Financial Stability Review

MARCH 2014

Contents

Reserve Bank

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Overview

Developments in advanced economy financial systems have been broadly favourable over the past six months, while conditions in some emerging market systems deteriorated somewhat. Conditions in most major banking systems have continued to improve in line with better economic outcomes. In the United States, the improving economic outlook has seen the Federal Reserve take initial steps towards normalisation of monetary policy. This is a positive development for financial stability, not least because a sustained period of highly stimulatory monetary policy can create incentives for excessive risk-taking by investors. Nonetheless, there are also risks associated with exiting from highly accommodative monetary policy, as rising yields may expose risk among investors and borrowers, trigger heightened volatility in financial markets and weigh on economic growth if market interest rates overshoot.

Ongoing fragilities in the euro area could disrupt the nascent recovery there if investor sentiment were to deteriorate more broadly. Against a background of weak bank profitability and worsening asset performance, a key event for the euro area in 2014 is the European Central Bank's comprehensive banking system review. While the review should ultimately assist in restoring market confidence in the euro area banking system and promoting bank balance sheet repair, there could be renewed disruption if major capital shortfalls are uncovered before there is a European resolution fund in place to shield sovereigns from their banking sectors.

Market concerns about vulnerabilities in some emerging markets, which initially arose around the middle of last year, returned in late January. However, these were focused largely on country-specific issues and uncertainty about the outlook for the Chinese economy, rather than representing an across-the-board retreat from risk-taking. In 2013, large moves in equity prices and exchange rates were observed in economies with some combination of larger current account deficits, lower foreign currency reserves and building inflation pressures, while in the most recent episode of volatility, differences in growth prospects and domestic political circumstances have featured prominently. For most emerging market economies, however, capital outflows have been more moderate and asset price adjustments have reflected a degree of normalisation, following a long period of accommodative financial conditions. The prospect of direct financial contagion to advanced economies is limited to some extent by the small exposure that advanced economy banking systems have to emerging markets.

The Australian banking system continued to perform strongly in 2013. Asset performance has been gradually improving and, in line with this, bad and doubtful debt charges have declined, supporting profitability. The four major banks appear well placed to use internal capital generation to meet the higher capital requirements that they will face from 2016, having been designated by the Australian Prudential Regulation Authority (APRA) as domestic systemically important banks. From 2015, banks will need to meet APRA's new liquidity requirements, which are designed to strengthen a bank's ability to deal with liquidity pressures. While banks have reappraised their funding structures more generally since the financial crisis, the new liquidity rules will continue to influence the composition of banks' liabilities in the lead-up to the January 2015 start date.

Profitability in the general insurance industry remained strong over 2013, supported by premium increases and relatively fewer natural disasters than in recent years. Within the industry, the performance of lenders mortgage insurers remained somewhat softer than other general insurers, though it did improve in the second half of 2013, reflecting lower claim expenses.

With banks' bad and doubtful debt charges now at relatively low levels, and in an environment of moderate credit growth, the sources of profit growth may be more limited in the period ahead. It will be important for financial stability that banks do not respond by unduly increasing their risk appetite or relaxing their lending standards. One area that warrants particular attention is banks' housing loan practices. While rising housing prices and greater household borrowing are expected results from the monetary easing that has taken place and are helping to support residential building activity, they also have the potential to encourage speculative activity in the housing market. Lending to both housing investors and repeat-buyer owner-occupiers has been increasing for some time in New South Wales and has also picked up in some other states over the past six months. The pick-up in lending for housing would be unhelpful if it was a result of lenders materially relaxing their lending standards. Although current evidence suggests that lending standards have been broadly steady in aggregate, there are indications that some lenders are using less conservative serviceability assessments when determining the amount they will lend to selected borrowers. It is important for both investors and owner-occupiers to understand that a cyclical upswing in housing prices when interest rates are low cannot continue indefinitely, and they should therefore account for this in their purchasing decisions.

More generally, the overall financial position of the household sector was little changed in 2013 and indicators of financial stress generally remain low. Households continued to manage their finances with greater prudence than a decade ago: household wealth continued to increase; the saving ratio was within its range of recent years; and households continued to pay down mortgages more quickly than required. However, with household gearing and indebtedness still around historical highs and unemployment trending upwards, continued prudent borrowing and saving behaviour is needed to underpin the financial resilience of households. The recent momentum in household risk appetite and borrowing behaviour, in particular, therefore warrants continued close observation.

Indicators of distress in the business sector, such as failures and non-performing loans, generally continued to ease through 2013 and conditions appear to have improved. The period of deleveraging that took place following the financial crisis appears to have run its course, though the overall need for external funding by businesses, including demand for credit, remains modest. In the commercial property market, there appears to be increased interest from investors, particularly in the office property segment, where CBD prices have been rising in several cities despite weaker rents. This is consistent with some investors searching for higher yields, particularly relative to major overseas markets and other investments.

The involvement of Australia in international efforts to reform the global financial system, through the G20, the Financial Stability Board and standard-setting bodies, has increased further with Australia taking on the role of Chair of the G20 late last year. As part of this, Australia has worked to sharpen the focus of the G20's financial regulatory efforts in 2014 on substantially completing key aspects of the four core reform areas in response to the crisis:

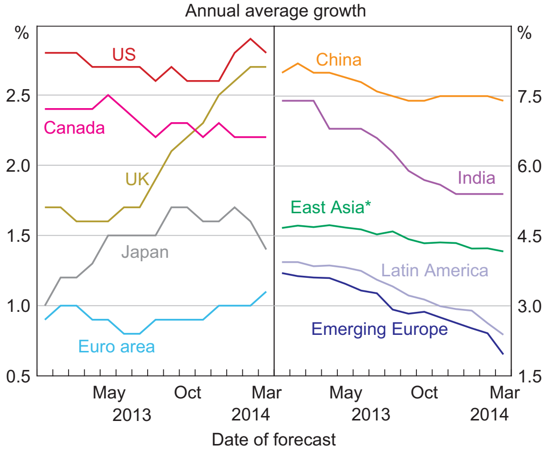
building resilient financial institutions through the Basel III reforms; addressing the 'too big to fail' problem; addressing shadow banking risks; and making derivatives markets safer. While there are certain aspects of the reforms that are still being finalised (at both global and national levels), attention of the global bodies is turning increasingly to implementation by national authorities and assessments of consistency in implementation globally. One example of this is the recent review by the Basel Committee on Banking Supervision of APRA's capital standards to assess their consistency with the Basel capital framework; APRA's standards were found to be compliant overall, with 12 of the 14 key components assessed as compliant and the other two as largely compliant.

The Australian financial system is also being reviewed under the government's Financial System Inquiry that was established late last year. The terms of reference for the inquiry are broad-ranging, covering aspects such as: the consequences of developments in the Australian financial system since the 1997 inquiry and the global financial crisis; the philosophy, principles and objectives underpinning the development of a well-functioning financial system; and the emerging opportunities and challenges that are likely to drive further change in the global and domestic financial system. The Bank will make a detailed submission to the inquiry shortly.

1. The Global Financial Environment

The risks to global financial stability have continued to evolve in line with shifting outlooks for growth and monetary policy. Developments in advanced economy financial systems have been broadly favourable since the previous *Financial Stability Review,* consistent with an ongoing recovery in economic conditions in many countries (Graph 1.1). However, vulnerabilities remain in Europe and market concerns about emerging markets have persisted. These concerns, initially sparked last year by shifting expectations for US monetary policy, surfaced amid a broader reassessment of prospects for emerging market growth and country-specific concerns. Recent events in Ukraine underline that geopolitical events can have repercussions on financial markets and sectors, often with little warning.

