Hong Kong by analysing developments in the total factor productivity of key business sectors to shed light on the future prospects of Hong Kong's potential growth.

Monetary conditions and capital flows

The Hong Kong dollar exchange rate remained broadly stable, trading in a narrow range near 7.75 against the US dollar despite fickle global financial market conditions, the Mainland stock market corrections and depreciation of the renminbi following the new exchange rate fixing mechanism. Mainly reflecting equity-related demand for Hong Kong dollars, the strong-side Convertibility Undertaking (CU) was triggered repeatedly during 9–24 April involving inflows of HK\$71.5 billion. More recently, the stock market corrections in Mainland China and Hong Kong and renminbi depreciation resulted in some reversal of equity flows but the Hong Kong dollar exchange rate remained firm, with the strongside CU being triggered again in September.

Hong Kong's monetary environment stayed accommodative and the low interest rate environment continued in the first half of 2015 and recent months. The Monetary Base picked up after the triggering of the strong-side CU, and the broad money supply (HK\$M3) also increased noticeably. With abundant liquidity in the banking system, the wholesale funding costs continued to stay at low levels. The overnight and three-month HIBOR fixing rates were little changed at around 0.06% and 0.39% respectively. On the retail front, the composite interest rate declined to a recent low of 0.29% in June, down 10 basis points from six months earlier, while the mortgage interest rate remained steadily low at around 1.95%.

Total loan growth moderated slightly to an annualised rate of 11.0% in the first half of 2015 from 12.7% in 2014. The moderation was due to softer growth in domestic credit, while loans for use outside Hong Kong continued to increase at a relatively fast pace. In regard to domestic credit, sectoral performance was quite mixed, however. Trade finance picked up in the first half from a low recorded late last year and loans to stockbrokers rose notably faster due to vibrant equity IPOs and trading activities. But alongside weak performance in retail sales, loans to wholesale and retail trade declined. Meanwhile, household debt edged higher to 66.0% of GDP in the second quarter due to fast growth in personal loans and mortgage loans, although the latter slowed after the HKMA introduced the seventh round of prudential measures on mortgage loans in late February and early March. The Hong Kong dollar loan-to-deposit ratio declined slightly while the US dollar loan-to-deposit ratio edged up.

The offshore renminbi (CNH) exchange rate held steady between April and July while closely tracking the stable path of its onshore counterpart (CNY), but saw more depreciation pressure after the change in the renminbi exchange rate fixing mechanism on 11 August. The discount of CNH vis-à-vis the CNY however widened to as high as 1,000 pips in late August. The CNH interbank liquidity also tightened along with the rise in renminbi depreciation pressure, with the three-month CNH HIBOR moving up by around 130 basis points from the end of June, to 4.6% at the end of August.

The renminbi liquidity pool in Hong Kong (including outstanding renminbi customer deposits and certificates of deposits) levelled off in the first quarter before picking up again in the second quarter. Meanwhile, renminbi trade settlement handled by banks in Hong Kong decreased, showing net outflows from Hong Kong to Mainland China. On the other hand, renminbi bank lending rose by 25.7% from a low base in the first half. Moreover, Hong Kong's position as a global hub for offshore renminbi clearing and settlement has strengthened further, with the average daily turnover of renminbi real time gross settlement (RTGS) rising to RMB890.3 billion in the first half. In the near term, market expectation of renminbi depreciation, if persistent, could potentially slow down growth in renminbi liquidity pool. Yet, at the same time, the liquidity pressure might be partially offset by banks offering higher interest

rates to lure customer deposits. Going forward, the Mainland-Hong Kong Mutual Recognition of Funds (MRF) is expected to enrich the types of fund products offered in the two places and facilitate cross-border investment between Mainland China and the rest of the world through Hong Kong.

