2. Global setting and outlook

Global financial markets plummeted at the start of the year on deepening concerns about the health of the global economy and fears of reversal of liquidity support after the US interest rate lift-off. Looking ahead, while market sentiment has recently improved, global economic and financial market uncertainties are set to remain elevated, clouded by risks emanating from US monetary normalisation, slowdown in emerging market economies as well as persistent decline in oil and commodity prices. In the face of the continued emerging market slowdown and sluggish growth in both Europe and Japan, it is unlikely that the US economy can single-handedly propel the global economy and the risk of a sharper global slowdown has increased.

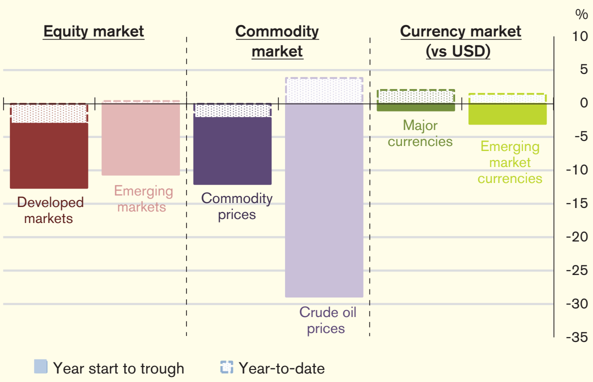
In East Asia, growth momentum weakened as financial conditions tightened along with immense selling pressure in the financial markets and intensified capital outflows early this year while external demand remained subdued. Despite resilience of the East Asian economies relative to the 1990s and to many other emerging market economies, the region will likely continue to face a multitude of risks and challenges ahead.

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. The government will focus on supply-side reform this year to promote economic restructuring. On the financial front, amid the weakening of the renminbi against US dollar, capital outflows increased in the second half of last year, in part reflecting asset-liability rebalancing by Mainland residents. With the stabilisation of the renminbi exchange rate, the decline in foreign reserves has moderated recently.

2.1 External environment

Global financial markets plummeted at the start of the year before stabilising recently. At one point, global equity prices plunged sharply with oil prices dropping to a 12-year low and emerging market (EM) currencies continuing to come under pressure (Chart 2.1).

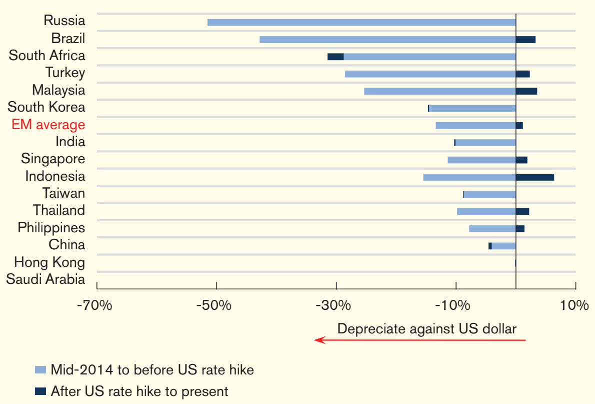
Chart 2.1
Recent volatility in the global financial markets



Note: "Year-to-date" represents the percentage change from the start of the year to present. "Year start to trough" represents the percentage change from the start of the year to the recent trough. The dates when markets hit a bottom were 11 February for developed equity markets and commodity prices, 20 January for crude oil prices and emerging market currencies, 21 January for emerging market equity markets and 29 January for major currencies.
Source: Bloomberg.

The high market volatility reflects a continued re-pricing of risks as factors that used to support the valuation-rich financial markets, such as expectations of abundant global liquidity and strong growth in emerging market economies (EMEs) perpetually supporting global growth, have begun to wane. Indeed, while financial markets initially reacted calmly to the US Federal Reserve's (Fed) first interest rate hike in nine and a half years in December last year, EM currencies have actually long been under pressure and already depreciated sharply since 2014 in the face of a strong US dollar in anticipation of the looming US monetary normalisation and ongoing slowdown in EMEs (Chart 2.2).

Chart 2.2
Emerging Market currencies

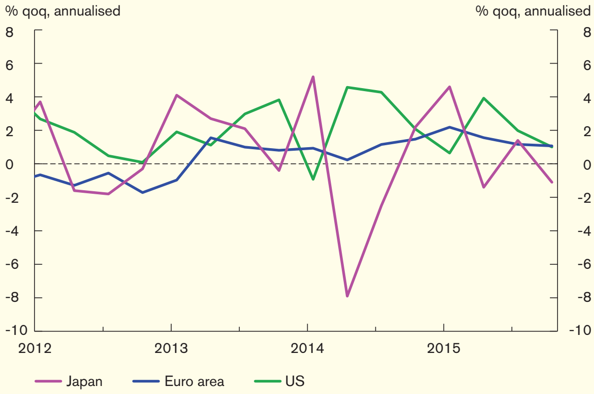


Source: Bloomberg.

Going forward, while market sentiment has recently improved, global economic and financial market uncertainties are set to remain elevated with the outlook of EMEs hinging on the extent of the slowdown in major export markets, movement of the US dollar and weakness in oil and commodity prices. With EMEs contributing almost 80% of global growth since the global financial crisis and accounting for almost 60% of world GDP, the slowdown in EMEs would pose a significant drag on the global economy. This could lead to negative spill-over effects on advanced economies not only through trade but also via financial channels as the recent equity market sell-offs in advanced economies on concerns about global growth did cause significant tightening in financial conditions.

In the face of the slowdown in EMEs, it is unlikely that the strengthening US economy can single-handedly propel the global economy when growth in both Europe and Japan remains sluggish. In the US, real GDP growth slowed sharply to 1% quarter on quarter (annualised) in the fourth quarter of 2015, down from 2% recorded in the previous quarter. However, the slowdown appears to be temporary as activities and employment continued to hold up going into early 2016. Indeed, the unemployment rate fell to 4.9% in February, just above the Fed's median estimate of the natural rate at 4.8%. By contrast, real GDP growth in the euro area continued to remain modest at 0.3% quarter on quarter in the fourth quarter of 2015, the same pace as in the prior quarter. The unemployment rate edged down recently but remained high at 10.3% in January. Similarly, in Japan, although the sharp upward revision to the third quarter real GDP growth to +0.3% quarter on quarter (up from -0.2%) suggests the Japanese economy did not fare as badly as previously thought, the economy contracted again in the fourth quarter, by 0.3%, as real consumer spending plunged (Chart 2.3).

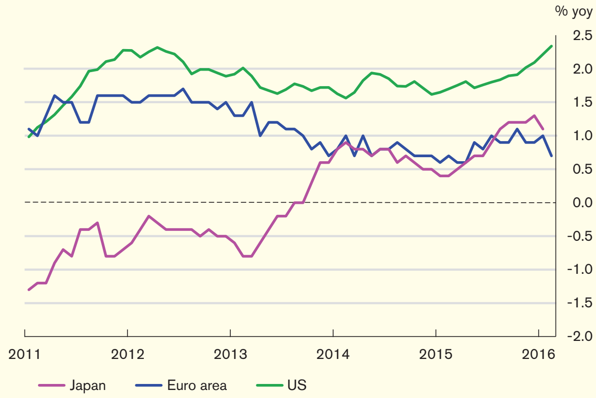
Chart 2.3
Real GDP growth of major advanced economies



Source: Bloomberg.

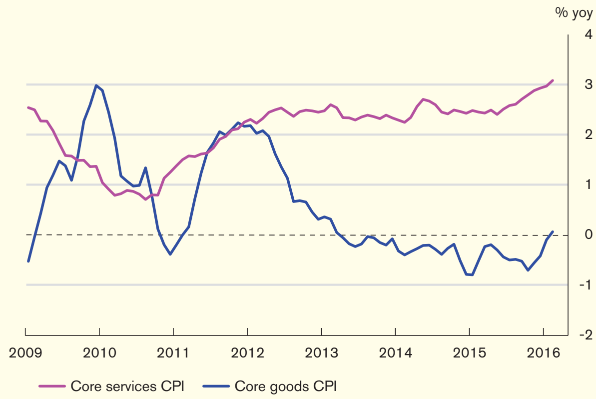
Headline inflation remained subdued across major advanced economies but core consumer price index (CPI) inflation has continued to rise in the US (Chart 2.4). As a result of the stronger recovery, core CPI inflation (excluding food and energy) in the US continued to edge higher to 2.3% in February. Underlying the increases in US core CPI is the persistent divergence between core services and core goods inflation with the former being driven up by the strengthening of domestic demand and diminishing economic slacks while the latter is being weighed down by prior falls in energy and import prices (Chart 2.5). Nevertheless, the recent uptick in core goods inflation suggests such divergence may be narrowing. In Japan, the “new core” inflation (excluding fresh food and energy) remained subdued at 1.1% in January and has remained below the Bank of Japan’s (BoJ) 2% target ever since it was introduced back in January 2013. Meanwhile, core inflation (excluding food and energy) in the euro area has also recently fallen back to 0.8% in February amid the modest recovery.

Chart 2.4
Core CPI inflation in major advanced economies



Sources: CEIC and Datastream.

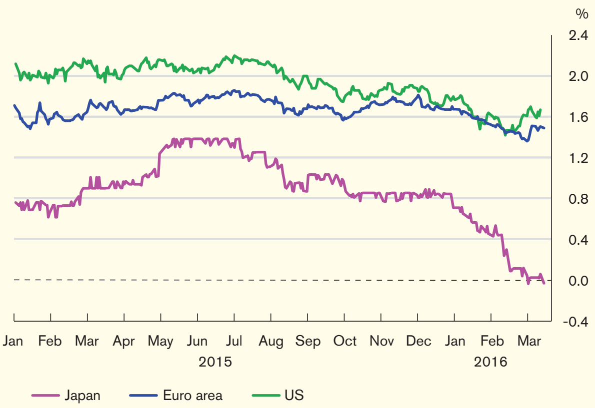
Chart 2.5
Core goods and core services inflation in the US



Source: CEIC.

In response to the slowing global growth and below-target inflation, many central banks in advanced economies have continued to indicate further monetary policy support. Nevertheless, there are now increasing concerns about the scope of further monetary easing and their effectiveness in supporting global growth and the financial markets. In particular, the increased popularity of negative interest rates pursued most recently by the BoJ, following experiences of other central banks across Europe, has raised market concerns that quantitative (and qualitative) easing might have reached its practical and effectiveness limit. On the other hand, the recent banking sector sell-offs in the equity markets amid concerns over the adverse impact of negative rates on banks' net interest margins, also suggest there likely exists a lower bound for negative interest rates before its side effects would render further cuts prohibitive. As such, markets appear to have priced in the inability of major central banks to support the global economy and to turn around the continued subdued trend in inflation with the longer-term inflation expectations continuing to trend downwards (Chart 2.6). The fall in US longer-term inflation expectations in part reflects concern about the negative feedback from recent global economic developments and market volatilities to the US economy, with markets now only pricing in one to two US rate hikes in the next 18 months. Nevertheless, the pace of future rate hikes remains highly uncertain as domestic and external forces are at play to shape the US inflation outlook.