Graph 1.1
2014 GDP Forecasts
Annual average growth



* Hong Kong, Indonesia, Malaysia, Singapore, South Korea, Taiwan, Thailand and Philippines
Sources: Consensus Economics; RBA

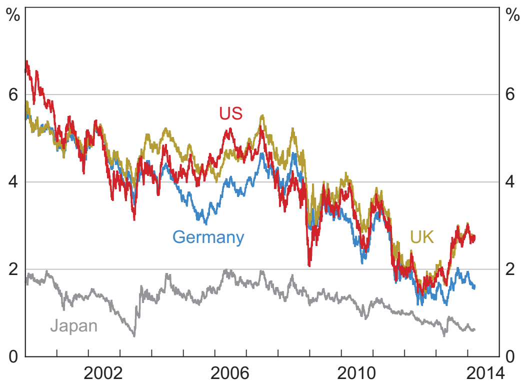
Global Financial Markets

Developed markets

In response to improving economic conditions in the United States, the Federal Reserve has taken initial steps towards a normalisation of monetary policy by reducing the pace of its asset purchase program at its December, January and March meetings. This is a positive development for financial stability, not least because an extended period of highly stimulatory monetary policy can encourage excessive risk taking. That said, there are also risks associated with exiting from highly accommodative monetary policy, as rising yields may trigger heightened volatility in financial markets, expose risk among investors and borrowers, and weigh unduly on economic growth. Reduced dealer inventories of bonds and the rising importance of investment vehicles that may be vulnerable to redemption risk in times of stress, such as exchange traded funds, have contributed to concerns about the potential for overshooting of bond yields.

In advanced economies, the adjustment to the reduced pace of monetary stimulus by the US Federal Reserve has to date been measured, in contrast to developments in May, when the Federal Reserve initially raised the prospect of 'tapering' asset purchases. Sovereign bond yields in the major advanced economies rose over 2013, but have traded within a narrow range during the past six months (Graph 1.2). Yields remain low relative to historical norms, reflecting subdued inflation

Graph 1.2
Government 10-year Bond Yields



Source: Bloomberg

expectations and the outlook for modest economic growth in most economies. Equity prices also rose over 2013, and are higher over the past six months.

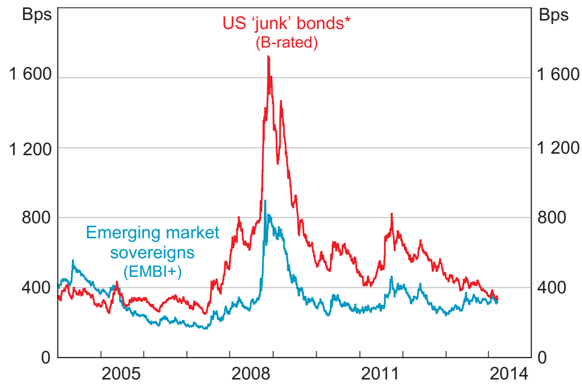
More broadly, international monetary conditions are likely to remain very accommodative for some time. The Federal Reserve has noted that it will remain appropriate to maintain the policy rate near zero for a considerable time after the asset purchase program ends and the economic recovery strengthens. The European Central Bank (ECB) reduced its main policy rate further in late 2013, and is ready to use a range of additional policy measures should further action be required. The Bank of Japan also continues to provide monetary stimulus, with its balance sheet expanding rapidly.

The protracted period of low interest rates in advanced economies, while necessary to support the global economic recovery, can also provide incentives for possibly excessive risk taking by investors. Over the past year, issuance of syndicated leveraged loans has grown strongly in the US, and underwriting standards on the underlying assets have reportedly loosened. In some economies, there has also been a revival in the commercial real estate sector.

Fund flow data show that some investors have continued to adjust their risk positions since May, for example by moving out of emerging market bonds and equities. Search for yield behaviour is still apparent, though investors appear to be increasingly discriminating among asset classes and markets. For example, spreads on lower-rated US corporate bonds have continued to narrow over the past six months and average spreads on US dollar denominated emerging market sovereign bonds have been broadly unchanged (Graph 1.3). In contrast, for some of those emerging market economies that are considered to be more fragile, spreads on sovereign bonds continued to increase.

Graph 1.3
Bond Spreads

To US government bonds

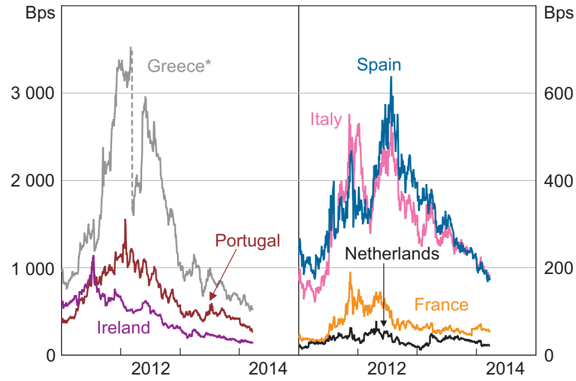


* 7–10 year maturity

Sources: Bank of America Merrill Lynch; Bloomberg; JP Morgan

In euro area financial markets, conditions have continued to improve gradually, assisted by a tentative economic recovery, progress with structural reforms in stressed euro area economies, and ongoing ECB support. Spain and Ireland have now exited their assistance programs and Portugal is expected to exit in mid 2014. In the crisis economies, bond spreads have narrowed (Graph 1.4), banks have reduced their reliance on central bank funding, and the level of deposits at banks has generally stabilised. Steps have also been taken towards strengthening the ability of the euro area to deal with its banking sector problems. In particular, the ECB will assume responsibility for supervising large banks by November. Member states have also agreed on methods of resolution and the establishment of a common resolution fund, though this is only scheduled to be complete by 2024 and the European Parliament is yet to formally pass these reforms.

Graph 1.4
Euro Area – Government 10-year Bond Spreads
To German Bunds



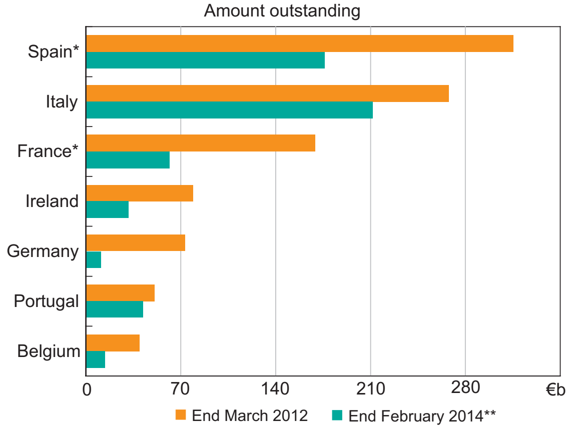
* Break on 12 March 2012 due to the first private sector debt swap
Source: Bloomberg

Risks to the euro area remain. Banking systems and sovereigns continue to face financial pressures, high unemployment persists, and price declines in some countries – while helpful in improving competitiveness – increase the real burden of debt service. The ECB's long-term refinancing operation (LTRO), which has been instrumental in improving sentiment towards European financial institutions, is due to expire in early 2015. Though around half of the peak in LTRO funding has been repaid (Graph 1.5), and ECB officials have said that shorter-term refinancing operations will be conducted if necessary, banks still dependent on ECB funding could face increased scrutiny.

A key focus in 2014 will be the results of the ECB's comprehensive assessment of banks' balance sheets and stress tests. Outcomes will be disclosed at the country and bank level, together with any recommendations for supervisory measures, ahead of the ECB assuming its supervisory role in November. The exercise is aimed at fostering confidence in euro area banks through improved transparency, and by encouraging balance sheet repair. It is not without risk, however, as negative results could hasten the pace of deleveraging and drag on the economic recovery. There is also the potential for renewed disruption in financial markets if major shortfalls in bank capital cannot be met by the private sector or national governments before there is a credible European backstop in place to shield sovereigns from their banking sectors.