Asset markets

Hong Kong equities have taken a roller coaster ride over the past six months, with the Hang Seng Index once surging to a seven-year high but ending up sharply lower in the end. Despite increased connectivity between the Hong Kong and Mainland markets, the price premium of A-shares over H-shares remained tangible in view of significant discrepancies in equity valuation between the investors of the two markets. Looking ahead, the performance of Hong Kong equities, including H-shares, is likely to remain highly susceptible to external market conditions. Concerns of a slowdown in the Mainland economy and uncertainties over US monetary normalisation will continue to cast a shadow over the local equity market for the remainder of the year.

The domestic debt market has expanded only slightly as the reduction in issuance gathered pace. The public sector saw a decline in issuance on a year-on-year basis in the first half of the year, which was more than offset by the doubledigit growth in private sector issuance. However, the second quarter figures suggest that the private sector might also begin to lose momentum. Whether or not the market could attract issuers and investors in the foreseeable future depends on how quickly the dust can settle after the recent turmoil and how smooth the path of US monetary normalisation will be. Meanwhile, after years of phenomenal growth, the offshore renminbi debt market in Hong Kong also slowed down. Reduced investor appetite for offshore renminbi debt securities following the weakening of the renminbi and the launch of the Shanghai-Hong Kong Stock Connect, as well as lower onshore funding costs following a series of monetary easings, have probably all contributed to the slower activities. Looking forward, while the long-term outlook remains positive, market growth is likely to take a breather in the period ahead in view of increased economic and policy uncertainties.

The residential property market showed some signs of consolidation in March after the HKMA introduced the latest round of prudential tightening, but market activities picked up gradually in April–June before softening again in July–August. Housing prices rose rapidly in the first two months but the pace of increase has decelerated since then. Still, with the rapid increase early in the year, housing prices picked up by 9.1% in the first seven months, led by the mass market segment. Housing affordability also remained highly stretched, with the housing price-to-income ratio rising to a record level and the income-gearing ratio climbing further above its long-term average.

Banking sector performance

The banking sector continued to post healthy performance, characterised by stable earnings growth, strong capital positions and sound asset quality. In the first half of 2015, retail banks' pre-tax operating profits grew by 5.4% from the second half of the previous year. The improvement in earnings was mainly driven by robust growth in non-interest income which more than offset decreases in net interest income. However, reflecting faster growth in assets than income, the return on assets of retail banks edged down to 1.14% in the first half of this year.

The banking sector saw a smooth implementation of the new Basel III liquidity standards, which became effective from 1 January 2015. The liquidity positions of the banking sector continued to be favourable in the second quarter, with both the average Liquidity Coverage Ratio of category 1 institutions and the average Liquidity Maintenance Ratio for category 2 institutions staying well above the regulatory minimum.

To strengthen banks' risk management, the HKMA implemented another round of prudential measure on mortgage lending in February 2015. Reflecting partly the policy effect, the number and amount of new mortgages as well as the average loan-to-value ratio of newly approved mortgages were reduced in the second quarter. While macro-prudential policies (MPPs) have been increasingly adopted by policymakers globally to contain systemic risks after the global financial crisis, their implementations may come with unintended international spillover effects. Findings in Box 4 (see page 72) show that the Hong Kong banking sector is not immune to the spillover effect from the home countries of foreign banks in Hong Kong. The study further shows that both the pattern and the extent of the spillover effect of MPPs are crucially dependent on banks' balance sheet characteristics and types of MPP instruments being adopted. These findings suggest that policymakers may face significant challenges in achieving a coordinated implementation of MPPs among policymakers in different jurisdictions.

Looking ahead, the recent financial market turmoil coupled with possible deterioration in the business environment may weaken corporates' fundamentals. This together with the expected interest rate rises in the US could exert upward pressure on corporates' financing costs, which could put the credit quality of corporate loans of Hong Kong's banks to the test in view of the rising trend of the corporate sector's debt leverage and debt servicing burdens. Meanwhile, the increasing share of Mainland-related lending amid slower economic growth in Mainland China remains a key risk factor to watch for. Banks should continue to maintain prudent risk management on their credit exposures.

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