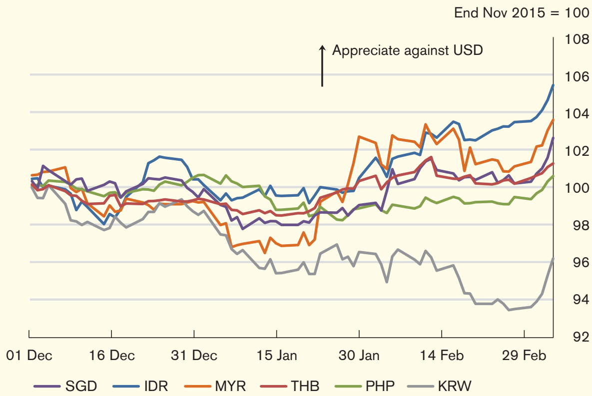
Chart 2.6
Inflation expectations in major advanced economies



Note: Data used for the US is the 5-year/5-year forward inflation expectation rate. Data used for the euro area is the inflation-linked swap rate at 5-year forward 5-year ahead. Data used for Japan is the 5-year/5-year inflation swap rate.
Sources: Bloomberg, Datastream and St Louis Fed.

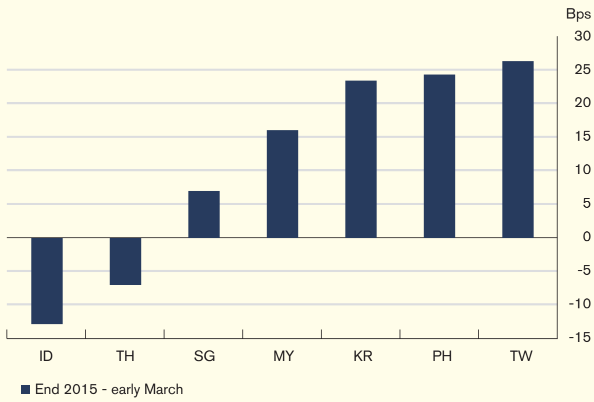
In East Asia[2], financial markets have experienced sharp sell-offs and capital outflow pressures have intensified in the first few weeks in 2016 amid growing concerns over global economic outlook. A number of regional currencies experienced renewed weakness against the US dollar (Chart 2.7) in January before stabilising in February, while equity markets in the region also faced increased selling pressure. Sovereign bond spreads over US Treasuries have widened for most regional economies as well (Chart 2.8). The slump in oil prices has added to market volatilities as it raised concerns over the economic outlook of commodity exporters.

Chart 2.7
Asia: Exchange rate against US dollar



Source: Bloomberg.

Chart 2.8
Asia: Change in yield spread of the 10-year sovereign bond

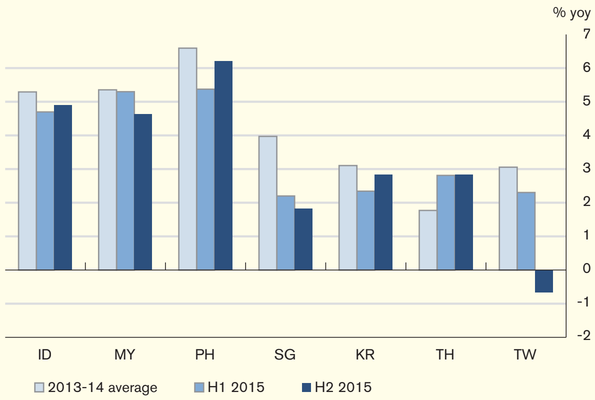


Note: Yield spread over the 10-year US Treasuries.
Source: CEIC.

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

With capital outflows and downward pressures on asset prices leading to a tightening of financial conditions, domestic demand in many regional economies has softened. At the same time, exports remained lacklustre against the backdrop of subdued demand from major advanced markets, particularly as the expected positive contribution from the recovery of the US economy to the region's exports has yet to be seen. Against this background, most regional economies experienced moderation in growth performance in 2015 (Chart 2.9).

Chart 2.9
Asia: Real GDP growth



Source: CEIC.

Amidst weakening growth momentum and heightened financial market volatilities, regional central banks are facing an increasingly difficult dilemma in their conduct of monetary policy, having to strike a delicate balance between bolstering growth on one hand and preventing further escalation of capital outflow pressures on the other hand. While a few regional central banks[3] have recently cut their policy rates, most other regional central banks are keeping their policy rates unchanged.

Going forward, the East Asian region will likely face a multitude of risks and challenges. In the near term, while the region's external sector performance will likely continue to be clouded by persistent weakness in global demand, increased risk of a sharper-than-expected global economic slowdown, as well as uncertainties over the pace of monetary policy normalisation in the US and oil and commodity price movements, may also give rise to heightened global financial market volatilities and tighter financial conditions in emerging markets that could pose further downward pressure on growth and capital flows in the region.

The question is how resilient the regional economies are in the face of the current bouts of financial turbulence. Compared to the 1990s, the East Asian region is enjoying stronger external positions, larger stockpile of foreign exchange reserves, as well as fewer currency and maturity mismatches in foreign liabilities. The exchange rate regimes across Asia are also more flexible nowadays, which may serve as a shock absorber in case of capital outflows. A number of regional economies have put in place macro-prudential policy measures to contain the build-up of vulnerabilities which should act as a buffer against future shocks. Nonetheless, the region faces a number of risks that were unseen before:

First, given the unprecedented large scale capital inflows accumulated over the past few years, there could be more capital outflows to come. Up to the third quarter of 2015, only 18% of the US$1.68 trillion cumulative capital inflows to emerging Asian economies since 2009 have exited the region based on balance of payments statistics.[4] The size of potential capital outflows could therefore be significant and may result in disruptive unwinding of financial imbalances.

[3] The central banks of Taiwan and Indonesia respectively lowered their policy interest rates by 12.5 basis points (to 1.625%) in December 2015 and by 75 basis points in total (to 6.75%) in January, February and March 2016.

[4] These emerging Asian economies include Mainland China, Hong Kong, Indonesia, the Philippines, Singapore, South Korea and Thailand.

Second, the financial imbalances in the region built up over the past few years remain a source of vulnerability. In particular, corporate bond issuance in the region has been robust in the past few years, while household debts in some parts of the region also remain elevated. At the same time, the significant amount of US dollar denominated liabilities in the region also suggest that a weakening of regional currencies may put pressures on the repayment ability of borrowers. These factors could continue to pose challenges to the stability of the regional financial system.

Third, the external and domestic environment faced by emerging Asian economies is much less supportive than that in the 1990s. Compared to the 1990s, the Asian exporters are now facing stronger headwinds amid the secular slowdown in major export markets, while domestic demand in many Asian economies is also weakening amid a tightening of financial conditions. In the longer term, it also appears that potential growth in the Asian region has been diminishing, against the background of demographic changes, supply-side bottleneck and a secular slowdown in major export markets.

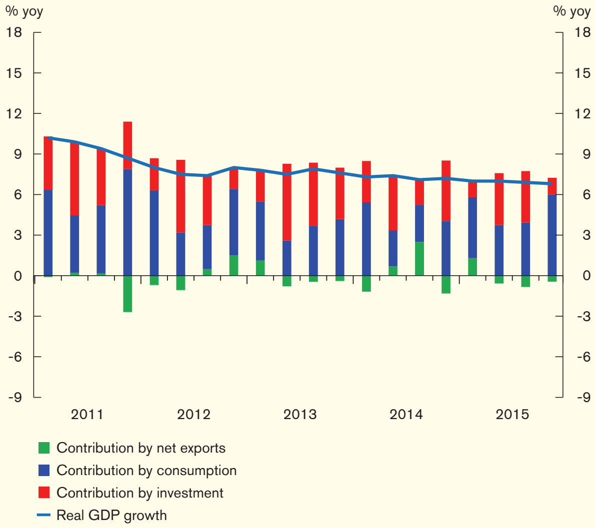
The Asian region's prospect would therefore hinge on the pace of US interest rate hikes, the strength of the US dollar, commodity price trends and growth in major export markets, and how these factors interact with domestic vulnerabilities such as high private-sector indebtedness and stretched asset markets to affect economic growth and financial stability.

2.2 Mainland China

Real sector

Economic growth continued to slow in Mainland China, with real GDP growth easing from 6.9% year on year in the third quarter to 6.8% in the fourth quarter of 2015 (Chart 2.10). Among major components, consumption remained solid and continued to be the major growth driver during the period. While accelerated public spending on infrastructure projects and accommodative monetary policies extended some support to investment growth, private business spending remained sluggish amid weakness in the manufacturing sector and lacklustre property markets. For the year as a whole, the Mainland economy expanded by 6.9% in 2015, in line with the government target of around 7% growth.

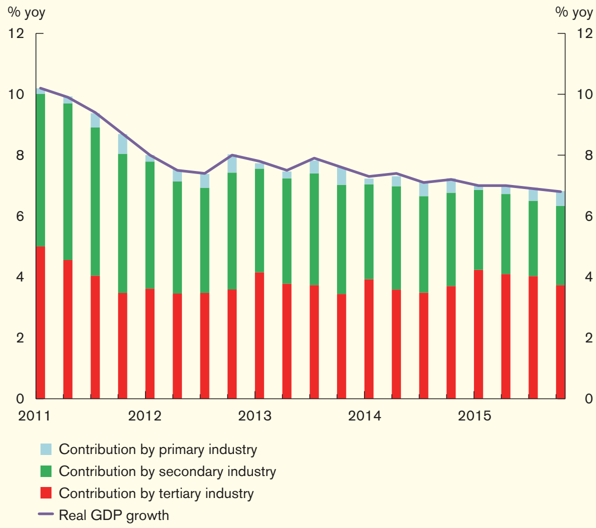
Chart 2.10
Mainland China: contribution to GDP growth by demand component



Sources: CEIC, NBS and HKMA staff estimates.

In value added terms, services continued to outperform manufacturing as the most important contributor to economic expansion. Growth of the secondary industry remained weak in the fourth quarter, despite having rebounded on the interest rate cut and targeted supportive measures to small and medium-sized enterprises. In comparison, the tertiary industry continued to expand at a robust pace in the last quarter of 2015 and contributed about 58% of GDP growth for the whole year, up from around 51% in 2014 (Chart 2.11). Detailed analysis suggests that *wholesale & retail trade* was the most important service segment in terms of contribution to output growth and job creation. Box 1 discusses the potential drivers and bottlenecks for service sector development by examining in greater details the performance of different service segments.

Chart 2.11
Mainland China: contribution to GDP growth by industry



Sources: CEIC, NBS and HKMA staff estimates.

