1. Summary and overview

Global financial markets experienced a sharp correction at the start of 2016 before stabilising more recently. Looking ahead, increased risk of a sharper global economic slowdown, lingering concerns over the scope and effectiveness of major central banks' monetary policy in supporting growth and continued weakness of oil and commodity prices are likely to keep market volatility elevated. The global economic outlook will hinge on the extent to which continued financial market volatility spills over to real economic activities, while the prospects for the emerging market economies also depend crucially on the strength of the US dollar.

The Hong Kong dollar exchange rate eased in early 2016, reflecting normal workings in accordance with the design of the Linked Exchange Rate System following the US interest rate hike as well as heightened uncertainties in the economic and financial environment. Loan growth decelerated in the second half of 2015 while the residential property market softened. Looking ahead, banks in Hong Kong are likely to face the challenge of more volatile interest rates and possible capital outflows amid normalisation of US interest rates. This coupled with the potential global economic slowdown and financial market turbulence could put increasing pressure on the credit quality of banks' assets in general.

The external environment

A sudden jump in risk aversion gripped global financial markets at the start of the year with global equity prices plunging sharply, oil prices dropping to a 12-year low, and emerging market currencies continuing to come under pressure. The global financial market turbulence reflects investors' re-pricing of risk, as factors that used to support the valuation-rich financial markets are waning. As the US Federal Reserve (Fed) has started its interest rate hike cycle and the economic slowdown in major emerging market economies (EMEs) continues, fears of loss of global growth engine and reversal of liquidity support have led to broad-based market sell-offs. With EMEs contributing almost 80% of global GDP growth over the past few years, global economic prospects are likely to hinge on how EMEs perform at the margin. The slowdown in major EMEs, particularly Mainland China, together with lacklustre growth in both Europe and Japan means that the US economy alone is unlikely to lift global growth, and the risk of a sharper global growth slowdown has increased.

Meanwhile, there are increasing concerns over the effectiveness and scope of monetary policy of major central banks in supporting the fragile economy. As the European Central Bank and the central bank in Sweden are taking their interest rates deeper into negative territory, the Bank of Japan has joined them in adopting negative interest rate policy. While the objective of the policy is to reduce the cost of borrowing and drive demand for loans and encourage investment and consumer spending, the increasing adoption of negative interest rates by major central banks triggered sharp global equity market sell-offs, particularly in the banking sector. Markets saw the resort to negative interest rate policy by major central banks as a sign that global monetary easing policies might have run their course. On the other hand, there were also concerns that negative interest rates would dent banks' net interest margins which have already been under pressure in part due to the prolonged low interest rate environment. In the US, although markets have now priced in an even flatter path of the Fed's interest rate hikes, the pace of future rate hikes remains uncertain as the US inflation outlook is subject to opposite forces at play. While continued softening of energy and commodity prices could put downward pressure on US inflation, core services inflation which has a higher weight in households' consumption basket, is seeing a continued uptrend amid the buildup of domestic demand pressure.

In Mainland China, economic growth moderated in the second half of 2015, with deleveraging in overcapacity sectors and housing inventory overhang continuing to weigh on growth, offset by still solid consumption and accelerated infrastructure spending. On the supply side, the vibrant expansion of the service sector has rendered vital support to economic activities as the economy is moving towards a more balanced growth model. Box 1 (see page 27) discusses recent developments in the service sector and its contribution to output and employment growth.

The Mainland equity and foreign exchange markets have seen heightened volatility recently. The normalisation of US interest rates and uncertainties surrounding the Mainland economic outlook have intensified outflow pressures on the Mainland since the second half of 2015. The renminbi depreciated by 5.6% against US dollar since end-July last year until end-January this year before stabilising in February. While the recent increase in outflow pressure has been partly driven by cross-border outflows, it also reflected asset-liability rebalancing by Mainland residents. To offset the impact of capital outflows on liquidity conditions, the PBoC injected liquidity into the banking system through reverse repo, and cut the reserve requirement ratio by 50 basis points in March. Meanwhile, risk-off sentiment in the equity market and low exchange repo rates have boosted leveraged activities in the corporate bond market, raising concerns over mispricing of credit risks. Box 2 (see page 33) analyses leveraged activities in the Mainland corporate bond market and assesses their risk to financial stability.

In East Asia[1], growth momentum remained weak in the fourth quarter of 2015. Export growth remained lacklustre in the region, while domestic demand in many regional economies has continued to slow. In the face of sharper economic slowdown, some regional central banks have eased their monetary policy despite the risk of triggering further capital outflows. Going forward, the region's prospects are likely to hinge on the pace of US interest rate hikes, the strength of the US dollar, commodity price trends and growth in major export markets, and how these factors interact with domestic vulnerabilities such as high private-sector indebtedness and stretched asset markets to affect economic growth and financial stability.

[1] East Asian economies refer to Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand.