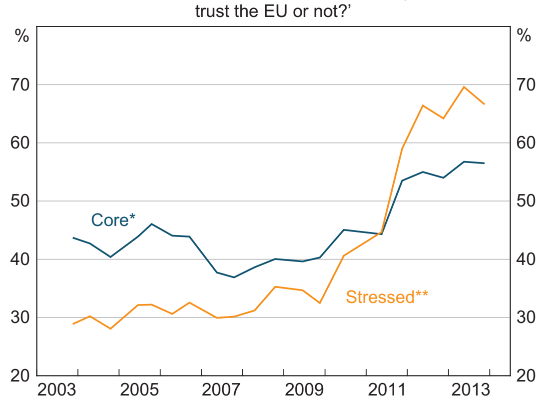
Political risks to reforms believed to be necessary to safeguard stability of the currency union continue to have the potential to weigh on markets. Against a backdrop of high unemployment, and the implementation of austerity measures by several euro area governments, shifting sentiment has supported a rise in representation from Eurosceptic parties at the national level, which is likely to see increased representation of these parties at upcoming European Parliament elections (Graph 1.6). These

Graph 1.5
LTRO Borrowing
Amount outstanding



* Month-average
** Germany as at January 2014
Source: central banks

Graph 1.6
Negative Sentiment Towards the EU
Share of respondents who answer no to 'Do you tend to trust the EU or not?'



* Belgium, France, Germany and Netherlands
** Greece, Ireland, Italy, Portugal and Spain
Source: Eurobarometer (European Commission)

developments have the potential to slow progress on unpopular structural reform measures aimed at restoring fiscal balance and competitiveness.

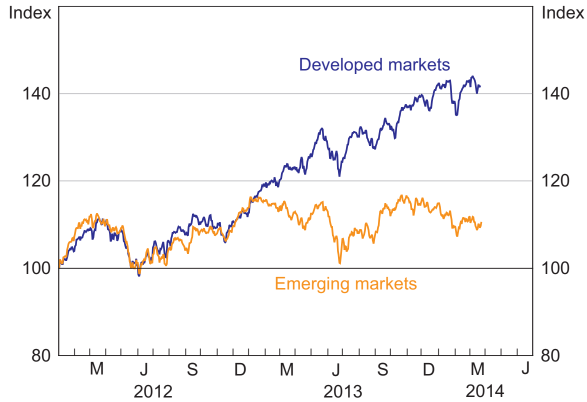
Emerging markets

Vulnerabilities in emerging markets have again been a focus for financial markets, with equity prices and exchange rates falling and bond yields rising in late January amid renewed capital outflows (Graph 1.7 and Graph 1.8). Although this has occurred in the context of 'tapering' by the US Federal Reserve, the most recent episode of volatility appears to reflect lingering concerns about the outlook for economic growth in China and other emerging markets, in addition to external imbalances that have built up in some countries during an extended period of accommodative financial conditions.

In 2013, particularly large adjustments were observed in economies with some combination of larger current account deficits, lower foreign currency reserves and building inflation pressures. More recently, there has been even greater investor discrimination between emerging markets, with concerns about growth prospects and domestic political circumstances featuring prominently in some of the more affected countries, such as Turkey and Argentina. For most emerging markets, however, capital outflows have been more moderate and asset price adjustments reflect a degree of normalisation following a long period of accommodative financial conditions.

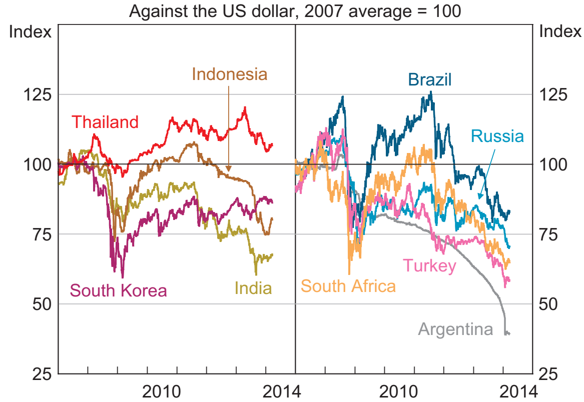
The rapid pace of depreciation and rise in long-term interest rates for some countries have raised concerns about inflation and financial stability risks arising from exchange rate and interest rate exposures. Policymakers in the more affected countries have responded in various ways, including by raising policy rates, intervening to stem the pace of depreciation and/or reduce exchange rate volatility, and by implementing policy measures designed to encourage capital inflows and/or restrict capital outflows. Most emerging market currencies have stabilised since February and some have appreciated

Graph 1.7
Equity Prices
2 January 2012 = 100



Source: Bloomberg

Graph 1.8
Emerging Market Currencies
Against the US dollar, 2007 average = 100



Source: Bloomberg

against the US dollar. Similarly, equity prices have recovered much of their losses and bond yields have been stable in these markets.

In most respects, emerging market economies appear to be considerably less vulnerable to external shocks than they were in the 1990s. The foreign currency exposure of many emerging economies has declined sharply over the past two decades, mainly reflecting a fall in aggregate external debt (Table 1.1) but also aided by a lower foreign currency-denominated share of external debt. Many emerging market sovereigns have become less indebted, and are now more able to

Table 1.1: Emerging Markets External Debt by Sector[(a)]
Per cent to GDP

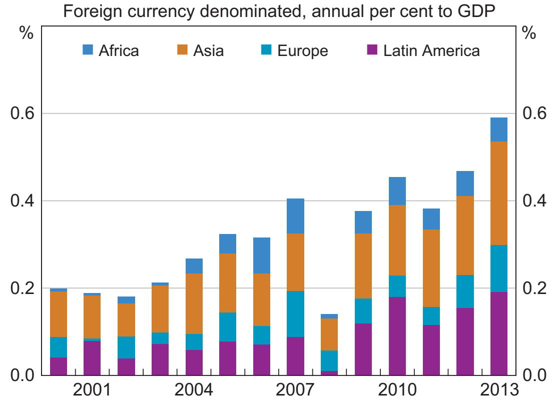
	Total		Public[(b)]		Private[(b)]	
	1995	2013	1995	2013	1995	2013
Asia						
India	26	22	22	6	4	14
Indonesia	62	29	32	13	29	16
Malaysia	39	33	18	8	21	26
Philippines	48	23	35	16	13	7
South Korea	21	35	1	8	20	27
Thailand	60	37	10	11	50	27
Latin America						
Argentina	38	29	21	14	17	11
Brazil	21	19	13	5	8	14
Mexico	49	31	28	19	21	12
Emerging Europe						
Poland	–	71	–	29	–	42
Turkey	32	44	22	12	10	31
Russia	39	33	32	15	6	18

(a) Sum of public and private debt in 2013 may not sum to total; different World Bank data sources have been used for sectoral and total data
(b) Publicly guaranteed debt is treated as public debt, except for Poland; for South Korea, only the debt of the monetary authority is treated as publicly guaranteed
Sources: IMF; RBA; World Bank

issue long-term debt denominated in their local currencies. Exchange rates are now more flexible, inflation is lower, and most central banks have higher holdings of foreign exchange reserves. Banks have higher levels of capital, and may be better able to manage their foreign exchange risks by hedging, as the availability of foreign exchange derivatives products has generally improved in these markets.