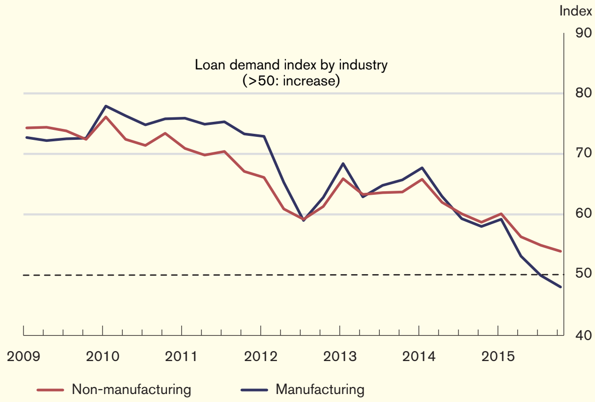
Looking ahead, downward pressures on growth remained amid the ongoing adjustments in the housing market and the manufacturing sector. In particular, restructuring in overcapacity industries would likely continue to weigh on industrial production and labour hiring. The ongoing destocking in the property market especially in lower-tier cities would also remain a drag on real estate sector investment. On the external front, uncertainty in the near-term prospects of the global economy would further exert pressures on Mainland's export performance. In view of increased uncertainty for the economic outlook, the government set this year's economic growth target at between 6.5% and 7%. Latest forecasts by market analysts suggest that real GDP growth would moderate further to 6.4% for 2016.

Upward price pressures remained modest against the background of lukewarm economic conditions. Consumer price inflation eased somewhat from 1.7% year on year in the third quarter to 1.5% in the fourth quarter of 2015, as food prices increased at a slower pace. Meanwhile, producer prices remained on the downward trajectory and fell by 5.9% year on year in the last quarter of 2015, in part due to the sharp decline in international commodity prices as well as sluggish investment demand and overcapacity problems in the manufacturing sector.

Bank lending and asset quality

Less favourable business environment and softening corporate profitability continued to weigh on loan demand. The survey conducted by the People's Bank of China (PBoC) shows a broad-based weakening in loan demand by large and small business owners. Breakdown by industry shows that the loan demand index in the manufacturing sector has dropped below the dividing line of 50, as falling producer prices and sluggish external demand weighed on the confidence of factory owners (Chart 2.12). Amid increased uncertainties over global and domestic economic outlook, the borrowing needs of corporates seem to remain weak as business owners hold back their investment plan.

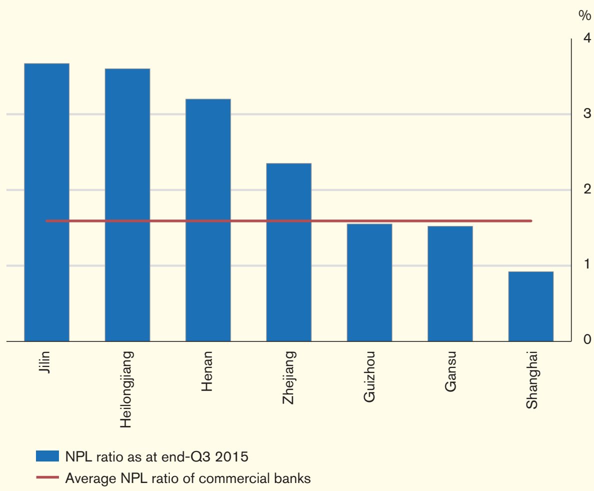
Chart 2.12
Mainland China: Loan demand index by industry



Sources: CEIC and PBoC.

On the supply side, banks are becoming more cautious in loan approvals as asset quality is increasingly under pressure. Non-performing loans (NPLs) of commercial banks picked up to RMB1.3 trillion at the end of 2015, some 50% higher than at the end of 2014. Meanwhile, the NPL ratio also edged up to 1.67% from 1.25%. Breakdown of NPLs by province shows that bank asset quality deteriorated in provinces where heavy industries are concentrated as overcapacity and falling commodity prices have weakened repayment ability of companies in resources and energy related sectors. This can be seen from the relatively high NPL ratio in Jilin, Heilongjiang and Henan provinces, standing at over 3% in the third quarter of 2015 (Chart 2.13).

Chart 2.13
Mainland China: NPL ratio of banks by province



Source: CBRC.

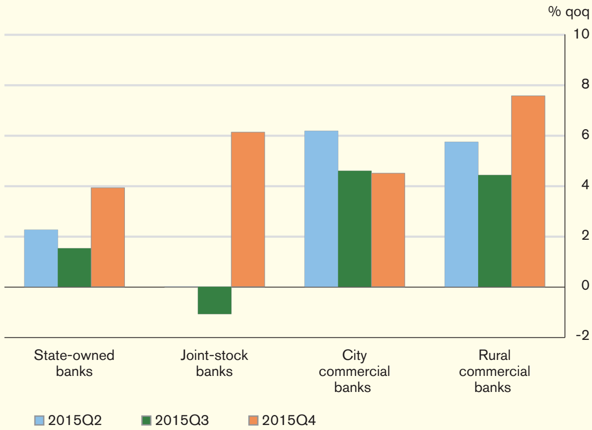
Amid economic headwinds, bank asset quality is expected to weaken this year as the portion of special mention loans picked up noticeably from 3.1% at end-2014 to 3.8% at end-2015. Special mention loans refer to loans that are less than 90 days overdue, which have high probability to turn into NPLs based on historical patterns. There has been a sharper increase in the share of special mention loans for smaller banks given their relatively larger exposure to small firms with higher default probability (Chart 2.14).

Chart 2.14
Share of special-mention loans for major listed banks

Source: WIND.

To contain the increase in problematic loans, some banks particularly joint-stock banks have become reluctant to extend credit to small firms.[5] To step up liquidity support to the real sector, policymakers have used various targeted measures to encourage bank lending to small business owners. For instance, the PBoC allowed a lower RRR for banks with significant lending to the agricultural sector and small and micro-sized enterprises. The central bank also increased the size of medium-term lending facility (MLF) to commercial banks that extend credit to strategically important areas such as small business financing.[6] Underpinned by these targeted liquidity measures, growth of bank credit to small firms rebounded in the fourth quarter of 2015 (Chart 2.15).

Chart 2.15
Loans to small enterprises by type of commercial banks



Source: CBRC.

In the face of higher NPLs, banks have increased provisions to cover potential loan losses. On a year-on-year basis, provisions put aside by commercial banks increased by 18% during 2015, with the bad debt coverage ratio (provisions / NPLs) standing at 181% at the year-end. While this serves as a strong buffer for banks to cope with deterioration in asset quality, increased provisions have also exerted downward pressure on growth of net profits of banks, which slowed to 2.4% in 2015, down from 9.6% in 2014. Reflecting this, return on equity declined from 17.6% at end-2014 to 15.0% at end-2015.

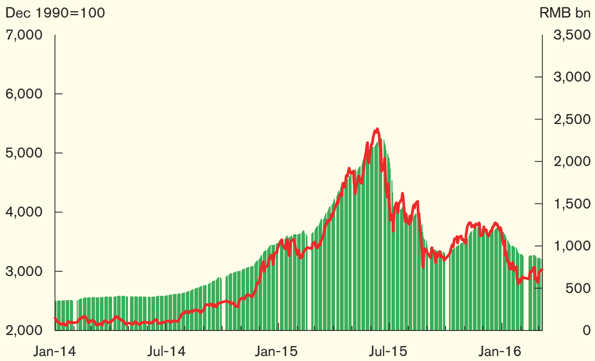
[5] For example, China Merchants Bank stated in its 2015 interim report that the bank cut back lending to small enterprises with potential risk of default against the backdrop of economic slowdown.

[6] The PBoC lowered the interest rate of MLF with tenor of 6 months by 10 basis points to 3.25% in November 2015, and increased the size of medium-term loans extended to commercial banks by some RMB180 billion in the fourth quarter last year.

Asset markets

During the review period, the Mainland stock markets remained volatile. Following the market turbulence last summer, the Shanghai A-share index rebounded initially in October and November, but then plummeted by 18% in the first half of January (Chart 2.16). In order to stabilise the market, the China Securities Regulatory Commission (CSRC) introduced a circuit-breaker system in early-January, which however was suspended later on as it failed to meet the policy objective. Since the marked sell-offs last summer, stock valuations have already come down to a more reasonable level and leveraged trading activities were also much less pervasive. For instance, the outstanding size of margin financing came down significantly to an average of RMB883 billion in February from the peak of RMB2,300 billion last June. Informal margin financing also shrank markedly as the authorities stepped up efforts to mop up leveraged trading through unregulated channels.

Chart 2.16
Mainland China: Shanghai A-share index and margin financing



Margin financing outstanding (rhs)
Shanghai Stock Exchange A-share index (lhs)

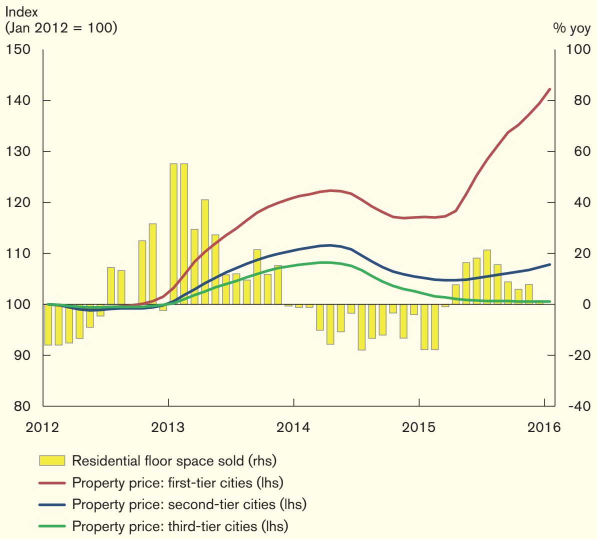
Sources: CEIC and HKMA staff estimates.

To facilitate direct financing of corporates, the CSRC resumed initial public offerings last November, lifting the suspension put into effect in July during the stock market crash. Several policy measures such as refining the listing system, conducting stress tests on securities and futures firms on a regular basis, and cracking down on informal and illegal trading activities, were also introduced to promote healthy and sustainable development of the stock market.

On the corporate bond market, there have been signs of overheating recently. The yield spread of 5-year AAA corporate bond over Ministry of Finance bond narrowed to less than 10 basis points in September 2015 before widening somewhat recently. The unusually low yield spread of corporate bonds has raised concern over the risk of mispricing of credit risk of bond issuers given deterioration in corporate earnings. Some investors even increased borrowing from the exchange repo market to leverage up their investment in corporate bonds. Box 2 assesses the risk of leveraged activities in the corporate bond market and the impact of a sharp correction in corporate bond prices on financial stability. Our findings suggest that given the small outstanding size of corporate bonds relative to the stock of aggregate financing and little bank exposure to corporate bonds, the systemic risk associated with mispricing in the corporate bond market should be limited.

In the property market, while market conditions continued to improve at national level, performance was mixed across different cities. During the review period, market transactions remained active, with the overall floor space sold continuing to expand in the fourth quarter but at a slower pace compared with previous quarter. On the price side, the overall house prices rose by 0.6% and 0.5% on a sequential basis in the third and fourth quarters respectively, underpinned by buoyant market conditions in higher-tier cities. In contrast, property prices in lower-tier cities remained largely unchanged during the period as oversupply problems continued to linger.[7] (Chart 2.17)

Chart 2.17
Mainland China: house prices and floor space sold



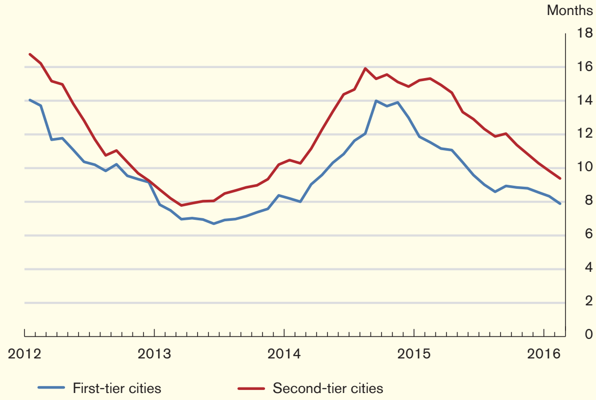
Sources: NBS, Wind and HKMA staff estimates.