The domestic economy

Hong Kong's economic growth slowed further towards the end of 2015, with the quarter-on-quarter real GDP growth dropping to a paltry 0.2% in the fourth quarter from about 0.6% in the first three quarters. On the domestic front, private consumption growth eased noticeably amid weaker consumer confidence, corrections in asset prices, and softer financial services demand. While inventory destocking decreased, gross capital formation was dragged by slower progress in public projects and weak business sentiment. On the external front, exports of goods picked up somewhat, whereas exports of services continued to contract due to the downturn in inbound tourism and moderation in financial services activities. With import growth rebounding, net exports became a drag on GDP growth in the fourth quarter.

CCPI inflation has been on a downward trend since 2012, although sequential inflationary pressure has picked up in the second half of 2015 and early 2016 due to volatile food prices and dissipation of special fuel rebate in electricity. On a year-on-year basis, the underlying inflation rate remains largely steady. Looking ahead, inflationary pressure will likely remain contained, in view of the soft import price inflation, moderation in housing rentals and the modest local growth momentum.

The Hong Kong economy is expected to remain soft in 2016 amid the US monetary policy normalisation, continued slowdown in global growth and heightened volatilities in international financial markets. Domestically, rises in interest rates and corrections in asset prices will weigh on private consumption and investment. Box 3 (see page 41) examines the impact of interest rate hikes on private consumption. Externally, exports of goods and services will face headwinds from the lacklustre global economic environment and continued weakness in inbound tourism. With subpar local economic activities, the unemployment rate is expected to face some upward pressure going forward. For 2016 as a whole, the Government forecasts the real GDP growth in the range of 1–2%, while the market consensus forecast is 1.8%.

Monetary conditions and capital flows

The Hong Kong dollar exchange rate, having stayed close to the strong-side Convertibility Undertaking (CU) throughout the second half of 2015, weakened in early 2016. The strong-side CU was repeatedly triggered in September and October 2015 due in part to conversions of the offshore renminbi into the Hong Kong dollar. Moving into 2016, however, the Hong Kong dollar exchange rate eased. The widening of spreads between Hong Kong dollar and US dollar interest rates after the lift-off in US interest rates, as well as the sell-off in the Hong Kong equity market, the increased volatility of the renminbi exchange rate, the less optimistic market outlook for the Hong Kong and Mainland economies and the general weakness in Asian currencies have dampened the demand for the Hong Kong dollar. Following the stabilisation of global risk sentiment, the Hong Kong dollar exchange rate steadied within a range of 7.7668 to 7.7905 in February, having eased to beyond 7.8 briefly in mid-January. The weak-side CU level of 7.85 has not been touched.

The Hong Kong dollar interbank market continued to function normally. HIBORs continued to stay at relatively low levels, notwithstanding some pick-up in term rates in recent weeks amid heightened financial market volatilities. Following the increase in the target range for the US Federal Funds Rate from 0–0.25% to 0.25–0.5% in December 2015, the HKMA adjusted upward the Base Rate for its Discount Window accordingly from 0.5% to 0.75%.

Going forward, the timing and magnitude of increases in Hong Kong dollar interest rates will hinge on the timing, speed and size of fund outflows which are subject to changes in various factors including the Hong Kong dollar-US dollar interest rate differentials, the global macro-financial outlook, as well as market sentiment. Given the likely gradual pace of US interest rate hikes and a sizable Hong Kong dollar Monetary Base, the adjustment in Hong Kong dollar interest rates should not be too rapid. In the event of fund outflows, when the Hong Kong dollar exchange rate weakens to 7.85, the HKMA will buy Hong Kong dollars against US dollars. The Monetary Base will shrink as a result, pushing up Hong Kong dollar short-term (overnight) interest rates to levels closer to their US dollar counterparts. This is an inevitable step in the normalisation process of Hong Kong dollar interest rates, reflecting normal workings in accordance with the design of the Linked Exchange Rate System.

With a lacklustre global economic environment and heightened exchange rate volatilities, total loans contracted by an annualised rate of 3.7% in the second half of 2015, dragging the full-year growth to 3.5% from 12.7% in 2014. In particular, both loans for use in Hong Kong and outside Hong Kong declined, with the latter reflecting partly the slowdown in Mainland-related borrowings. By currency, both Hong Kong dollar and foreign currency loans dropped, with the latter being partly driven by the repayment of US dollar loans in response to the weakening in renminbi exchange rate. Meanwhile, total deposit growth slowed, with both Hong Kong dollar and renminbi deposits contracting, whereas US dollar deposits picked up strongly. As such, the Hong Kong dollar loan-to-deposit ratio decreased from 79.9% at end-June 2015 to 78.2% at end-2015, and the US dollar loan-to-deposit ratio decreased notably from 88.6% to 76.1% over the same period.