However, some new risks have emerged. Private sector external debt has increased in several emerging markets since the 1990s and, for some economies, now accounts for a larger share of external debt than sovereign debt (Table 1.1). Gross foreign currency-denominated bond issuance by non-financial corporations has increased over recent years, particularly in China, India and Mexico (Graph 1.9). Many emerging market firms issuing debt externally are likely to be from export-oriented sectors with foreign currency denominated revenue streams, creating a natural currency hedge. However, given the magnitude of the increase, some of these firms are likely to have been first-time issuers and there are reports that, in some limited instances,

Graph 1.9
Emerging Market Gross Non-financial Corporate Bond Issuance
Foreign currency denominated, annual per cent to GDP



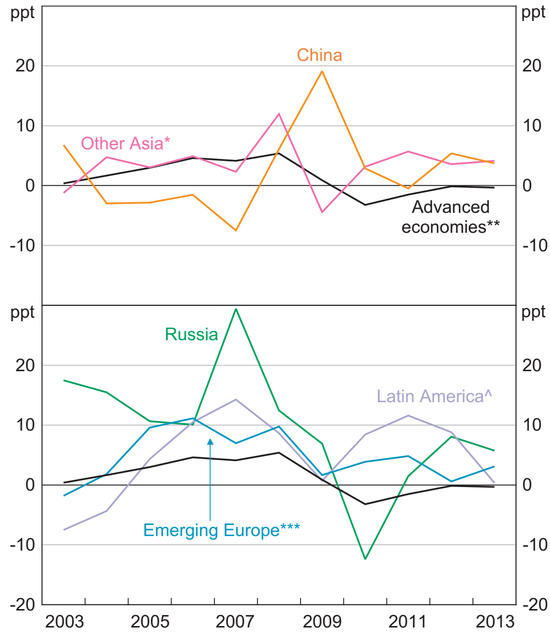
Sources: Dealogic; IMF; RBA; World Bank

they may have used these funds to purchase domestic assets that will generate local currency revenue streams, creating a currency mismatch. There is also some concern that hedges of foreign currency exposures may be inadequate following a period of relative exchange rate stability and/or if these firms are inexperienced in the conduct of hedging operations. Available data suggest that the use of financial currency hedges by non-financial corporations remains limited.

The rise in long-term interest rates represents a degree of normalisation from a period of unusually accommodative financial conditions in some emerging markets. In Asia, this was evident in a period of rapid growth in debt and property prices in several economies, primarily those with fixed or managed exchange rate regimes (Graph 1.10 and Graph 1.11). Increased household indebtedness has raised concerns about borrowers' ability to repay if interest rates rise or economic conditions deteriorate. More recently, property price growth has moderated in some economies in line with a broader softening in economic conditions.

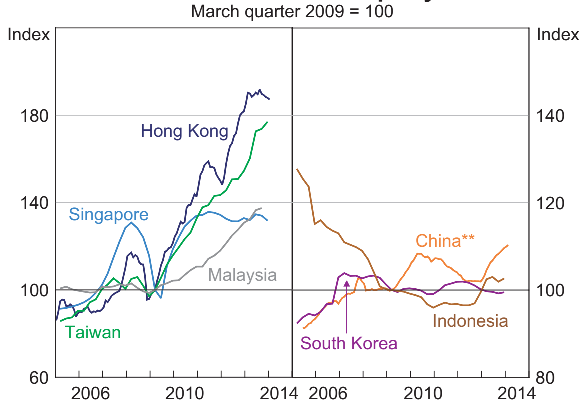
If instability in emerging markets arises, developed markets, including Australia, could be affected through trade and financial channels, and also via the broader impact on sentiment. Emerging markets now account for half of global GDP and one-third of global trade, compared to around one-third and one-fifth in the mid 1990s. For Australia, a key channel of contagion would be the effect of a regional slow-down on commodity prices, although the exchange rate could reasonably be expected to depreciate in such a circumstance and provide some support to income. The potential for contagion through financial channels appears limited as advanced economies' direct exposure to emerging markets via bank lending is small (Table 1.2). However, as these data focus on direct aggregate banking system linkages, they do not rule out the possibility that problems in emerging markets might adversely feed back on individual banks with large exposures.

Graph 1.10
Growth in Credit and Nominal GDP
Year-ended credit growth less year-ended growth in nominal GDP



* Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand
** Canada, euro area, Japan, United Kingdom and United States
*** Hungary, Poland and Turkey
^ Argentina, Brazil and Mexico
Sources: BIS; CEIC Data; ECB; Federal Reserve; IMF; RBA; Thomson Reuters

Graph 1.11
Asia – Real Residential Property Prices*
March quarter 2009 = 100



* Deflated using consumer price indices
** Average of new and existing residential property prices
Sources: CEIC Data; RBA

Table 1.2: Foreign Bank Lending
Per cent of total assets, as at 30 September 2013; ultimate risk basis

	Emerging Asia	Latin America	Emerging Europe
Euro area banks	0.6	1.4	2.9
UK banks	4.1	1.2	0.6
US banks	2.5	1.9	0.7
Japanese banks	1.6	0.4	0.2
Australian banks	2.2	0.1	0.0

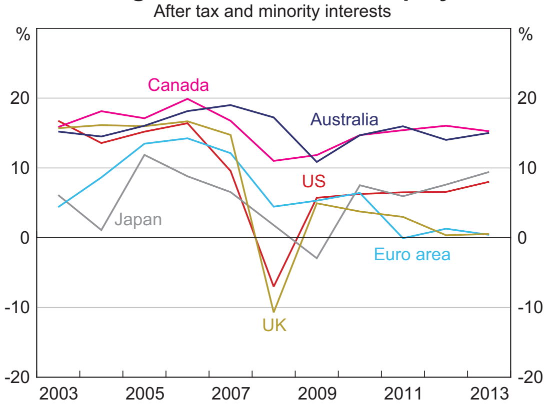
Sources: BIS; national sources

Banking Systems in Advanced Economies

Bank profitability and capital

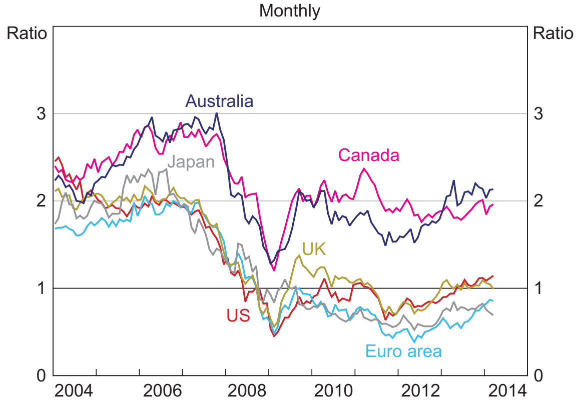
Conditions in most of the major banking systems improved over the past six months. Over this period bank share prices increased in the United States, euro area and Canada, and fell somewhat in the United Kingdom and Japan. Profits of large banks in most major advanced economies increased or were broadly stable last year, though rates of return remain well below pre-crisis averages (Graph 1.12). Outside of the euro area, improvements in banks' asset quality contributed to profits through lower loan loss provisions. Net interest margins, however, generally remained under pressure in the low interest rate environment, particularly for Japanese banks. Recent profits at many large banks have also been negatively affected by legal expenses arising from past dubious practices. In the euro area, bank valuations suggest that concerns about banks' asset quality and earnings outlook remain (Graph 1.13). In late 2013, some of these concerns were realised, with several banks reporting significant increases in loan loss provisions ahead of the ECB's asset quality review and stress tests. In some instances, share prices have responded positively to the announcement of higher provisions, potentially in recognition that banks are cleaning up their balance sheets.

Graph 1.12
Large Banks' Return on Equity*
After tax and minority interests



* Includes six US banks, eight euro area banks, four UK banks, three Japanese banks, six Canadian banks and four Australian banks; adjusted for significant mergers and acquisitions; reporting periods vary across jurisdictions; latest available data used where banks have not reported for December 2013
Sources: Bloomberg; RBA; SNL Financial; banks' annual and interim reports

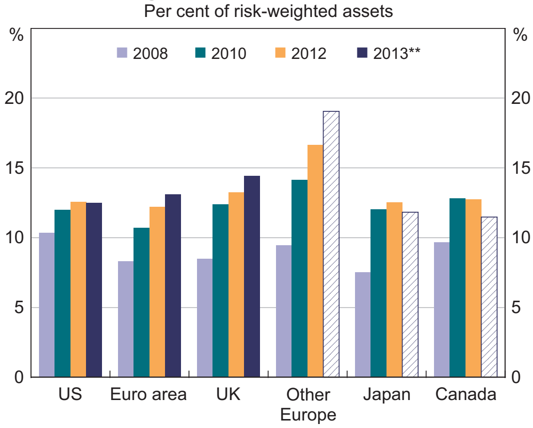
Graph 1.13
Banks' Share-price-to-book-value Ratios*
Monthly



* End of month; March 2014 observation is based on latest available data
Sources: Bloomberg; RBA

Capital levels have remained favourable for large banks in the major countries. Basel III capital rules were implemented on 1 January 2014 in the United States, the euro area and the United Kingdom; the capital ratios of large banks in these jurisdictions continued to rise over the previous six months, though their reported ratios are likely to decline a little under the new rules, as was observed in countries where Basel III was implemented earlier (Graph 1.14). In the euro area and the United Kingdom, this increase in capital ratios was achieved through further deleveraging, retained earnings and capital raising, including issuance of Basel III compliant bonds. In the United States, capital ratios were mainly supported through retained earnings, though some smaller banks also benefited from capital transfers from parent holding companies.

