### 1. The Global Financial Environment

As advanced economy banking systems have continued to build resilience, risks associated with broader financial market developments have attracted more attention. Market volatility has increased over the past six months, albeit from low levels. Divergent economic and monetary policy outlooks in the major advanced economies have contributed to sharp adjustments in some currency markets as the US dollar has appreciated against a broad range of currencies. In commodity markets, the fall in oil prices has added to downward pressure on oil exporters' currencies and widened yield spreads on bonds issued by oil producers. At the same time, sovereign bond yields have fallen to very low levels in the major advanced economies, leaving global financial conditions very accommodative overall. Search for yield behaviour continues to be evident in a range of markets.

While some portfolio rebalancing is the desired response to changing monetary policy settings and should be supportive of longer-run financial stability, the speed and magnitude of recent adjustments in some currency markets illustrate how such transitions can themselves be a source of risk, even when warranted and widely anticipated. To the extent that some end investors may not have appropriately priced liquidity risk to reflect a structural decline in market liquidity, there could continue to be some sharp adjustments, including in bank and corporate bond markets.

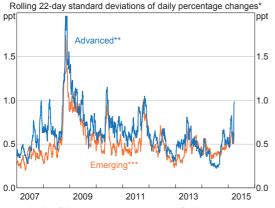
Banking systems have continued to be resilient to some sharp market movements. Since the financial crisis, banks have retreated from riskier activities, improved liquidity management and built up capital buffers. In the major advanced economies, bank profitability continues to be supported by improving asset quality, especially in the United Kingdom and the United States. In the euro area, where bank balance sheet repair has been more drawn out, the European Central Bank's (ECB's) comprehensive assessment has helped to improve confidence in the banking system's health. Nevertheless, headwinds to bank profitability in the major advanced economies remain. For some banks, net interest margins are compressed in the low interest rate environment and further regulatory fines and litigation costs for past misconduct are anticipated. For banks operating in emerging Asia, profits have continued to be supported by relatively wide interest margins and strong credit growth, but have moderated in recent months in line with softening economic conditions in the region.

#### Global Financial Markets

Much of the recent pick-up in currency market volatility from low levels (Graph 1.1) has been associated with divergent macroeconomic developments and hence diverging monetary policy outlooks in the major advanced economies. The ongoing economic recovery in the United States has contrasted with more modest economic growth and lower inflation expectations in the euro area and Japan. The Federal Reserve ended its bond purchasing program in October 2014 and financial markets assign a high probability to the Federal Reserve raising rates later this year, whereas during

the past six months the ECB and the Bank of Japan have increased monetary policy stimulus through balance sheet expansion (Graph 1.2).

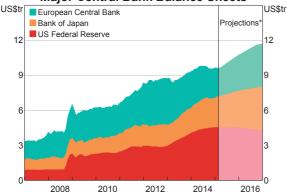
Graph 1.1 Exchange Rate Volatility



- \* Median of bilateral exchange rates against the US dollar
- \*\* Australia, Canada, euro area, Japan, New Zealand, Switzerland and United Kingdom
- \*\*\* Brazil, Chile, Colombia, India, Indonesia, Malaysia, Mexico, Philippines, Russia, South Africa, South Korea, Taiwan, Thailand and Turkey

Sources: Bloomberg; RBA

Graph 1.2
Major Central Bank Balance Sheets



 Based on central bank communicated intentions; assumes constant exchange rates

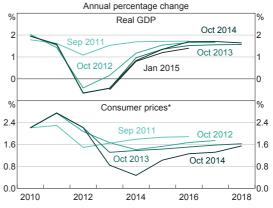
Sources: Bloomberg; RBA; Thomson Reuters

Commodity exporters have faced falling commodity prices on top of increased currency market volatility. In particular, the price of oil in US dollar terms has fallen by roughly 50 per cent since mid 2014, mainly driven by supply-side developments. In general, lower oil prices and the broader fall in commodity prices are likely to be positive for global financial stability

because they should boost overall world economic growth. However, this will be at least partly offset by the negative effect on some commodity-exporting countries, even though currency depreciations and stronger global economic growth should generally be supportive of exports in these economies.