The divergence in property market performance between higher- and lower-tier cities is likely to persist on different demand and supply conditions. In particular, while housing inventory in first- and second-tier cities fell to low levels in recent months (Chart 2.18), weak demand and oversupply issues remained in lower-tier cities. Some market research suggests that the inventory to sales ratio decreased in third-tier cities from the beginning of last year but remained at high levels of around 20 months at the year end.[8]

[7] House prices in 1st-tier, 2nd-tier and 3rd-tier cities increased by 1.6%, 0.5% and stayed unchanged from the previous month in December respectively.

[8] Estimate is from "China real estate market: 2015 summary" by China Index Academy.

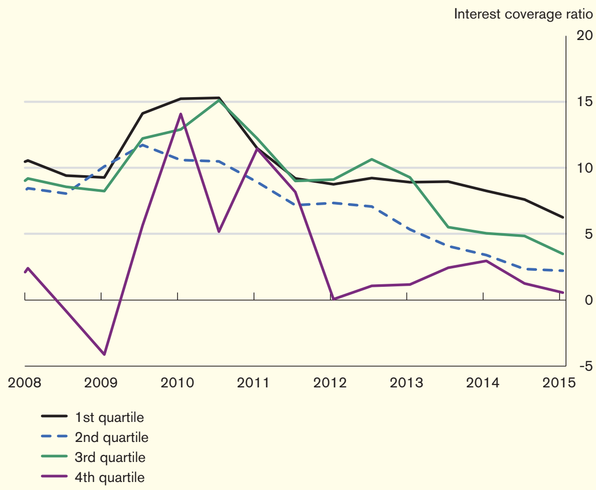
Chart 2.18
Mainland China: housing inventory to sales ratio



Sources: Wind and HKMA staff estimates.

In the near term, lingering oversupply issues in lower-tier cities will inevitably exert pressures on developers operating in these markets, especially those with weak financial positions. Listed company data show that financial viability of smaller developers was particularly low, with the interest coverage ratio of some even slipping below one (purple line in Chart 2.19). This may suggest that the real estate industry will likely see further consolidation in periods ahead. Latest data show that in the first nine months of 2015, merger and acquisition deals of private developers totalled more than US$4.5 billion.

Chart 2.19
Mainland China: interest coverage ratio of listed property developers by asset size

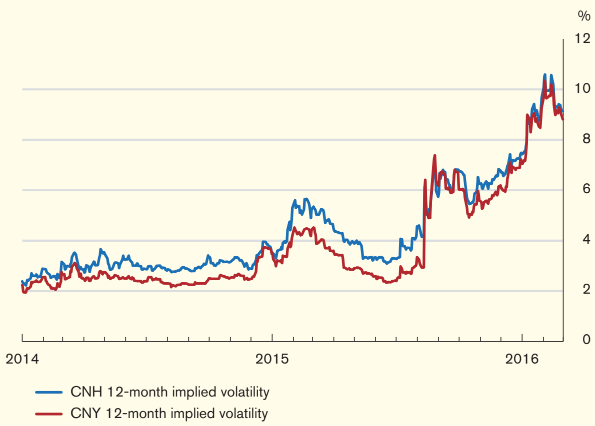


Sources: Bloomberg and HKMA staff estimates.

Exchange rate and money market

Following the refinement to the fixing mechanism of the central parity rate in August last year, the renminbi exchange rate has become more market driven. The renminbi depreciated by 4.5% against US dollar in 2015, and weakened by 1.3% in January before stabilising in February this year. With the renminbi exchange rate becoming more flexible, market participants have expected higher exchange rate volatility over the near term (Chart 2.20).

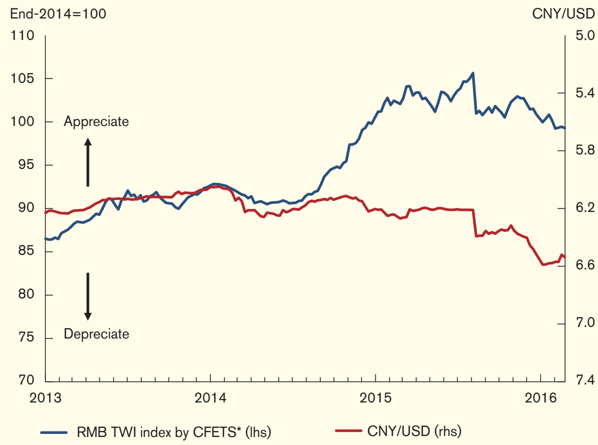
Chart 2.20
Mainland China: Option implied volatility of the CNY and CNH exchange rates



Source: Bloomberg.

Despite increased volatility in the bilateral exchange rate of the renminbi against the US dollar, the renminbi has remained relatively stable against the currencies under the trade weighted index (TWI) basket. The renminbi TWI, which captures the movement of the renminbi against the currencies of 13 major trading partners, moved within a narrow range for most of the time in 2015, and registered a mild depreciation of 0.37% from end-2014 to February 2016 (Chart 2.21).

Chart 2.21
Mainland China: RMB trade weighted index and the CNY exchange rate



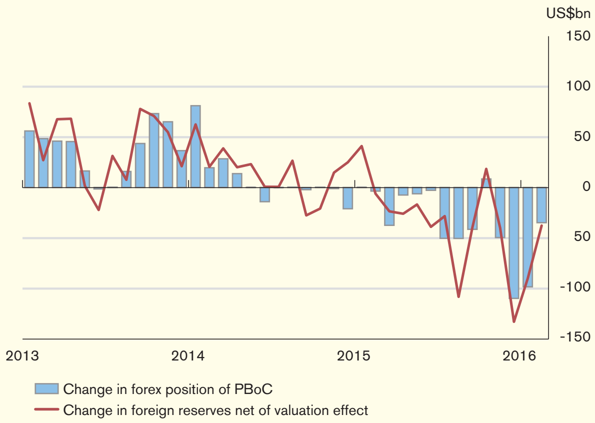
* Data before December 2015 is estimated based on the weights of TWI basket.

Sources: CEIC, Bloomberg and HKMA staff estimates.

With a relatively steady central parity rate, the CNY exchange rate strengthened by 0.5% in February to close at 6.5472 at the end of the month. While the CNY exchange rate could become more volatile in the near term, Mainland's relatively strong fundamentals such as decent current account surplus, faster economic and productivity growth relative to other major economies, and ample foreign reserves would support the renminbi exchange rate over the medium term.

Amid a weaker renminbi and less certain economic outlook, outflow pressures increased during the second half of 2015. To stabilise the renminbi exchange rate, the foreign exchange position of the PBoC shrank by US$350 billion in 2015, which largely explained the decline of some US$400 billion in official reserve assets net of valuation effect (Chart 2.22).[9] Outflow pressures appear to have stabilised in February, with the decline in official foreign reserves narrowing to US$29 billion from US$99 billion in January. The decrease in foreign reserves at the start of the year was partly due to seasonal factors as Mainland residents converted renminbi into foreign currencies subject to a quota of US$50,000 per person per year. Some Mainland companies also chose to pay off their US dollar debt at the beginning of the year to reduce exposure to exchange rate risk. As the effect of these activities dissipates, together with the recent softening of the US dollar, outflow pressure is likely to ease in the coming months.

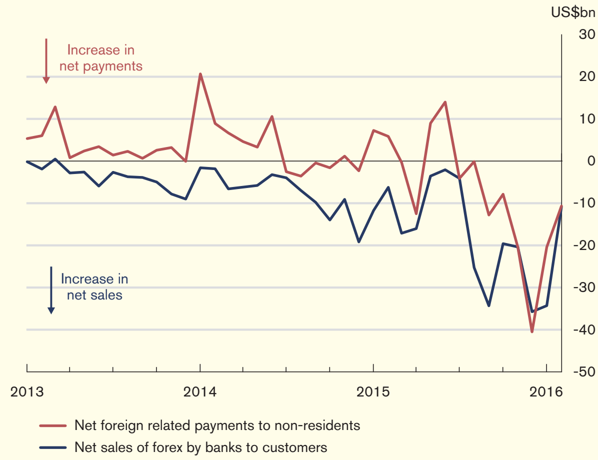
Chart 2.22
Mainland China: Changes in PBoC's foreign exchange position and foreign reserves



Sources: CEIC, Bloomberg and HKMA staff estimates.

While the increase in outflow pressure over the past few months has been partly driven by cross-border outflows, it also reflected asset-liability rebalancing by Mainland residents. In terms of cross-border flows, foreign related payments and receipts show that net payments to non-residents not related to trade and foreign direct investment (FDI) reversed from net inflows in the first half of 2015 to net outflows in the second half, resulting in a marked increase in net sales of foreign exchange by banks to customers (Chart 2.23).

Chart 2.23
Mainland China: Net foreign related payments to non-residents and net sales of forex by banks not related to trade and FDI



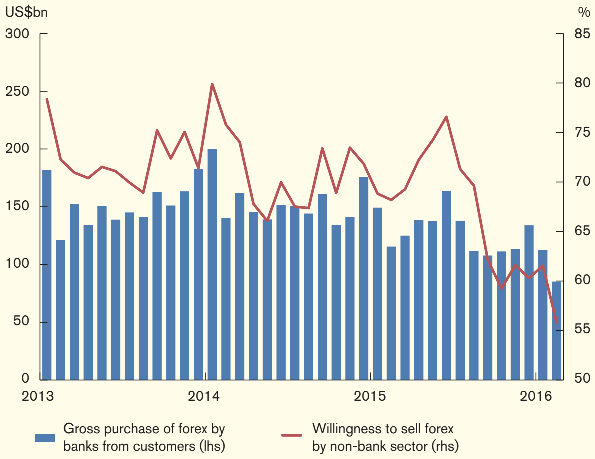
Sources: SAFE and staff estimates.

Given that portfolio investment flows are still subject to the quotas set under the QDII and QFII schemes, the size of potential cross-border flows through the portfolio investment channel should be limited. In fact, the asset-liability rebalancing by Mainland residents plays a role in explaining the increase in outflow pressure lately. Over the past few years, the trend of renminbi appreciation provided a strong incentive for residents to hold most of their assets in terms of renminbi, while business owners increased borrowing in US dollar to benefit from the low interest rates. Recently, the less certain economic outlook and increased volatility in the renminbi exchange rate have prompted Mainland residents to reallocate their assets by holding more foreign currencies and less renminbi so as to achieve a more balanced portfolio. This can be seen from the increase of US$371 billion in gross sales of foreign exchange by banks to customers during 2015. Part of the foreign exchange purchased by residents has been recycled back to the domestic banking sector.