Graph 1.14
Large Banks' Tier 1 Capital*
Per cent of risk-weighted assets

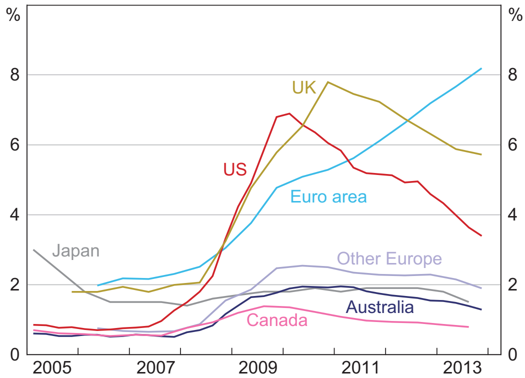


* Tier 1 capital ratios are subject to definitional differences; shaded bars indicate that some banks in a region are reporting under Basel III; includes 18 US banks, 41 euro area institutions, four UK banks, 10 other European banks, three Japanese banks and six Canadian banks
** Latest available data used where banks have not reported their 2013 results
Sources: Bloomberg; FDIC; RBA; SNL Financial; banks' annual and interim reports

Asset performance

With the exception of the euro area, the non-performing loan (NPL) ratios of large banks in the major economies continued to fall over the past six months, though they remain high compared to pre-crisis averages (Graph 1.15). In the United States, the overall improvement in asset quality has been driven by falls in the NPL ratios for residential and commercial real estate loans. In contrast to other major advanced economies, asset performance in the euro area has continued to deteriorate, particularly in the corporate sector and for banks

Graph 1.15
Large Banks' Non-performing Loans*
Share of loans



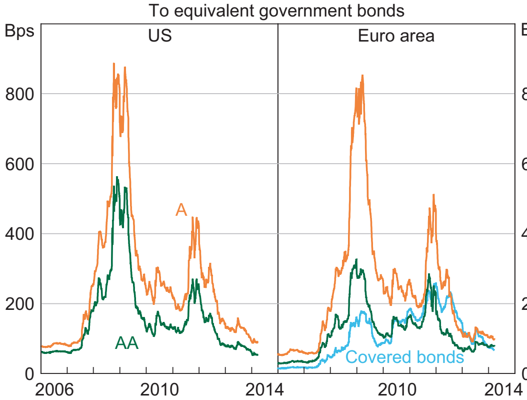
* Definitions of 'non-performing loans' differ across jurisdictions, sometimes including loans that are 90+ days past due but well secured and in the case of Australia small amounts of non-loan assets; includes 18 US banks, 41 euro area institutions, 10 other European banks, four UK banks, six Canadian banks, five Japanese banks and four Australian banks; latest available data used where banks have not reported for December 2013
Sources: APRA; FSA; RBA; SNL Financial; banks' annual and interim reports

with relatively large exposures to stressed euro area economies. In part, this is because some banks reviewed their accounting for impairments ahead of the ECB's asset quality review.

Bank funding conditions

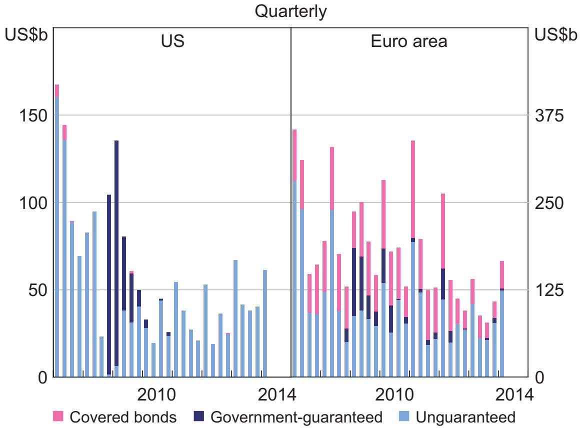
Funding conditions have remained favourable for large banks in the major countries and spreads on short-term interbank loans are around their lowest levels since mid 2007. Despite this, the volume of interbank lending remained low and other types of short-term wholesale funding continued to decline. Banks' bond spreads have narrowed over the past six months in the rising yield environment (Graph 1.16). In 2013 as a whole, bond issuance by US banks was at its highest level since 2009, though it remains below pre-crisis levels (Graph 1.17). High levels of deposit funding and weak asset growth have reduced banks' need for wholesale funding over time. In the euro area, overall funding conditions have improved, though some smaller banks and banks in stressed economies are still reliant on central bank liquidity. Banks have chosen to repay around half of the LTROs before the early 2015 deadline, although Spanish and Italian banks still have significant amounts outstanding.

Graph 1.16
Banks' Bond Spreads
To equivalent government bonds



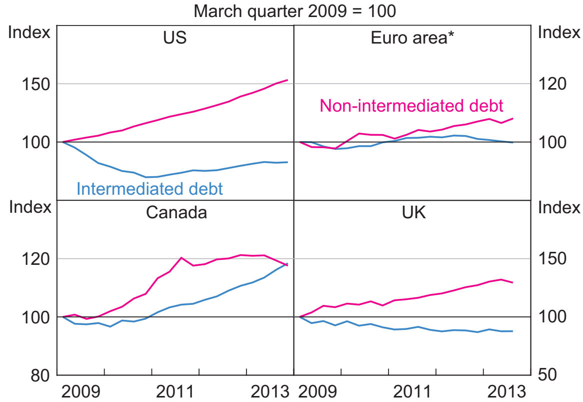
Sources: Bank of America Merrill Lynch; Bloomberg; RBA

Graph 1.17
Banks' Bond Issuance*
Quarterly



* March 2014 is quarter-to-date
Sources: Dealogic; RBA

Graph 1.18
Private Non-financial Corporations' Debt Funding
March quarter 2009 = 100



* Refers to public and private non-financial corporations
Sources: ECB; ONS; RBA; Statistics Canada; Thomson Reuters

Credit conditions

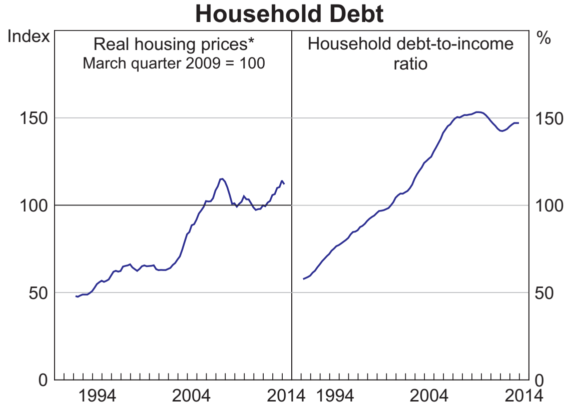
With corporate bond yields remaining close to historical lows and euro area banks deleveraging, private non-financial corporations' non-intermediated debt funding has generally grown more quickly than intermediated debt (Graph 1.18). Nonetheless, consistent with developments in bank and economic conditions, intermediated credit markets in most major advanced economies have shown some signs of improvement. Total credit in the United States expanded over the past six months, as growth in consumer and business credit offset a further contraction in housing credit that followed increases in mortgage rates in the middle of last year. Demand for business loans has increased alongside an easing of lending standards. In the United Kingdom, after an extended period of stagnation, credit rose by around 1 per cent over 2013, consistent with improving macroeconomic environment. Credit growth in the United Kingdom may also have been supported by the Help to Buy Scheme, which enabled buyers to take on mortgages with smaller deposits.