The potential for financial stress in the euro area remains a risk to global financial stability. The euro area recovery has been slow, with realised outcomes for growth and inflation persistently below most medium- and long-term forecasts in recent years (Graph 1.3). Low rates of nominal income growth make balance sheet repair more difficult and could weigh on existing vulnerabilities in some euro area economies, particularly those where sovereigns remain highly indebted and where banking systems have not fully recovered. Even though the expansion of the ECB's asset purchase program and the fall in oil prices are expected to support economic activity, the ECB considers that risks surrounding the economic outlook for the euro area remain on the downside.

Graph 1.3
Euro Area Output and Prices Growth Projections



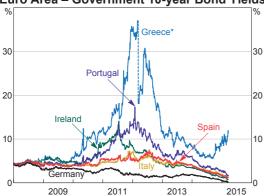
 The IMF last updated its World Economic Outlook euro area inflation forecast in October 2014
 Source: IMF

In Greece, concerns regarding the sustainability of sovereign debt resurfaced in the past six months, restricting sovereign and bank access to funding markets. Greek banks' liquidity was also strained by deposit outflows. In February, the Eurogroup broadly agreed to a four-month extension to a

financial assistance facility, contingent on the Greek Government submitting a plan for broader and stronger structural reforms and resisting the rollback of existing measures, with negotiations on the details of this agreement continuing. However, without a sustainable longer-term agreement, vulnerabilities remain. In the near term, Greek banks could continue to face pressures on their liquidity. In the longer term, reform efforts could stall both in Greece and in other euro area countries, while overly restrictive fiscal policy could further impede growth prospects in Greece and hamper balance sheet repair by Greek banks.

Contagion from Greece to other vulnerable euro area financial systems has so far been limited (Graph 1.4). In contrast to the situation in 2011, holdings of Greek sovereign debt are now more concentrated in the official sector, European banks have made progress with balance sheet repair and there have been further advances in the European framework for bank regulation. Bond prices in other periphery countries have also been supported by the announcement of additional policy stimulus by the ECB.

Graph 1.4
Euro Area – Government 10-year Bond Yields



\* Break on 12 March 2012 due to the first private sector debt swap Source: Bloomberg

Another market focus in Europe was the unexpected decision by the Swiss National Bank in January 2015 to abandon its policy of capping the franc-euro exchange rate ahead of the ECB's decision to expand its asset purchase program. As a result of the

subsequent sharp appreciation of the Swiss franc, some banks and investors sustained large losses and some retail trading platforms became insolvent. Further out, a few banks could face losses on Swiss franc-denominated loans to non-Swiss households and corporations. These loans have been common in central and eastern Europe. In Hungary, risks were mitigated by an earlier decision of the Hungarian Government to convert foreign currency housing loans into local currency. In Poland, however, almost half of mortgage lending is still denominated in foreign currencies.

Some emerging market currencies have depreciated substantially in the past three months, including the Turkish lira, the Russian rouble and the Brazilian real. These sharp depreciations have exacerbated existing financial system vulnerabilities in these economies. Wider risks might arise both from direct financial and economic exposures to these countries and from the potential for a more general rise in risk aversion to trigger broader market adjustments among emerging markets and oil exporters.

In Russia, sanctions imposed on some banks and corporations have impeded their access to international capital markets. Financial stability risks associated with the sanctions and currency weakness against the US dollar have been amplified by the more recent fall in the price of Russia's oil exports. Over the past six months, the rouble has depreciated by around 35 per cent against the US dollar. Russian authorities have drawn on Russia's foreign currency reserves to help Russian corporations to meet their foreign currency payment obligations; some Russian banks have also received rouble-denominated capital injections from the National Wealth Fund and Deposit Insurance Agency. Russian banks and corporations have considerable external debt obligations, potentially exposing international investors and creditors to corporate default. As at the end of September 2014, around US\$165 billion of Russian banks' and corporations' external debt (or 8 per cent of GDP) was due over 2015 and in the first three quarters of 2016.