[9] The decline in the headline official foreign reserves was US$513 billion in 2015.

Meanwhile, Mainland residents are more inclined to retain their foreign currency receipts and delay the conversion back to renminbi, with the gross purchase of foreign exchange by banks from customers shrinking by US$300 billion in 2015, the largest decline on record (Chart 2.24). It is believed that a substantial part of these foreign currency receipts has been placed with overseas banks as offshore deposits.

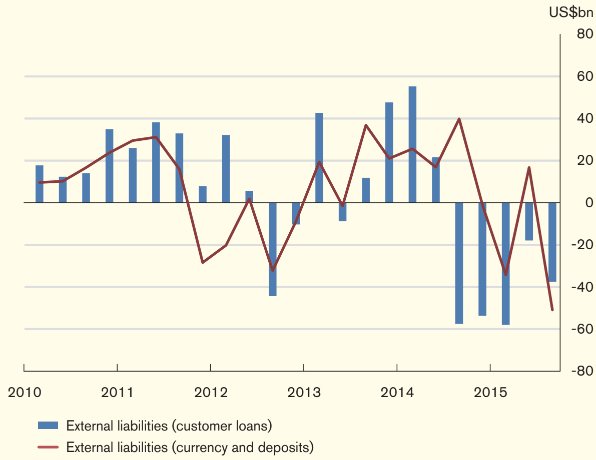
Chart 2.24
Mainland China: Gross purchase of foreign exchange by banks and willingness to sell foreign exchange by the non-bank sector[10]



Sources: CEIC and HKMA staff estimates.

Apart from achieving a more balanced portfolio on the asset side, non-bank Mainland entities have also reduced their foreign currency liabilities by paying off external debt. Balance of payments (BoP) statistics show that the Mainland non-bank sector cut back their overseas borrowing by some US$110 billion during the first three quarters of 2015 to reduce exposure to exchange rate risk given their earnings are mainly denominated in renminbi (Chart 2.25). Reflecting reduced demand for foreign currency loans, Mainland banks also trimmed down their external liabilities to foreign counterparts.

Chart 2.25
Mainland China: BoP external liabilities: customer loans versus currency and deposits



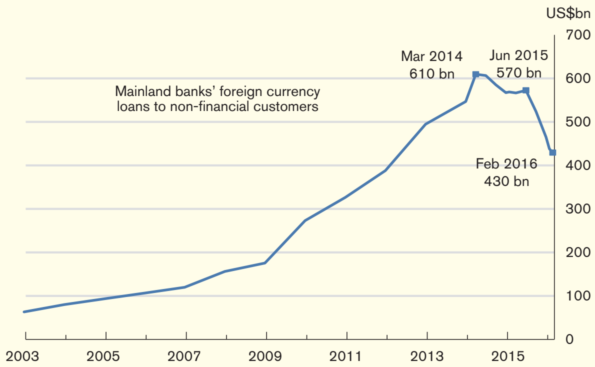
Sources: NBS, CEIC and HKMA staff estimates.

Banking statistics show that Mainland firms cut back their foreign currency borrowing following RMB depreciation in the second half of last year. This can be seen from the decline of foreign currency loans extended by Mainland banks to non-financial entities, by US$140 billion between June 2015 and February 2016 (Chart 2.26). Comparing to the peak in March 2014, domestic foreign currency loans have declined by 30% by the end of February this year. While in the offshore market, US dollar loans extended by banks in Hong Kong to their non-bank customers on the Mainland exhibited a similar trend, shrinking by US$7 billion, or 12%, during the second half of 2015 (Chart 2.27).[11]

[10] Willingness to sell foreign exchange by the non-bank sector is defined as the ratio of foreign currency purchase by banks from customers relative to the non-RMB foreign related receipts by banks on behalf of their customers.

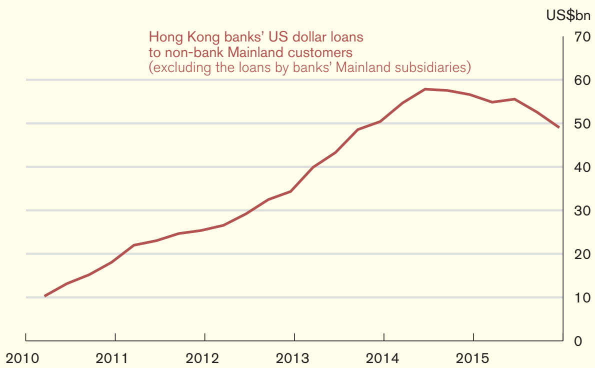
[11] According to BIS international banking statistics, banks in Hong Kong provided about one-third of the external dollar credit to the non-bank sector in Mainland China.

Chart 2.26
Mainland China: Domestic foreign currency loans to non-financial customers



Sources: PBoC and staff estimates.

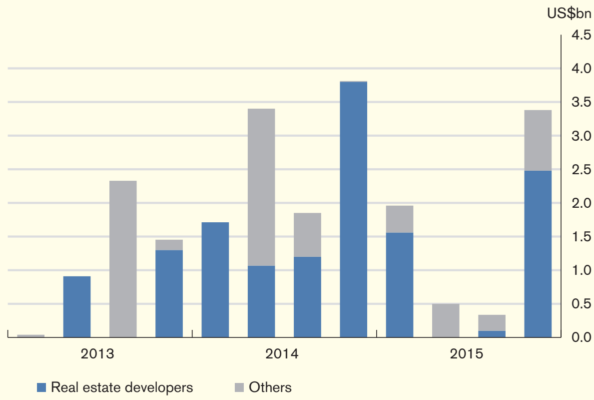
Chart 2.27
Mainland China: US dollar loans by Hong Kong banks to Mainland non-bank sector



Sources: HKMA and staff estimates.

Mainland firms not only reduced their foreign currency borrowing in both onshore and offshore markets, but also increased the pace of early redemption of their US dollar bonds issued in the offshore market. Based on corporate announcements made by listed company in Hong Kong, Mainland firms redeemed US dollar bonds worth of US$3.4 billion before maturity in the fourth quarter of last year, which is one of the quarters with largest early redemption in recent years. Breakdown by issuer shows that most of the early redemption is exercised by Mainland real estate developers, who have actively tapped US dollar funds in the offshore bond market to benefit from low US dollar interest rates over the past few years (Chart 2.28).

Chart 2.28
Mainland China: Early redemption of offshore US dollar bonds by Mainland firms listed in Hong Kong

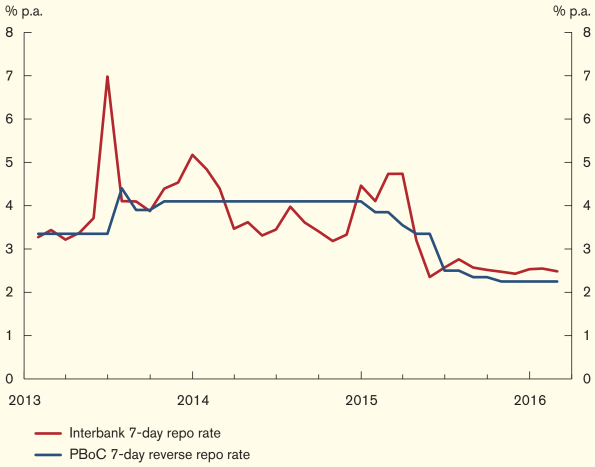


Sources: HKEx and staff estimates.

Despite increased outflow pressures, liquidity conditions remained largely stable in the interbank market. The PBoC injected liquidity into the banking system through reverse repo and other quantitative instruments such as short-term liquidity operation (SLO) and medium-term lending facility (MLF) to keep short-term interest rates stable.[12] Both 7-day repo rate and 1-month Shanghai Interbank Offered Rate (SHIBOR) traded within a narrow range for most of the time in January and February. To lower bank funding costs, the PBoC cut the interest rate of 7-day reverse repo by 10 basis points to 2.25% in October last year, which is below the interbank repo rate of comparable tenor (Chart 2.29).

[12] During January, the PBoC injected a net amount of RMB1.2 trillion into the banking system through short-term reverse repo and extended medium-term loans of a net amount of RMB610 billion to banks through MLF to meet the seasonal liquidity demand before the Lunar New Year.

Chart 2.29
Mainland China: Interbank 7-day repo rate and PBoC reverse repo rate



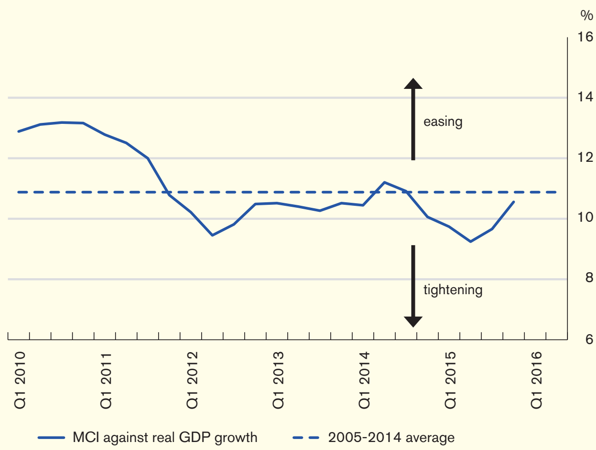
Sources: CEIC and HKMA staff estimates.

Fiscal and monetary policy

The 2016 Government Work Report highlighted that one of the major tasks of this year is to tackle major structural problems through supply-side reforms, including cutting industrial capacity, destocking property market, de-leveraging, lowering corporate costs and improving weak links in the economy. While restructuring would benefit growth in the long run, the government is also well aware of its short-term negative impact on growth. To strike a balance between restructuring and stabilising growth, the authorities will adopt a prudent monetary policy that is flexible and appropriate as well as a more proactive fiscal policy this year.

On the monetary policy front, Zhou Xiaochuan, governor of the PBoC, reportedly characterised the current monetary policy stance as "prudent with a slight easing bias", with M2 growth being targeted slightly higher at around 13% in 2016 from 12% in 2015 according to the 2016 Government Work Report. During the review period, the central bank had accelerated the targeted measures to lower the financing costs for enterprises and support infrastructure spending while refraining from across-the-board balance sheet expansion. For instance, starting from last October, the coverage of Pledged Supplementary Lending (PSL), a relending facility, has been broaden to all policy banks to support the financing of key infrastructure projects such as slum reconstructions and water conservancy. Meanwhile, in addition to the cut of benchmark 1-year lending and deposit rates by 25 basis points to 4.35% and 1.5% respectively and the required reserve ratio (RRR) by 100 basis points in total to 17% and 15% for large banks and small banks respectively during the review period, the PBoC also lowered RRR by an additional 50 basis points for financial institutions providing sufficient lending support to small and micro-sized enterprises and the agricultural sector. To improve the credit market efficiency, the PBoC also removed the ceiling of banks' deposit rates, which completed the last step of interest rate liberalisation. Our in-house monetary condition index indeed pointed to some signs of loosening in recent periods (Chart 2.30). In particular, the effective bank lending rate declined further by 16 basis points in the fourth quarter in real terms, while the increase in real effective exchange rate also slowed notably in recent months.

Chart 2.30
Mainland China: Monetary condition index



Sources: CEIC and HKMA staff estimates.