Amid increased market concerns about the US interest rate normalisation and the prospect for the Mainland economy, both the onshore (CNY) and offshore (CNH) renminbi exchange rates weakened, with the discount of the CNH vis-à-vis its onshore counterpart once widening to about 1,500 pips in early January. The overnight CNH HIBOR fixing also surged to a high of 66.8% in mid-January on tightened liquidity conditions. Both the CNY and CNH renminbi exchange rates have stabilised recently, with the discount of the CNH over CNY narrowing to virtually zero at the end of February. Meanwhile, tightness in the CNH interbank market has also eased somewhat. In view of the recent high volatility in both the CNY and CNH renminbi exchange rates, Box 4 (see page 53) studies the main drivers of the CNH-CNY spread before and after the change of the renminbi central parity fixing mechanism.

Changes in market expectation of the renminbi exchange rate led to a consolidation in Hong Kong's renminbi liquidity pool (including outstanding renminbi customer deposits and certificates of deposits) in the second half of 2015. That said, other offshore renminbi business areas, such as renminbi trade settlement, renminbi bank loans, and the average daily turnover of renminbi real time gross settlement (RTGS), continued to grow at a solid pace. Looking ahead, while Hong Kong's offshore renminbi business may be affected by uncertainty over the macro-financial development in Mainland in the near term, it will continue to benefit from the Mainland's capital account liberalisation and the internationalisation of the renminbi in the long run.

Asset markets

Reflecting concerns about global economic slowdown, the Hong Kong equity market fluctuated widely and experienced a sharp correction during the review period. Last year, after a turbulent summer break investors regained some confidence at the start of the fourth quarter. However, the market came under pressure again towards the end of 2015 amid renewed weakness of oil and commodity prices, and increased risks of a global slowdown. Looking ahead, uncertainties over the global economy, the pace of US monetary normalisation and volatility of oil and commodity prices are likely to keep investors on the sideline. Therefore, despite the attractive valuation compared to other markets in the region, the local equity market is unlikely to have a smooth ride over the remainder of the year.

The Hong Kong dollar debt market maintained its steady growth in 2015 despite a major risk-reappraisal in global bond markets. While new debt issuance by the local private sector fell during the year, it was more than offset by the growth in public sector issuance. Meanwhile, after a period of rapid growth, the offshore renminbi debt market in Hong Kong posted the first annual decline since 2007. In the near term, the road ahead is expected to remain challenging due to escalated volatility and uncertainty in global financial markets, and regulatory changes that may make it easier for Mainland corporations to tap the onshore bond market. Further out, however, the picture may turn more positive, in particular if the inclusion of the renminbi in the Special Drawing Rights basket can boost the demand for assets denominated in the currency.

The residential property market has softened since the second half of 2015 amid weaker market sentiment. In particular, housing transactions dropped by 26% in the second half, with average monthly secondary-market transactions falling to a historical low, while the average monthly primary-market transactions only dropped slightly as property developers pushed more new properties for sale during the period. Housing prices also registered some declines, with the Centa-City Leading Index dropping by 13.2% from its peak in September. That said, housing affordability was still stretched, with both the price-to-income ratio and the income gearing ratio staying at high levels. Meanwhile, signs of consolidation also emerged in the non-residential property market, with prices falling across market segments since the last quarter.

Banking sector performance

Retail banks registered lower profit in the second half of 2015, with their pre-tax operating profit reducing by 15.5% and return on assets receding to 0.97%. The decline in profit was mainly due to lower non-interest income, while rises in operating costs and higher loan impairment charges were also relevant. Meanwhile, the banking sector witnessed the first contraction in loan book since the global financial crisis.

Nevertheless, the banking sector entered 2016 in a strong position. In particular, banks' asset quality remained sound despite slight deterioration in the second half of 2015. Banks' capital and liquidity positions, as measured by Basel III standards, were structurally robust and strengthened further. The consolidated capital adequacy ratio of locally incorporated authorized institutions (AIs) increased to 18.3% at the end of 2015. The average Liquidity Coverage Ratio for category 1 institutions rose to 142.9%, while the average Liquidity Maintenance Ratio for category 2 institutions also increased to 53.9%. All of these ratios were well above their regulatory minimums. In addition, the countercyclical capital buffer, which will rise to 1.25% of total risk-weighted assets with effect from 1 January 2017 from the current 0.625%, would enhance banks' resilience against systemic risks.

In an attempt to provide a more comprehensive and realistic assessment on key vulnerabilities of banks, Box 5 (see page 77) presents a modified macro stress-testing framework with macro-financial feedback linkages. We show in a stress-scenario analysis that through the interaction between the financial and real sectors, an initial macro shock could be amplified and translated into a sharper rise in banks' classified loan ratios. One implication for the current juncture is that while the recent deterioration in asset quality is not alarming, banks should remain vigilant and prepare for the possible worsening of asset quality associated with the macro-financial feedback effect.

Looking ahead, the banking sector faces challenges on various fronts. Banks should pay close attention to the impacts of more volatile interest rates and possible capital outflows amid normalisation of US interest rates. This coupled with the potential global economic slowdown and financial market turbulence could put increasing pressure on the credit quality of banks' assets in general.

In view of the rising corporate leverage and debt-servicing burdens, the credit risk of corporate exposure may increase further. Banks should maintain prudent credit risk management in this more challenging operating environment.

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