While some banks have announced losses on Russian exposures, aggregate banking exposures to Russia appear to be small as a share of total assets (Table 1.1). Austrian banks appear to have the largest relative cross-border exposures to Russia and could, more generally, be vulnerable to a deterioration in asset quality in emerging central Europe. While broad onward contagion from Austrian banks appears unlikely given the size of banking system exposures, some German banks have recently faced losses on legacy exposures to an Austrian bank after the Austrian Government ruled out providing it with further capital support.

Since June 2014, the Turkish lira has depreciated by around 17 per cent against the US dollar. Much of Turkey's external debt is denominated in foreign currencies and intermediated through the banking sector. Substantial currency depreciations could therefore place pressure on any mismatch between the banking sector's foreign currency assets and liabilities, as well as on the ultimate borrowers' capacity to service their debts. While firms in some sectors could have limited natural hedging opportunities in the form of foreign currency revenues, financial hedging markets are relatively well developed in Turkey. Turkish banks' external creditors are mostly

European banks, but, in aggregate, these loans are typically small compared with the size of the respective banking systems.

In Brazil, lower prices of oil and other commodities have aggravated risks associated with an already slowing economy and high inflation. The depreciation of the Brazilian real by around 25 per cent over the past six months, while supportive of Brazilian exports, has added to inflationary pressures and falling commodity revenues have added to fiscal pressure. In light of these and other factors (associated with corporate misconduct) in Brazil, ratings agencies have downgraded some large Brazilian corporations recently. That said, measures of corporate and household indebtedness in Brazil are not high by international standards. Further, while around two-thirds of Brazil's external debt is denominated in foreign currencies, much of this appears to be naturally hedged with foreign currency revenue, and financial hedging markets are also well developed in Brazil.

While investors appear to have become somewhat more discerning about risks in recent months, search for yield behaviour is still evident in a range of markets. The low interest rate environment has remained supportive of prices across many

**Table 1.1: Banks' International Exposure**Claims by BIS reporting banks; ultimate risk basis; September 2014<sup>(a)</sup>

	Share of global consolidated assets (per cent)				
	Austria	Brazil	Greece	Russia	Turkey
Euro area	0.6	0.6	0.0	0.3	0.4
Austria	_	0.0	0.0	1.3	0.1
France	0.2	0.3	0.0	0.5	0.4
Germany	0.7	0.1	0.1	0.2	0.2
Greece	0.0	0.0	_	0.1	6.2
Italy	2.7	0.0	0.0	0.8	0.2
Portugal	0.2	1.5	0.1	0.0	0.0
Spain	0.1	3.7	0.0	0.0	0.5
Japan	0.0	0.2	0.0	0.1	0.1
Switzerland	0.5	0.7	0.1	0.2	0.2
United Kingdom	0.1	0.6	0.1	0.1	0.3
United States	0.1	0.5	0.1	0.2	0.2

(a) Latest available data used where September 2014 claims data not available Sources: BIS; BoJ; ECB; FDIC; SNB

international equity, property and fixed interest assets. In the United States, the increase in non-investment grade corporate bond spreads has mainly been for energy producers. US energy producers account for a significant share of non-investment grade bond issuance, of which some of the proceeds have been used to fund investment in relatively high-cost productive capacity. However, spreads on non-investment grade bonds issued by US corporations in other sectors remain low by historical standards. In the euro area, spreads on non-investment grade bonds have been broadly stable in net terms in the past six months (Graph 1.5). European leveraged bond issuance remains close to pre-crisis levels despite declining somewhat in the second half of 2014. However, overall issuance of higher-yielding debt by financial and non-financial corporations in the United States and the euro area has declined over the past six months (Graph 1.6), while investment grade issuance has picked up.

Since the financial crisis, the volume and share of credit intermediated in financial markets outside of the formal banking system have increased (Graph 1.7). This has reflected several developments, including responses by the banks to the crisis – both of their own choosing and as required by regulators – to de-risk their balance sheets, improve their liquidity positions and raise capital ratios. Low interest rates

Graph 1.5 **Higher-yielding Debt Spreads** Non-investment grade bps bps Euro area 2500 2 500 2000 2000 1500 1500 US (excl energy) 1 000 1000 500