In the euro area, credit conditions remain relatively difficult, in line with the soft economic environment. The ECB's lending survey shows that demand for business loans continued to fall over the six months to December 2013 and banks continued to tighten lending standards. Accordingly, credit growth continued to decline over the year to December, driven by falls in business sector credit. The outlook for credit conditions appears to have improved, however, with the ECB lending survey suggesting that banks expect demand for loans to increase and lending standards to ease. Weak lending to small and medium enterprises (SMEs) has been of particular concern to policy makers, and the ECB has signalled a willingness to purchase securitised SME assets to stimulate investment.

New Zealand

Developments in New Zealand remain an important focus given the large Australian banks' operations there. Historically low mortgage rates and reported supply constraints contributed to a pick-up in housing price growth in recent years (Graph 1.19). This has increased focus on household and bank balance sheet risks, particularly given increases in high loan-to-valuation ratio (LVR) borrowing. In mid 2013 the RBNZ concluded that raising interest rates was not an appropriate response given the high exchange rate. The RBNZ instead opted to limit the availability of high LVR loans from October 2013, as well as raise banks' capital and liquidity requirements. The New Zealand government and regional councils also fast-tracked building approvals to alleviate supply shortages. In early 2014, the share of new lending with an LVR over 80 per cent fell to around 5 per cent from over 30 per cent, and housing price growth moderated. At its March 2014 meeting, the RBNZ increased its policy rate in response to increasing inflationary pressures. The RBNZ noted that pressure on housing prices had started to ease – which it attributed to the LVR restrictions – and that higher interest rates were likely to have a further moderating influence. However, an increase in net immigration flows would remain an offsetting influence.

Graph 1.19
New Zealand – Real Housing Prices and Household Debt



* Estimate for March 2014 based on average of January and February data
Sources: RBNZ; REINZ; Statistics NZ

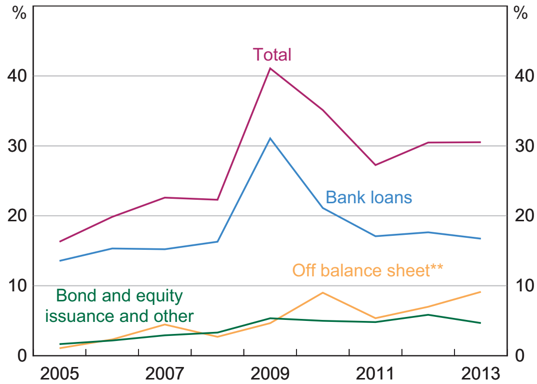
Banking Systems in Emerging Markets

Performance of Asian banking systems

Conditions in Asian banking systems remained generally favourable in 2013 despite increased volatility in financial markets and slower economic growth in the region. Most banks in Asia have large deposit bases and relatively wide net interest margins, which have enabled them to continue to earn solid profits. In China, banks' profits have continued to grow, albeit at a slower pace than in recent years. The liberalisation of deposit rates in China over the next two years, while positive for long-term financial stability, may reduce bank profits in China in the near term. Banks in Asia have used their profits to raise their capital ratios through retained earnings. Aggregate capital ratios across Asian banking systems are relatively high, and well above minima specified by the Basel III capital rules, which already apply in most jurisdictions in the region. NPL ratios generally remain low, although these are typically a lagging indicator and there have been signs of deteriorating asset quality in certain economies and sectors (see 'Box A: Non-performing Loans at Asian Banks').

A potential risk to China's financial stability continues to be its 'shadow' banking system. Lending by non-bank entities and through banks' off-balance sheet activities has grown rapidly as a result of restrictions on the price and quantity of credit intermediated by the banking sector (Graph 1.20). Chinese savers, seeking higher yielding alternatives to deposits, invest in wealth management products (WMPs) which have short maturities, but are frequently used to fund long-term lending by trust companies. As trust companies lend in areas where there are restrictions on bank lending, their underlying asset quality is likely to be poorer than banks' on-balance sheet exposures. Because these products are often marketed through banks, many investors are under the impression that they are implicitly guaranteed, a view perhaps supported

Graph 1.20
China – Total Social Financing*
Annual flow, per cent to GDP



* Funding provided by the financial system to the real economy
** Includes entrusted loans, trust loans and bank accepted bills
Sources: CEIC Data; RBA

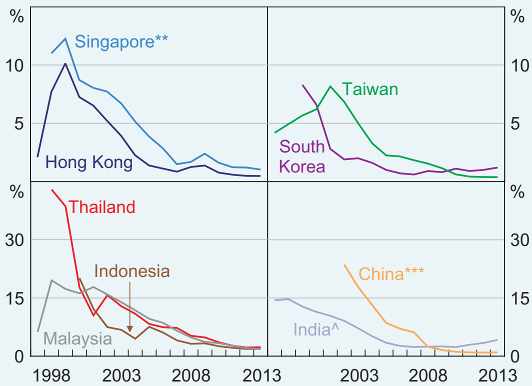
by recent instances when government pressure was reportedly exerted to find a buyer for trusts nearing default. If investors were to lose confidence in WMPs, they may decide not to roll over their existing investments, exposing trust companies and the banking system more broadly to liquidity risk. Concerns of this nature were highlighted by the near default of a WMP in January. The gradual liberalisation of deposit rates should assist in removing the incentives for investment in WMPs and help ensure that the returns on savings products better reflect their risks.

Box A

Non-performing Loans at Asian Banks

Over the past decade, aggregate non-performing loan (NPL) ratios for most banking systems in Asia have fallen to low levels (Graph A1).[1] This improvement in loan performance has coincided with a period of strong growth in nominal incomes and credit, and increasing financial market inclusion. As a result, intermediated credit has been extended to a wider cross-section of sectors and individuals in these economies. Periods of strong credit growth tend to support loan performance because newer loans, which have had less time to go bad, make up a larger share of total loans. Efforts made by supervisory authorities in the region to improve banks' credit risk management and underwriting practices in the years following the Asian financial crisis are also likely to have assisted the decline in NPL ratios in a number of countries.

Graph A1
Asia – Non-performing Loans*
Share of loans



* Definitions of 'non-performing' differ across jurisdictions; data are for year-end
** Singaporean-owned banks only
*** Data for 2002–04 are for major commercial banks only
^ Latest available data are for September 2013
Sources: CEIC Data; RBA; banks' annual reports; national banking regulators

Some commentators expect NPL ratios in Asia to rise amid slower income growth and less accommodative financial conditions, particularly given that NPLs are typically a lagging indicator of asset quality. To date, increases in aggregate NPLs have occurred in some economies, particularly in India but also in Korea. In China, reported NPLs have picked up in certain sectors and regions but remain low in aggregate.

India

The Reserve Bank of India (RBI) has identified declining asset quality as a concern.[2] India has had the most pronounced increase in NPLs in the region, with the aggregate NPL ratio rising to 4.2 per cent in late 2013 from a low of 2.3 per cent in 2009. Similarly, restructured loans increased to around 6 per cent of total loans in September 2013 from 2.5 per cent in June 2011. This suggests that more firms are having difficulty meeting their repayments than is implied by the NPL ratio alone.

In contrast to other Asian economies, credit growth in India had started to slow before the global financial crisis. The rise in NPL ratios and debt restructuring since 2009 has coincided with a slowdown in GDP growth. There is some evidence that credit appraisal standards may have eased during the earlier period of strong credit growth.[3] More recent increases in policy rates, aimed at addressing persistently high inflation and supporting the currency, could make debt servicing more difficult for some firms and households.