On the fiscal policy front, the authorities also stepped up fiscal spending in the second half of 2015 in an effort to stabilise the economy. To facilitate the supply-side economic reform and stave off downward pressures on growth, policy-makers have placed more emphasis on cutting tax to boost both demand and effective supply and will further reduce taxes and fees for enterprises and individuals by more than RMB500 billion this year, in addition to allocating larger outlays for infrastructure projects such as railway and road construction. As a result, the government increased the budget deficit from 2.3% of GDP in 2015 to 3% of GDP in 2016.

The overall risks of local government debt remained largely contained, particularly given that the growth rate of local government debt slowed noticeably in 2015. For instance, the ceiling of local government debt for 2015 was set at RMB16 trillion, less than 4% increase from the RMB15.4 trillion outstanding local government debt at end-2014. That said, funding pressures of local governments had increased as land sales revenue fell by 21.4% in 2015. Detailed analysis shows that some local governments even recorded declines in overall fiscal revenue amid the recent economic slowdown. Nonetheless, the authorities pledged to further expand the local government debt-swap program in 2016, which would help reduce the refinancing pressures and interest burden of local governments.[13]

[13] For example, the average interest cost of debt under the RMB3.2 trillion debt-swap program in 2015 was reduced sharply from around 10% per annum to around 3.5% per annum, suggesting a reduction in interest burden of more than RMB200 billion per year for local governments.

Box 1
Analysis on service sector developments in Mainland China

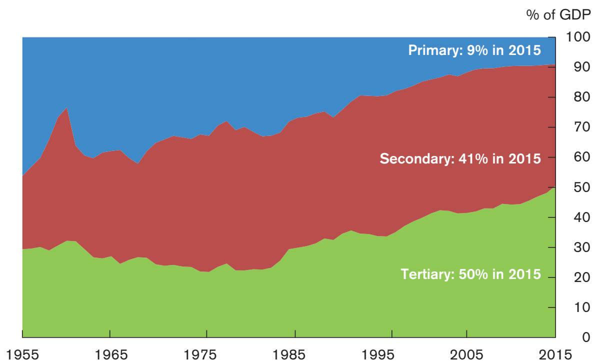
Introduction

The service sector has been expanding very fast over the past decades in Mainland China and has overtaken the manufacturing sector as the most important growth engine and employment provider. However, less is known about the patterns of development among the segments of the service sector. In view of this, this box takes a closer look at the relative performance of different segments of the service sector in terms of output growth and job creation and compares it with international experience. Potential drivers and bottlenecks for service sector development are also discussed.

Fast expansion of the service sector on the Mainland

The Mainland service sector has started to boom since the early 1980s, as the authorities started to open up the economy and implement economic reforms. After three decades of growth and development, the service sector has overtaken manufacturing to become the most important value-creation sector of the Mainland economy in 2012, with the share in GDP increasing from over 20% to above 50% (Chart B1.1).

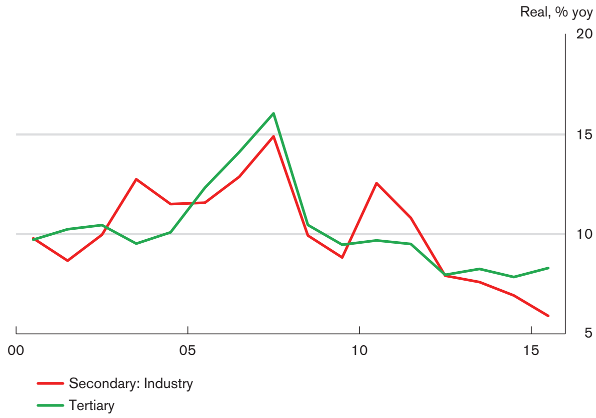
Chart B1.1
Share in Mainland GDP by industry



Sources: CEIC and HKMA staff estimates.

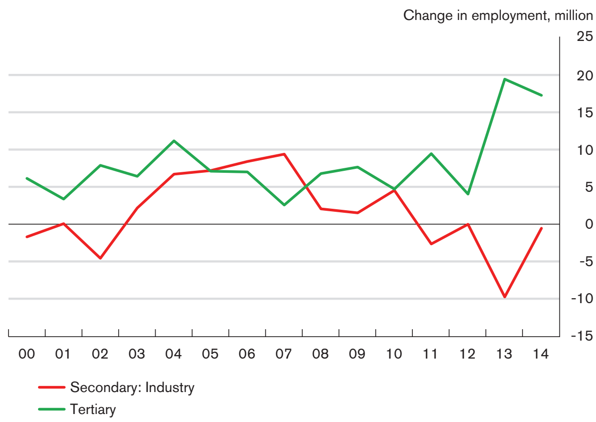
The performance of the service sector remained robust amid the recent economic slowdown. In particular, services continued to hold up well and grew at around 8% per year in real terms after a temporary deceleration in 2010–2011(Chart B1.2). In comparison, growth of the manufacturing sector has slowed significantly since the global financial crisis to 6% year on year recently. Echoing the strong growth of services, the number of net new jobs in the service sector has also picked up noticeably since 2012, which offset the declines in manufacturing employment (Chart B1.3).

Chart B1.2
Services and industry growth: 2000–2015



Sources: CEIC and HKMA staff estimates.

Chart B1.3
Net new jobs in services and industry: 2000–2014



Sources: CEIC and HKMA staff estimates.

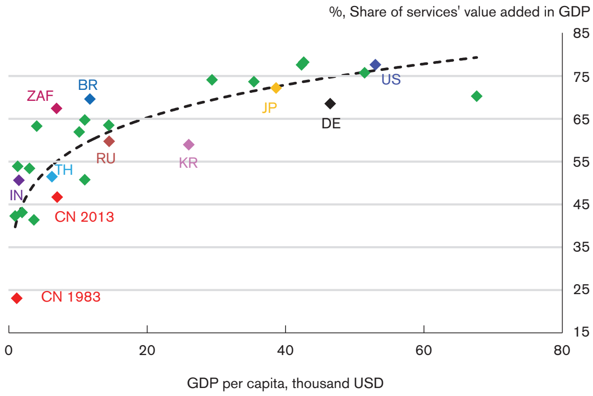
Key growth drivers for the service sector on the Mainland

The development of the service sector on the Mainland is closely related to the country's level of economic development, urbanisation, and market liberalisation. On the demand side, as per capita income rises, households' basic need for food and shelter shifts towards non material goods, such as personal services and entertainment. Fast economic development also requires the support from a well-functioning financial system to mobilise savings and facilitate investment. In addition, unparalleled pace of urbanisation on the Mainland has shifted more than half of the population away from farming, and given rise to hundreds of cities with more than 1 million residents. A growing agglomeration of people in the urban area with improving living standards generates huge demand for trade, logistics, housing as well as social services.

On the supply side, market liberalisation in the service sector also greatly boosted productivity. In particular, service sector reforms aiming to abolish monopolies, eliminate barriers to entry, and commercialise state-owned enterprises have not only improved the sector's efficiency markedly, but also increased both the width and the depth of service products available.

Similar to the experience in many other economies, the service sector in Mainland China expands as per capita income improves. While cross-country comparison suggests that less developed economies normally tend to have an inferior service sector, the development level of the service sector in Mainland China remained below the emerging market average despite the fast growth in the sector (Chart B1.4). In particular, compared with economies with a similar level of GDP per capita, such as South Africa and Thailand, the Mainland had a smaller service sector in terms of share in GDP. Even with a much lower level of per capita GDP, India's output share of the service sector is similar to that of Mainland China.

Chart B1.4
Service sector development and per capita GDP: 2013



Sources: CEIC, World Bank and HKMA staff estimates.

The uneven levels of development within the Mainland service sector

Although the past decades had witnessed tremendous growth of the Mainland service sector as a whole, different segments of services exhibited distinct levels of developments. For instance, benefiting from the ongoing financial liberalisation and fast urbanisation, *financial intermediation* and *wholesale & retail trade* registered the fastest pace of expansion, on average at around 15% per year during the period of 2005–2012 (Table B1.A). *Scientific research* and *leasing & commercial services* also grew fast at around 13% and 12% per year respectively on increased demand for services supporting business activities. In comparison, some segments such as *transport, storage & post, accommodation & catering* and *IT, computer services & software*, on average expanded at the slowest paces of 8.6%, 8.4% and 7.6% each year respectively.

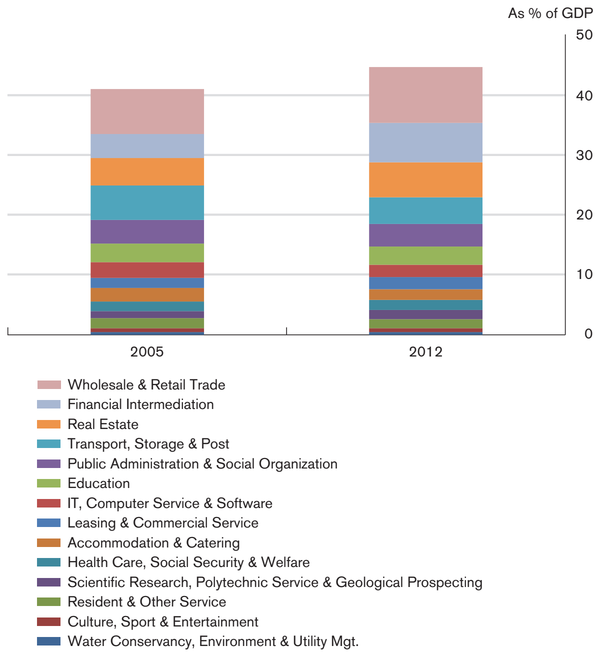
Table B1.A
Growth of service segments and their contributions to GDP growth: 2005–2012

	Growth rate (%, annualised)	Contribution to growth (%)
GDP	**10.6**	**–**
Secondary: Industry	**11.5**	**42.6**
Tertiary	**11.2**	**45.1**
Financial Intermediation	**14.8**	**7.2**
Wholesale & Retail Trade	**14.7**	**11.4**
Scientific Research, Polytechnic Service & Geological Prospecting	**12.9**	**1.6**
Leasing & Commercial Service	**11.6**	**2.0**
Real Estate	**10.6**	**4.9**
Health Care, Social Security & Welfare	**9.9**	**1.4**
Education	**9.8**	**2.8**
Public Administration & Social Organization	**9.8**	**3.7**
Culture, Sport & Entertainment	**9.7**	**0.6**
Resident & Other Service	**9.6**	**1.4**
Water Conservancy, Environment & Utility Mgt.	**9.2**	**0.4**
Transport, Storage & Post	**8.6**	**4.3**
Accommodation & Catering	**8.4**	**1.7**
IT, Computer Service & Software	**7.6**	**1.8**

Sources: CEIC, China Statistical Yearbook of the Tertiary Industry (varied years) and HKMA staff estimates.

As a result, the shares of *wholesale & retail trade* and *financial intermediation* in GDP increased from 7.5% and 4% to 9.3% and 6.6% respectively during the period of 2005–2012 (Chart B1.5). *Real estate management* had also gained importance amid fast economic growth and urbanisation, with its share in GDP expanding from 4.6% to 5.8% during the same period. Due to relatively slower growth, the shares in GDP of some segments were little changed over time or even shrank, such as *transport, storage & post, accommodation & catering* and *IT, computer services & software*.