\* B-rated bonds
Sources: Bank of America Merrill Lynch; Bloomberg; RBA

2007

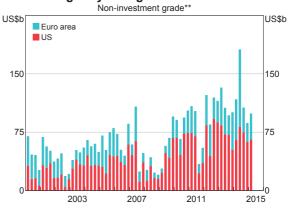
2011

2015

2003

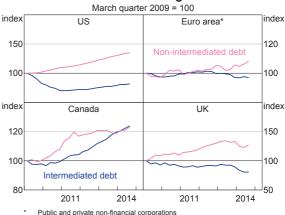
in the advanced economies over this period have increased investor demand for higher-yielding financial assets and encouraged bond issuance by corporations. As discussed in a recent Committee on the Global Financial System (CGFS) report, regulatory efforts have, as intended, increased the cost of market making by banks and shifted liquidity and some other risks to end investors.<sup>1</sup>

Graph 1.6
Higher-yielding Debt Issuance\*



- \* March 2015 is quarter-to-date
- \*\* Includes unrated bonds Sources: Dealogic; RBA

# Graph 1.7 Private Non-financial Corporations' Debt Funding



Sources: ECB; ONS; RBA; Statistics Canada; Thomson Reuters

1 CGFS (2014), 'Market-making and Proprietary Trading: Industry

<sup>1</sup> CGFS (2014), 'Market-making and Proprietary Trading: Industry Trends, Drivers and Policy Implications', CGFS Papers No 52. See also Cheshire J (2015), 'Market Making in Bond Markets', RBA *Bulletin*, March, pp 63–73.

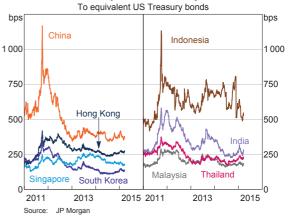
As policy interest rates rise and unconventional monetary policies are withdrawn, there could be periods of strained market liquidity, leading to a sharp adjustment in bond yields and heightened volatility in asset markets generally. Because the corporations issuing the debt have tended to do so at longer maturities, their rollover risk appears to be limited. The greater risk seems to lie with some asset managers and end investors, who may not be appropriately pricing liquidity risk.

A historically riskier asset class that could be vulnerable to swings in economic growth and monetary policies is commercial property. Commercial property prices have been bid up globally in the search for yield, but strong construction volumes and insufficient demand have led to high vacancy rates in some cities, including in commodity-exporting economies. Capital values of prime office property in Moscow and São Paulo fell sharply in 2014, where high construction volumes and soft demand have contributed to high vacancy rates.

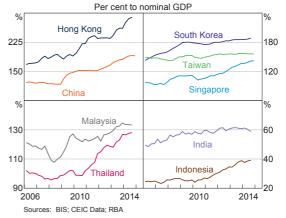
In recent years, economies in emerging Asia have generally experienced favourable external financing conditions associated with the low interest rate environment, particularly those economies with fixed or managed exchange rate regimes (Graph 1.8). The prolonged period of strong growth in indebtedness in several economies, through credit from intermediaries and/or non-intermediated finance, has increased vulnerability to an economic slowdown (Graph 1.9). Over the past six months, growth forecasts have generally been revised lower across the region.

Bond issuance by corporations in Asia has continued to rise strongly over the past six months, most notably in China, Singapore and Hong Kong. Outside of China, much of this corporate issuance has been external and denominated in foreign currencies, resulting in ongoing concerns about the risk of currency mismatch. In many Asian jurisdictions, this borrowing appears mainly to have been undertaken by firms in sectors with natural hedges in the form of

Graph 1.8
Asian Corporate Bond Spreads



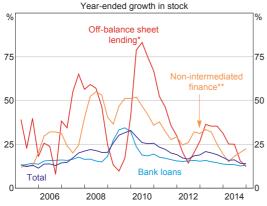
Graph 1.9 Asia – Total Credit



foreign currency revenue or assets. For firms that are not naturally hedged, the development of foreign currency derivatives markets and local currency bond markets in Asia has supported their ability to borrow in local currencies. Even so, as discussed in previous *Reviews*, liquidity in many secondary emerging bond markets remains low, which could amplify asset price dynamics in a market repricing scenario, such as in response to monetary policy tightening in the United States.