1 Non-performing loans typically include loans more than 90 days in arrears or loans less than 90 days in arrears that are unlikely to be fully repaid. However, definitions differ so it may not be meaningful to compare the level of NPL ratios across economies.

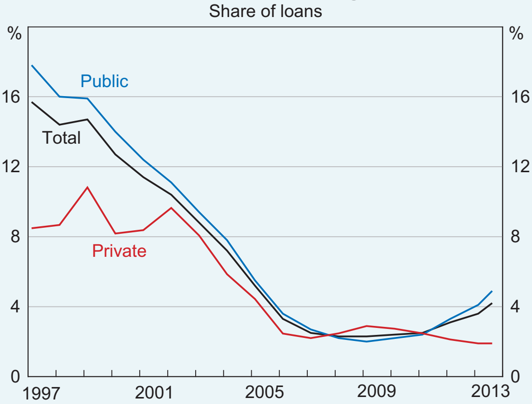
2 See, for example, Reserve Bank of India (2013), *Financial Stability Report*, December.

3 Lokare S (2014), 'Re-emerging Stress in the Asset Quality of Indian Banks: Macro-Financial Linkages', Reserve Bank of India Working Paper 03/2014.

The rise in NPLs has been driven by deteriorating asset quality at publicly owned banks (Graph A2). NPLs in the infrastructure sector have grown particularly quickly recently. Given the importance of infrastructure to development, Indian authorities provide incentives for banks to increase infrastructure lending. These projects typically only become cash flow positive towards the end of their life cycle and, for some, regulatory delays have made it harder to service their debt. Overall, the infrastructure, iron & steel, textiles, aviation and mining sectors together accounted for 53 per cent of non-performing or restructured loans in 2013, compared with 24 per cent of total loans.

Since 2008, the Indian Government has injected capital into public banks to help them absorb losses on bad loans and meet Basel III capital rules. The RBI also proposed a new framework for dealing with distressed assets in January.[4] The framework includes rules to ensure the timely recognition of bad assets, improve the efficiency of the restructuring process and support the sale of stressed assets.

Graph A2
India – Non-performing Loans
Share of loans



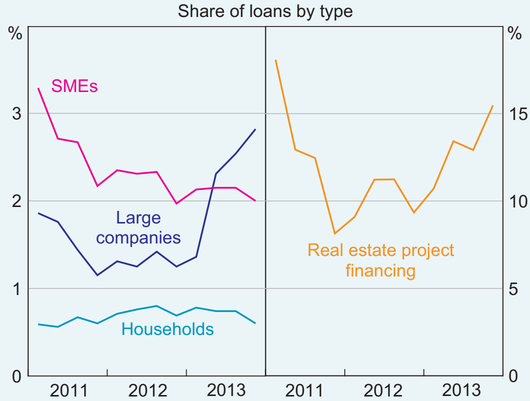
Source: RBI

4 See RBI (2014), 'Early Recognition of Financial Distress, Prompt Steps for Resolution and Fair Recovery for Lenders: Framework for Revitalising Distressed Assets in the Economy', Reserve Bank of India, 30 January.

Korea

The aggregate NPL ratio at Korean banks also increased in 2013, albeit from a low level. This has been driven by a rise in NPLs to large companies (Graph A3). Corporate failures of large enterprises have increased in recent years, particularly among firms in the shipping, shipbuilding and construction sectors. Demand for new vessels grew strongly alongside a boom in world trade before the global financial crisis, which spurred a significant increase in shipbuilding capacity. Following the crisis, a combination of an oversupply of ships, sharp declines in freight rates and higher fuel costs placed significant stress on shipping and shipbuilding firms. In the construction sector, the rise in problem loans has been driven by a sustained real-estate market downturn in the Seoul metropolitan area. As is often the case in the commercial real-estate sector, NPLs in 2013 have been concentrated among a few large firms. Within the construction sector, the NPL ratio for real estate project finance increased sharply in 2013. These loans accounted for around 10 per cent of Korean banks' NPLs in 2013, compared to less than 2 per cent of total loans.

Graph A3
South Korea – Non-performing Loans*
Share of loans by type



* Domestic banks; substandard-and-below loans, which include loans overdue by more than three months, plus doubtful loans
Source: Financial Supervisory Service

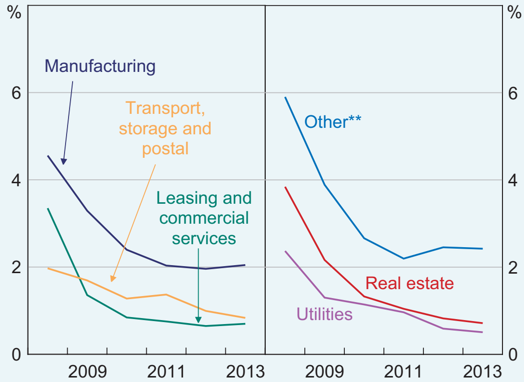
The increase in NPLs has been most pronounced at banks with substantial government ownership. Some market commentary has suggested that several of these banks may require capital injections if there is further corporate distress. In aggregate, banks' share-price-to-book-value ratios in Korea have increased over the past year, but remain below one.

While the NPL ratio for banks' loans to households remains low, it has risen for mortgages made by non-bank institutions such as mutual savings banks and credit cooperatives. In recent years, banks have reduced their exposure to higher-risk mortgages, which have increasingly become concentrated in non-bank financial institutions. In 2012, authorities introduced regulations for these institutions aimed at reducing their exposure, including higher risk weights for risky mortgages and a maximum loan-to-deposit ratio of 80 per cent. Household loan growth by non-bank institutions has since slowed substantially, but the NPL ratio for housing loans made by these institutions has increased amid the sustained fall in property prices in Seoul and slower growth in household incomes.

China

While the aggregate stock of manufacturing NPLs in China has risen, the stock of loans has grown commensurately, leaving the corresponding NPL ratio broadly unchanged (Graph A4). Detailed data available for mid 2013 show that increasing NPL ratios have been confined to particular industries and regions, such as the Yangtze River Delta region, which has a large manufacturing industry. The increase in NPLs has centred on industries which

Graph A4
China – Non-performing Loans*
Large banks, share of loans



* Data are for year-end; latest available data are for June 2013
** Includes wholesale and retail trade, mining, construction and financial services
Source: banks' reports

the People's Bank of China has identified as facing excess capacity, including the photovoltaic, steel, shipping, chemical and cement industries. The quality of infrastructure-related loans made to local governments has continued to attract scrutiny, and banks are commonly thought to be forbearing on part of these portfolios.

Chinese authorities have endorsed a range of options to address problem loans, including use of over-the-counter exchanges to help banks find buyers for problem assets and the creation of provincial 'bad banks' to purchase NPLs. New regulations have also been introduced that require banks to regularly report on their off-balance sheet exposures. That said, Chinese banks typically have high regulatory capital ratios, which suggest they ought to be well placed to absorb losses.

2. The Australian Financial System

Australian banks have increased their resilience to adverse shocks by strengthening their capital positions and funding structures since the global financial crisis. These changes have been beneficial for financial stability, and are being reinforced by the full implementation of Basel III capital and liquidity reforms over the next few years. The four major banks will also be subject to a 'higher loss absorbency' (HLA) capital requirement from 2016, as part of the framework for domestic systemically important banks (D-SIBs) released recently by the Australian Prudential Regulation Authority (APRA). The major banks appear well placed to meet this requirement through internal capital accumulation.

Banks' asset performance has been gradually improving. Accordingly, banks' profits have been supported by further declines in their bad and doubtful debt charges, as well as a range of cost-cutting initiatives. However, with banks' bad and doubtful debt charges now at relatively low levels, and in an environment of moderate credit growth, the sources of profit growth may be more limited in the period ahead. It will be important for financial stability that the banks do not respond by unduly increasing their risk appetite or relaxing their lending standards. One area that warrants particular attention is banks' housing lending practices, given that low interest rates and rising housing prices have the potential to contribute to speculative activity in the housing market.