Chart B1.5
Share in Mainland GDP by service segment



Sources: CEIC, China Statistical Yearbook of the Tertiary Industry (varied years) and HKMA staff estimates.

With their varied shares in GDP and paces of expansion, different segments of services have exhibited distinct impact on output growth. For instance, *wholesale & retail trade* and *financial intermediation* were the most important value creators for the period of 2005–2012, on average contributing 11.4% and 7.2% of GDP growth each year.

In terms of job creation, the share of service sector employment in total employment rose to around 36% from about 31% during the period of 2005–2012, suggesting an annual average growth rate of 2.4% (Table B1.B). Among all segments, *wholesale & retail trade* dominated job creation, with its share in total employment increasing to 11.7% in 2012 from 7.4% in 2005. The shares of the employment of some segments such as *education, public administration,* and *transportation, storage & post* in total employment were also prominent, but declined over time, likely due to the ongoing market liberalisation which greatly boosted productivity and reduced labour redundancy. In contrast, while some business-related segments such *as scientific research, IT, computer services & software* and *leasing & commercial services* enjoyed the fastest expansion paces in employment, their shares in total employment were relatively small.

Table B1.B
Growth of service segment employment and their shares in total employment: 2005–2012

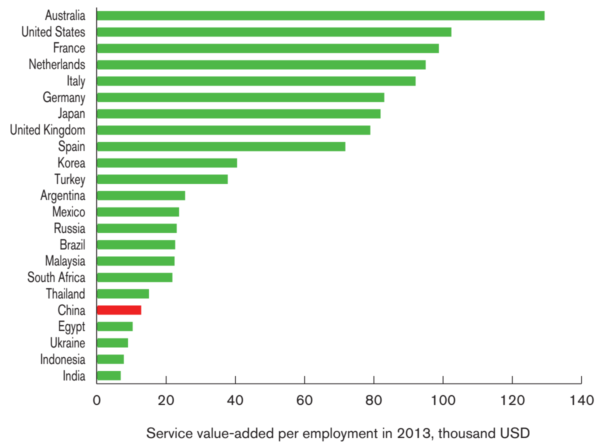
	Growth rate (% annualised)	share in total employment, 2005 (%)	share in total employment, 2012 (%)
Total employment	**0.4**	**–**	**–**
Manufacturing	**2.5**	**15.4**	**17.8**
Tertiary Industry	**2.4**	**31.4**	**36.1**
Scientific Research, Polytechnic Service & Geological Prospecting	9.0	0.8	1.5
IT, Computer Service & Software	7.7	0.7	1.1
Leasing & Commercial Service	7.7	1.3	2.1
Real Estate	7.4	0.7	1.2
Wholesale & Retail Trade	7.2	7.4	11.7
Resident & Other Service	6.8	1.1	1.6
Accommodation & Catering	4.4	1.6	2.1
Financial Intermediation	0.5	1.3	1.3
Water Conservancy, Environment & Utility Mgt.	0.2	0.7	0.7
Culture, Sport & Entertainment	0.0	0.6	0.5
Transportation, Storage & Post	-0.2	2.8	2.7
Health Care & Social Security & Welfare	-0.4	1.9	1.8
Public Administration & Social Organization	-3.8	5.1	3.8
Education	-4.2	5.4	3.9

Sources: CEIC, China Statistical Yearbook of the Tertiary Industry (varied years) and HKMA staff estimates.

Service productivity in Mainland China: relatively low but with room to improve

Despite the fast expansion, the Mainland service sector suffers a relatively low level of labour productivity. Cross-country comparison suggests that the productivity of the Mainland service sector was much lower even than other major emerging economies, such as Russia, Brazil, and South Africa (Chart B1.6). On one hand, a low level of labour productivity may reflect the fact that the production technology of the Mainland service sector remains largely labour intensive at the current development stage. On the other hand, the productivity gap between Mainland China and other major emerging countries may suggest that the domination of state-owned enterprises in the service sector has constrained productivity from further improving because of limited entry or competition. As labour productivity of the service sector is still below that of the manufacturing sector, Mainland's economic growth will likely slow during its transition from investment- and manufacturing-led to consumption- and service-led economy.

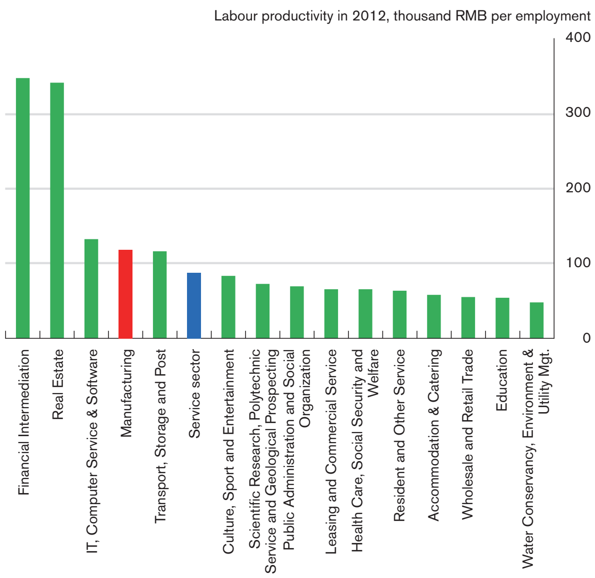
Chart B1.6
Cross-country comparison of service sector labour productivity: 2013



Sources: World Bank and HKMA staff estimates.

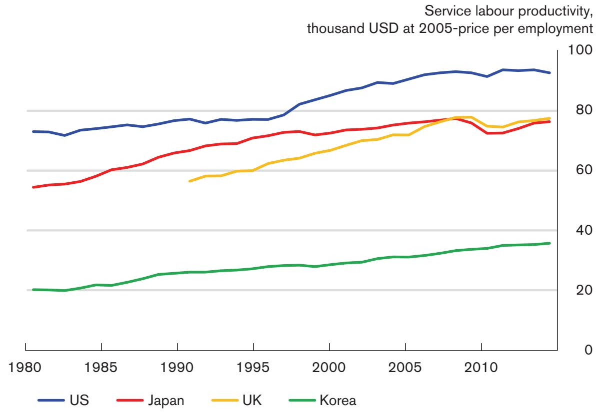
That said, the relatively low level of productivity also means that there is plenty of room to improve the Mainland service sector productivity over the medium term. First, there are some segments exhibiting much higher labour productivity than the manufacturing sector, such as *financial intermediation* and *real estate* (Chart B1.7). Should these segments continue to expand, the overall productivity of the service sector will likely improve. Second, Mainland China may continue to benefit from cross-country technological spillovers should the service sector be further opened up. Indeed, international experience suggests that service sector labour productivity tends to improve over time (Chart B1.8).

Chart B1.7
Labour productivity of the service and the manufacturing sectors: 2012



Sources: CEIC and HKMA staff estimates.

Chart B1.8
Evolution of labour productivity of the service sector in selected economies

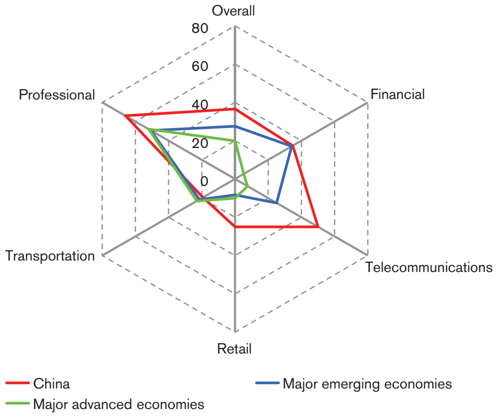


Sources: CEIC, World Bank and HKMA staff estimates.

Where are the bottlenecks for further developments of the Mainland service sector?

The fact that the Mainland service sector has lagged behind international standard in terms of size and productivity points to the existence of bottlenecks. To promote the modernisation and increase value-added content of the service sector, the Mainland needs to establish a level playing field for all service providers by breaking down regulatory barriers which protect vested interests. According to the World Bank Service Trade Restrictions Index, the degree of discrimination on the Mainland against foreign services or service providers is ranked the 27th highest out of 103 economies, higher than most major emerging economies. More specifically, foreign entry is found to be particularly restrictive especially in some service segments such as *telecommunications, retail,* and *professional services* (Chart B1.9). The fact that foreign competitors remain largely kept out of these sectors will inevitably hinder the technological spillovers from international market leaders. Meanwhile, limited private capital participation in certain service segments also staves off competition and lowers efficiency. In addition, deepening the human capital stock by establishing a better education system is also needed for speeding up the transition of the service sector. Currently, Mainland China is ranked relatively low in both average and expected years of schooling compared with other major emerging economies according to the Education Index published by the United Nations.

Chart B1.9
Services Trade Restrictions by segment



Note: Higher scores refer to greater restrictions of foreign entry.
Sources: World Bank and HKMA staff estimates.

Conclusion

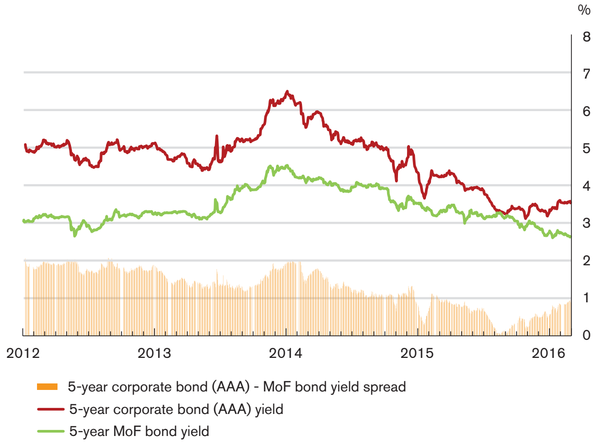
While the Mainland service sector has been expanding very fast over the last decades, different service segments have performed quite differently in terms of value addition and job creation, depending on how much they have benefited from the fast economic development and the ongoing urbanisation and market reforms on the Mainland. Given the relatively lower productivity of the service sector as a whole compared with the manufacturing sector, Mainland China will likely experience economic slowdown during its transition to a service-driven economy. That said, there is still room to improve the productivity of the service sector, should bottlenecks such as barriers to entry and limited human capital stock be successfully eliminated.

Box 2
Leveraged activities in the Mainland corporate bond market

Signs of overheating in the Mainland corporate bond market

Concerns over the risk of mispricing have increased in the Mainland corporate bond market. Despite deterioration in corporate earnings, the yield spread of corporate bonds has narrowed to unusually low levels in the second half of last year, with the bonds issued by corporates of prime credit ratings pricing almost at par with the bonds issued by the Ministry of Finance (MoF) in September 2015 (Chart B2.1).