In China, debt has continued to grow, albeit at a slower pace, as the authorities have implemented measures to put non-bank and off-balance sheet financing on a more sustainable footing and economic growth has continued to slow (Graph 1.10). Concerns about the Chinese shadow banking sector include that exposures may be to marginal borrowers - particularly property developers - unable to obtain financing through the banking system, and that the sector has a number of linkages with banks that are not well understood. To address these risks, the authorities have recently put in place further policy measures to address aspects of the Chinese financial system that contributed to growth in the shadow banking sector. These measures include relaxing ceilings on deposit interest rates, draft regulations to constrain entrusted loans from being funded by debt or invested in most financial instruments, and the announced introduction of a deposit insurance scheme.

Graph 1.10
China – Total Social Financing



- \* Entrusted loans, trust loans and bank accepted bills
- \*\* Corporate bond and non-financial corporate equity issuance Sources: CEIC Data: PBC: RBA

Related to concerns about the debt build-up in China is recent property market weakness; residential property prices and sales volumes have continued to fall (Graph 1.11). Available evidence suggests that property developers are more highly geared than in previous property market downturns, adding to financial stability risks.<sup>2</sup> Some of this credit

Graph 1.11



may have been obtained through the shadow banking sector, given restrictions on bank lending to property developers. In addition, US dollardenominated debt issued by property developers in China increased in 2013 and 2014. Few of the largest real estate firms and property developers that have issued foreign currency-denominated debt appear to derive foreign currency revenue and the burden of servicing this debt could increase as interest rates rise in the United States and/or if the Chinese renminbi were to depreciate. More generally, the value of US dollar-denominated bond issuance by all non-financial corporations in China has increased sharply in recent years, but remains close to its decade average as a proportion of total corporate bond issuance (at around 10 per cent).

Another market where asset price growth has been associated with leverage is the Chinese equity market, where prices have risen sharply in recent months. Although some valuation metrics, such as price-to-earnings ratios, suggest that equity prices were previously undervalued, the recent increase in equity prices occurred despite little apparent change in market fundamentals. It was also supported by strong growth in margin lending, some of which appears to have been indirectly funded by banks through the shadow banking sector. The prevalence of margin lending could magnify the potential losses associated with a correction in equity prices

<sup>2</sup> See Cooper A and A Cowling (2015), 'China's Property Sector', RBA Bulletin, March, pp 45–54.

if lenders demand margin calls that investors are unable to meet. In January, the China Securities Regulatory Commission banned some brokerages from opening new margin trading accounts for a period of three months.

### Banking Systems in Advanced Economies

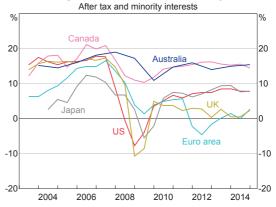
#### Bank profitability and capital

Despite improving in the second half of 2014, the profitability of large banks remains under pressure in some advanced economies (Graph 1.12), as reflected in banks' share price to book value ratios (Graph 1.13). Regulatory fines and legal expenses associated with past misconduct continued to weigh on bank profitability in the second half of 2014 and uncertainty remains over banks' ongoing exposure to litigation. For some banks, flatter yield curves associated with very low interest rates have compressed net interest margins.

Banks do not appear to have large direct exposures to the energy sector and commodity producers, so their profitability is unlikely to be affected by the falls in commodity prices. In recent years, banks have retreated from some commodity-related businesses – such as the physical ownership of commodities – in response to low profitability and regulatory action. Banks' direct exposures through lending to commodity producers also appear to be small in aggregate, including in Australia. That said, lower commodity prices could indirectly reduce profitability of business units in commodity-exporting economies as economic growth slows in these countries.

Most large banks in advanced economies increased their Common Equity Tier 1 (CET1) ratios over the second half of 2014. In addition, all the global systemically important banks (G-SIBs) that report fully phased-in Basel III CET1 ratios continued to exceed their regulatory minimums (Graph 1.14). Increases in advanced economy banks' capital ratios have largely been driven by retained earnings. Global

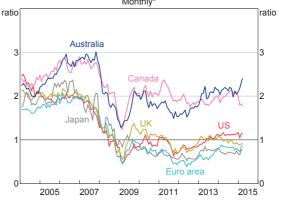
Graph 1.12
Large Banks' Return on Equity\*



Number of banks: Australia (4), Canada (6), euro area (41), Japan (4), UK (4) and US (18); adjusted for significant mergers and acquisitions; reporting periods vary across jurisdictions; estimates used where banks have not reported for December 2014

Sources: Banks' Annual and Interim Reports: Bloomberg: RBA: SNL Financial

Graph 1.13
Banks' Share Price to Book Value Ratios

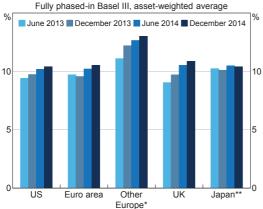


\* End of month; March 2015 observation is based on latest available data Sources: Bloomberg; RBA

issuance of Additional Tier 1 and Tier 2 convertible capital instruments increased in the second half of 2014, particularly from Asian banks replacing instruments no longer eligible as capital under Basel III. The aggregate Tier 1 capital shortfall for G-SIBs has fallen significantly since the end of 2013, though an aggregate total capital shortfall remains (Graph 1.15).

Euro area banks' efforts to improve their resilience have been supported by recent supervisory assessments. The results of the ECB's comprehensive

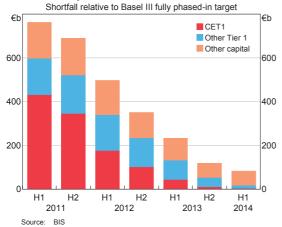
Graph 1.14
Advanced Economy G-SIBs' CET1 Ratios



- \* Credit Suisse, Nordea and UBS
- \*\* Japanese banks' CET1 ratios are based on transitional Basel III requirements

Sources: Banks' Annual and Interim Reports; Bloomberg; RBA; SNL Financial

Graph 1.15
Capital Shortfalls of G-SIBs



assessment of European banks were released in October 2014, prior to the ECB taking over as the prudential supervisor for the euro area's largest banks. The exercise included an asset quality review designed to enhance transparency, encourage balance sheet repair and build confidence, for example, by harmonising the definition of non-performing exposures across jurisdictions. It resulted in almost €50 billion in downward adjustments to asset carrying values. The stress

test component of the comprehensive assessment was more rigorous and transparent than past stress tests for euro area banks. Once capital raised in 2014 and ECB approved restructuring plans were taken into account, 8 of the 130 banks participating in the assessment fell short of the required capital thresholds.

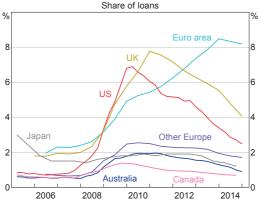
In the United States, for the first time since Dodd-Frank Act stress tests began in 2009, all 31 participating bank holding companies maintained capital levels above what the US Federal Reserve views as a minimum requirement during the test scenarios. However, the US subsidiaries of two international banks had their capital distribution plans objected to under the Comprehensive Capital Analysis and Review, due to 'widespread and substantial weakness across their capital planning processes:3 These banks may only make capital distributions that are expressly permitted by the Federal Reserve and may choose to resubmit their capital plans after addressing the issues identified. In addition to the two US subsidiaries, the Board of Governors issued a conditional non-objection to one US bank holding company, requiring it to correct weaknesses in some elements of its capital planning process and to resubmit a capital plan.

### Asset performance, funding and credit conditions

Over the past few years, loan-loss provisions associated with non-performing loans (NPLs) have explained much of the variation in bank profitability and valuations, both across advanced economy banking systems and over time. The NPL ratios for large banks in the major advanced economies declined over the second half of 2014, but generally remain above pre-crisis levels (Graph 1.16). The euro area banks' NPL ratios declined moderately in 2014 for the first year since the crisis, with asset quality improvements for banks in most euro area countries,

<sup>3</sup> Board of Governors of the Federal Reserve System (2015), 'Comprehensive Capital Analysis and Review 2015: Assessment Framework and Results', p 3.