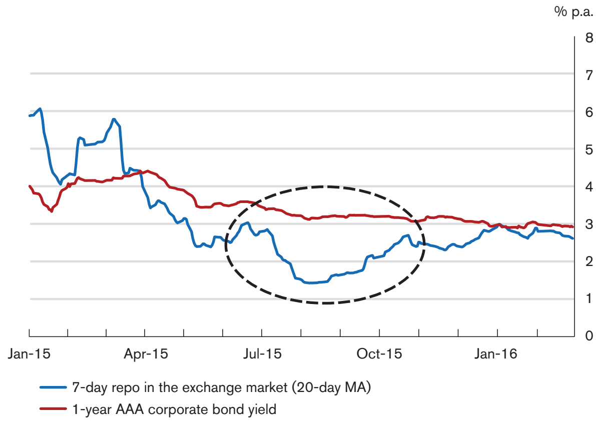
Chart B2.1
Corporate bond yield spread over MoF bond



Sources: WIND and HKMA staff estimates.

The marked narrowing of corporate bond yield spread has been partly driven by buoyant carry trade activities on the back of exceptionally low repo rates in the exchange market (Chart B2.2). The A-share market rout around the middle of last year has boosted the safe-haven demand for bonds, particularly for private-sector issuers that carry higher yields. With expectations of further rate cut by the People's Bank of China, some investors have used their bond holdings as collateral to borrow funds in the exchange repo market to leverage up their investment in corporate bonds. These leveraged activities have increased investors' exposure to interest rate risk. If repo rates surge on risk aversion or tightened liquidity conditions, this may lead to sharp correction in corporate bond prices, resulting in big mark-to-market losses to bond investors.

Chart B2.2
Repo rate in the exchange market versus corporate bond yield

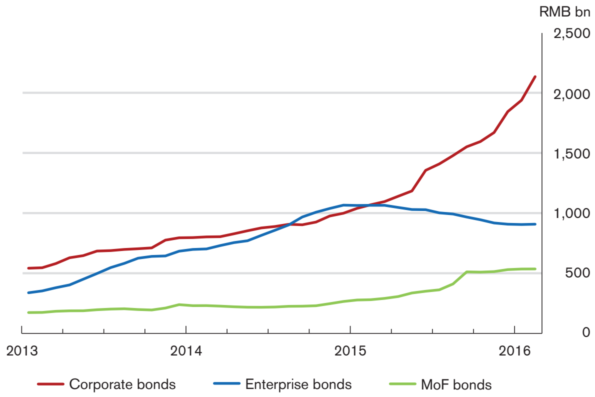


Sources: WIND and HKMA staff estimates.

Assessing leveraged activities in the corporate bond market

Reflecting strong demand, the outstanding size of corporate bonds increased markedly by 85% in 2015 to stand at RMB1.8 trillion at the year-end (Chart B2.3). Meanwhile, increased leveraged activities in the corporate bond market also boosted repo borrowing in the exchange market by more than one-third to RMB890 billion in 2015.

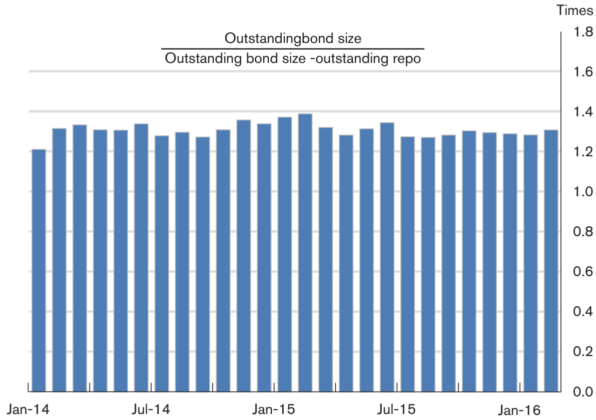
Chart B2.3
Outstanding size of bonds traded in the exchange market by type



Sources: WIND and HKMA staff estimates.

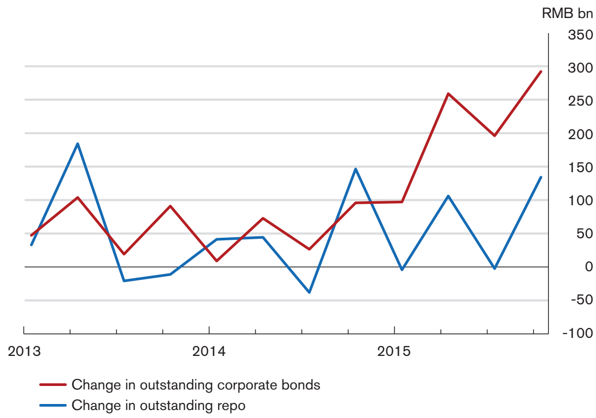
So far, overall leveraged activities are not excessive in the exchange bond market, which can be seen from the relatively stable leverage ratio, which is defined as [outstanding bond size / (outstanding bond size – outstanding repo)] (Chart B2.4). That said, the relatively strong co-movement between the recent expansion in the corporate bond market and repo borrowing offers some evidence that some investors may borrow short-term funds to leverage up their investment in corporate bonds (Chart B2.5).

Chart B2.4
Leverage ratio in the exchange bond market



Sources: WIND and HKMA staff estimates.

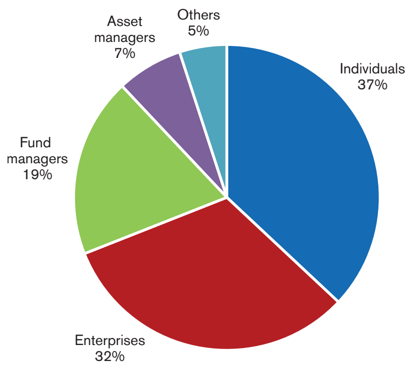
Chart B2.5
Change in outstanding corporate bonds and outstanding repos in the exchange market



Sources: WIND and HKMA staff estimates.

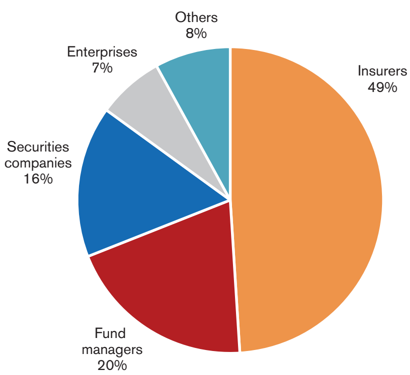
Most of the leveraged positions are taken by institutional investors, who are major repo borrowers and active investors in the corporate bond market. Major fund providers in the exchange repo market are individuals and non-bank corporates. Exchange data and private-sector estimates suggest that most of the lending in exchange repo market comes from individuals and enterprises, while non-bank financial institutions such as insurers, fund managers and securities firms are major repo borrowers that invest in corporate bonds and other high yield assets (Charts B2.6 and B2.7). While banks and high net worth retail investors are allowed to invest in corporate bonds traded on the exchange, there is little evidence to show that they have active participation in leveraged investment activities. Chart B2.8 illustrates the flow of funds among different participants in the exchange repo market and bond market.

Chart B2.6
Fund providers in the exchange repo market by type



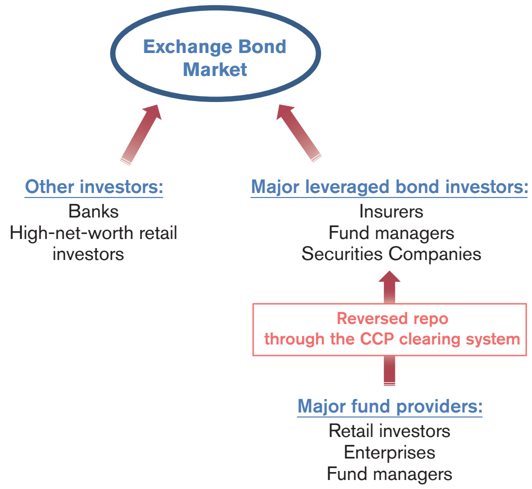
Source: Haitong Securities.

Chart B2.7
Borrowers in the exchange repo market by type



Source: Haitong Securities.

Chart B2.8
Flow of funds in the exchange bond market



Source: HKMA staff compilation.

Impact of a correction in corporate bond prices on financial stability

With the unusually low corporate bond yields, further deterioration in corporate earnings or increase in the number of bond defaults could trigger abrupt re-pricing of credit risk by investors, and the unwinding of leveraged positions will exacerbate the decline in corporate bond prices that could undermine financial stability.

Meanwhile, the systemic risk associated with a fall-out in the corporate bond market should be manageable given (i) its relatively small size; (ii) limited bank exposure to this segment; and (iii) limited linkage between exchange repo and interbank repo markets. Despite the rapid growth in the outstanding size of corporate bonds, it still accounts for a tiny share of 1.3% in the stock of aggregate financing. Meanwhile, investment in corporate bonds by banks is small relative to total banking assets. Balance sheet data of a number of listed Mainland banks show that their investment in corporate and enterprise bonds accounts for about 2% of total assets as of mid-2015. So far, leveraged activities in the corporate bond market have been largely funded by borrowing in the exchange repo market. Given that corporate bonds are not eligible to back borrowing in the interbank repo market, a sharp correction in corporate bond prices should have limited spill-over effect on repo rates in the money market.

That said, there are pockets of risk if a downturn in the corporate bond market results in sizable withdrawal of liquidity by fund providers that may render corporate bond investors with high leverage vulnerable.[14] Given that there is no liquidity backstop provided by the clearing house or central bank in the exchange repo market, heightened risk aversion or shift in risk appetite of fund providers could push up repo rates markedly that may result in a sell-off in the corporate bond market. Leveraged bond investors, particularly small securities firms and asset managers, could be hit hard by higher repo rates and lower bond prices, and may suffer big losses if they are forced to unwind their leveraged positions. Fund managers may also face increased redemption pressures if they suffer significant losses following the correction in corporate bond prices.

A downturn in the corporate bond market may also hinder corporates to raise funds through the direct financing channel. With more and more Mainland firms raising funds in the onshore bond market to benefit from low renminbi interest rates, a surge in corporate bond yields will increase the borrowing cost of bond issuers even with good credit quality, which is detrimental to business spending.

To contain leveraged activities in the corporate bond market, regulators have strengthened risk management in the exchange repo market and tightened rules on collateral used in repo borrowing. In late November last year, the China Securities Depository and Clearing Corporation Limited (CSDC) issued a circular to (i) tighten the haircut applied to corporate bonds for repo borrowing based on a number of new factors such as concentration risk of repo borrowing, liquidity and credit conditions in the exchange market, and (ii) enhance the mechanism in applying different haircuts to bonds used as collateral in the exchange repo market.

Following these tightened regulations, risk of overheating in the corporate bond market appears to have receded somewhat, while the recent increase in exchange repo rates has prompted some bond investors to unwind their leveraged positons. Reflecting this, corporate bond yields have picked up and their spreads over MoF bonds have widened recently.

14 The counterparty risk faced by fund providers should be limited given that repo transactions are conducted through central counterparty (CCP) clearing system managed by the exchange, which is the ultimate risk bearer if repo borrowers default. In general, the likelihood for the exchange to incur such losses is small because: (i) corporate bonds (including issuers) qualified as collateral must be of AA rating or above that helps limit the default risk faced by the exchange; and (ii) a significant haircut (e.g. 5–30% depending on credit rating and guarantee status of the bond) is applied to corporate and enterprise bonds used as collateral, which is also subject to daily adjustment based on the volatility of their market values.