Graph 1.16
Large Banks' Non-performing Loans\*



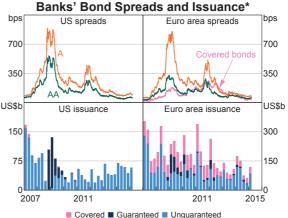
Definitions of 'non-performing loans' differ across jurisdictions; number of banks: Australia (4), Canada (6), euro area (41), Japan (5), other Europe (10), UK (4) and US (18)

Sources: APRA; Banks' Annual and Interim Reports; Bloomberg; FSA; RBA; SNI, Financial

especially in Spain and Ireland. In the United States and United Kingdom, improvements in overall asset quality were supported by the broader economic recovery. In the United States, lower NPL ratios for both residential and commercial real estate loans drove the decline, although those for residential real estate remain elevated relative to pre-crisis levels. In Japan, large banks' measured asset quality has been supported by an expansion in overseas lending, which has a lower non-performance rate than domestic lending.

Bank funding conditions in the advanced economies remained favourable in the second half of 2014 and bank bond yields and spreads remain low overall (Graph 1.17). That said, the volume of bank bond issuance has slowed from the strong pace of the first half of 2014. Banking systems have generally taken further steps towards improving their liquidity positions, including increasing their holdings of high-quality liquid assets (HQLA) ahead of the phase-in of the Liquidity Coverage Ratio (LCR), which commenced on 1 January 2015. Between December 2013 and June 2014, the large international banks' fully phased-in LCR shortfall is estimated to have decreased by around €50 billion to €305 billion (0.5 per cent of total assets) on a fully phased-in basis to be made up by 2019.

Graph 1.17



Spread to equivalent government bonds; March 2015 issuance is quarter-to-date

Sources: Bank of America Merrill Lynch; Bloomberg; Dealogic; RBA

Banks must hold sufficient HQLA to cover expected net cash outflows over a 30-day stress period. Therefore liabilities that are susceptible to rapid withdrawal, such as at-call deposits, must be covered by an appropriate amount of HQLA. Some large banks are considering fees to compensate for the higher cost of holding large deposits, or are encouraging institutional clients with large deposits to use alternative products that have fewer 'at-call' features (see 'Box A: The Basel III Liquidity Reforms in Australia' for more details on the Australian implementation of the LCR).

Lending standards in the major advanced economies have continued to ease (Graph 1.18), but overall credit conditions vary markedly across regions. The ECB's bank lending survey indicates that lending standards eased moderately in the second half of 2014, though they remain tight by historical standards and euro area private sector credit growth remains flat. In the United States, improved funding conditions and the further progress in banks' balance sheet repair contributed to an overall easing in credit conditions according to the Federal Reserve's Senior Loan Officer Opinion Survey. US credit growth has also picked up recently. The Bank of Japan's Senior Loan Officer Opinion Survey on Bank Lending Practices highlighted stronger demand for loans by firms and households and bank credit growth increased in Japan during the second half of 2014.

- \* Net percentage of respondents reporting tighter standards
- \*\* US housing is total housing before 2007, a simple average of prime and non-traditional mortgage loans from June 2007 to December 2014, and an average of government-sponsored enterprise eligible, qualified and non-qualified mortgage loans from January 2015; business series represents large and medium respondents only

2005

Sources: ECB; RBA; Thomson Reuters

2010

#### New Zealand

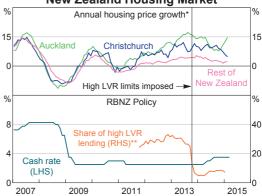
-35

2005

Developments in New Zealand remain an important focus for Australia given the large Australian banks' operations there. For some time, the Reserve Bank of New Zealand (RBNZ) has been concerned that rapid housing price growth increases the likelihood and the potential impact of a significant fall in housing prices at some point in the future. In response, in 2013 the RBNZ placed temporary limits on high loan-to-valuation ratio (LVR) lending and increased banks' capital and liquidity requirements. Between March and July 2014, the RBNZ also increased the overnight cash rate from 2.5 to 3.5 per cent. While growth in housing prices slowed during most of 2014, it appears to be increasing again in Auckland (Graph 1.19). The RBNZ has attributed this recent increase to rising household incomes, falling interest rates on fixed-rate mortgages, strong migration inflows and ongoing supply shortages.

The RBNZ is currently consulting on a new treatment for mortgage loans to residential property investors within its capital adequacy requirements. It proposes to amend existing rules by requiring all locally incorporated banks to include residential property investment mortgage loans in a separate asset sub-class, and hold appropriate regulatory capital for those loans.

Graph 1.19
New Zealand Housing Market



\* Smoothed; year to latest three months

35

2015

2010

\*\* Share of mortgages with a loan-to-valuation ratio above 80 per cent Sources: RBNZ; REINZ

The RBNZ has also identified high levels of indebtedness in the dairy sector as a key risk to financial stability in New Zealand given international price developments. In 2014, the international auction price for whole milk powder fell by more than 50 per cent from its October 2013 peak. The RBNZ has said that if milk prices do not recover sufficiently, household spending could slow sharply in 2016 as additional pressure is placed on dairy farmers' balance sheets and rural land prices. Dairy producers account for 9.5 per cent of the stock of outstanding bank credit in New Zealand; around half of this debt is owed by 10 per cent of New Zealand dairy farmers (see also 'The Australian Financial System' chapter).

## Banking Systems in Emerging East Asia

Chinese banks remain highly profitable and continue to report high capital ratios and low NPL ratios. Nonetheless, slowing economic growth has been associated with an increase in the stock of NPLs in China during the past six months, particularly in the wholesale and retail trade sectors. While banks' return on equity has declined somewhat, the effect of the increase in the stock of NPLs on bank profitability and NPL ratios has been moderated by continuing strong credit growth. The effects of the ongoing build-up of debt in an environment of

slowing economic growth are likely to be important drivers of bank profitability in the period ahead.

Despite the moderation in profitability, large Chinese banks' capital ratios have continued to increase during the past six months. Several Chinese banks issued hybrid Basel III compliant capital instruments in the second half of 2014, following regulatory changes in April 2014. Over two-thirds of this issuance was by the five largest Chinese banks, and nearly half of their issuance has been classified as Additional Tier 1 capital under Basel III. The Chinese authorities restrict banks from issuing common equity when their share price to book value ratio is below one; these hybrid issuances have thus been used by the largest banks to improve their Basel III capital ratios, while continuing to grow their asset portfolio. Nevertheless, as discussed in the previous Review, these hybrid instruments have inherent risks over common equity.

Overall, key banking indicators are generally sound across other Asian economies. Profitability across the region has moderated somewhat but remains generally high in most countries (Graph 1.20). All banking systems in Asia continue to report aggregate capital ratios well above regulatory minimums. NPL ratios remain generally low relative to their own history, though they are typically a lagging indicator of asset performance (Graph 1.21). In some countries, NPL ratios continue to be compressed by strong credit growth.

In Hong Kong, Singapore and Malaysia, housing prices have risen rapidly in recent years, leading to concerns about increasing household indebtedness. More recently, property price growth has begun to moderate in some economies, in line with a broader softening in economic conditions. In Hong Kong, authorities have recently tightened macroprudential policy settings targeted at real estate, given renewed signs of overheating in the property market. \*\*

Graph 1.20
Asian Banks' Return on Equity\*

After tax and minority interests China 20 20 Indonesia Malaysia 15 15 Hong Kong India Singapore 10 10 Thailand Taiwan 5 5 South Korea

Number of banks: China (51), Hong Kong (19), India (39), Indonesia (37), Malaysia (35), Singapore (3), South Korea (16), Taiwan (30) and Thailand (22); adjusted for significant mergers and acquisitions

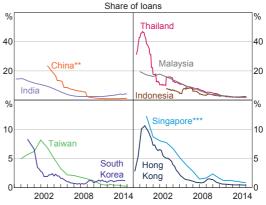
2010

2014

2014

Sources: RBA; SNL Financial

### Graph 1.21 Asian Banks' Non-performing Loans\*



- \* Definitions of non-performing loans differ across jurisdictions
- \*\* Data for 2002–2004 are for major commercial banks only
- \*\*\* Singaporean-owned banks only

Sources: CEIC Data: National Banking Regulators: RBA: SNL Financial