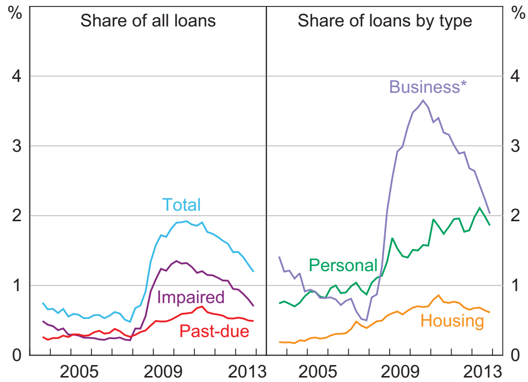
Profitability remains strong in the domestic general insurance industry, reflecting a favourable claims experience and increases in premium rates. Profitability for lenders mortgage insurers has been softer than the remainder of the general insurance industry, but there has been a moderate improvement in their claims expense and profits recently, consistent with the strengthening housing market and earlier improvements in underwriting standards. Operating conditions are more difficult in the life insurance industry, with ongoing competitive pressures and higher claims contributing to a reduction in profits in 2013.

Asset Performance

Given that most Australian banks' business models are heavily focused on lending, asset performance is a key indicator of Australian banks' soundness. Following a period of deterioration in 2008–09, Australian banks' asset performance has improved gradually over recent years. In domestic portfolios, the ratio of non-performing loans (NPLs) to total loans was 1.2 per cent at December 2013, down from 1.4 per cent at June 2013 and a peak of 1.9 per cent in mid 2010 (Graph 2.1). This improvement has been primarily due to a fall in the share of loans classified as impaired (those not well secured and where repayment is doubtful), which accounted for much of the earlier increase. The share of loans classified as past due (in arrears but well secured) has declined modestly since its peak in 2011.

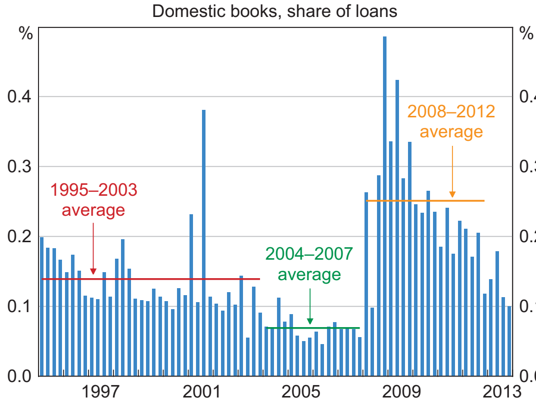
The decline in banks' domestic impaired assets ratio over the past couple of years has been driven by a steady reduction in the inflow of newly impaired loans (Graph 2.2); in recent quarters the ratio of new impaired assets to total loans has returned to around

Graph 2.1
Banks' Non-performing Assets
Domestic books



* Includes lending to financial businesses, bills, debt securities and other non-household loans
Source: APRA

Graph 2.2
Banks' New Impaired Assets
Domestic books, share of loans

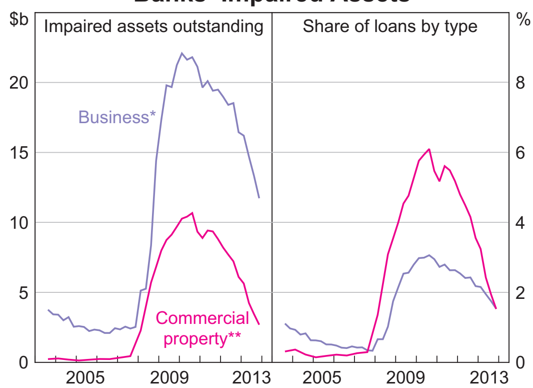


Sources: APRA; RBA

long-run average levels, reflecting broad-based improvement across the banking industry. The reduction in part reflects changes in banks' lending standards since 2008 as well as an improvement in the commercial property market.

Banks' commercial property exposures were one of the main drivers of the rapid increase in banks' impaired assets during the 2008–09 crisis period. The share of banks' domestic commercial property exposures classified as impaired reached a peak of 6 per cent in mid 2010, but this has declined gradually since and, at 1.5 per cent, is now at the same level as the impaired ratio for total business lending (Graph 2.3). Banks' impaired commercial property exposures continued to fall markedly over the second half of 2013; as discussed in the chapter on 'Household and Business Finances', some commercial property prices have strengthened recently, while a number of smaller Australian and foreign-owned banks have sold or written off troubled exposures. The performance of banks' domestic business exposures outside of the commercial property sector improved moderately over the second half of 2013.

Graph 2.3
Banks' Impaired Assets

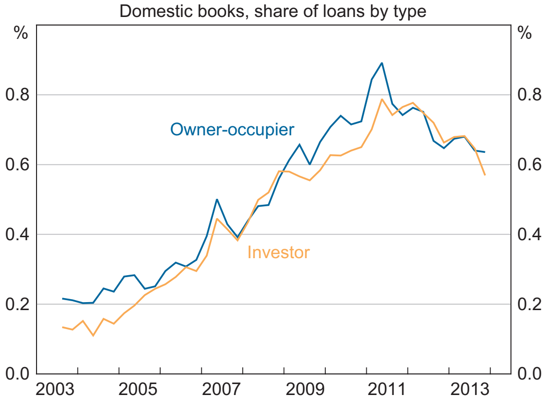


* Domestic books; includes lending to financial businesses, bills, debt securities and other non-household loans
** Consolidated Australian operations
Source: APRA

The non-performing share of banks' domestic housing loan portfolios edged lower over the six months to December 2013, to 0.6 per cent. This ratio has declined from its peak of 0.9 per cent in mid 2011, aided by low interest rates and generally tighter mortgage lending standards in the period since 2008. The ratio of impaired housing loans has fallen slightly over recent quarters; the rise in housing prices appears to have helped banks deal with their troubled housing assets, with a number of banks reporting a reduction in mortgages-in-possession. NPL ratios for both the owner-occupier and investor loan segments have declined since 2011; these two loan segments have tracked each other closely over the past decade (Graph 2.4).

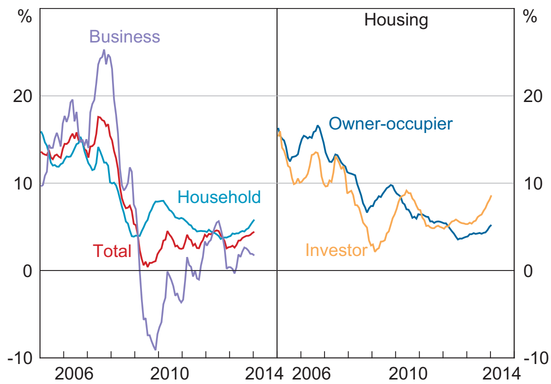
The share of banks' non-performing personal loans also declined slightly over the second half of 2013,

Graph 2.4
Banks' Non-performing Housing Loans
Domestic books, share of loans by type



Source: APRA

Graph 2.5
Credit Growth
Six-month annualised



Sources: APRA; RBA

although at around 2 per cent it remains higher than a few years ago. As noted in the September 2013 *Review*, deterioration in the performance of banks' personal loan portfolios, including credit cards and other personal loans, likely reflects a combination of compositional factors, although an underlying deterioration in credit quality cannot be ruled out. Regardless, personal loans represent less than 5 per cent of banks' total domestic loans, and therefore have had little influence on banks' overall domestic asset performance and losses.

Credit Conditions and Lending Standards

Banks' domestic lending expanded at a moderate pace over the past six months. Housing credit grew at an annualised rate of about 6½ per cent over the six months to January 2014; this is a slightly faster pace than in recent years, largely due to an upswing in investor housing credit growth, which is now growing at about 8½ per cent (Graph 2.5). As discussed in the chapter on 'Household and Business Finances', growth in loan approvals for investor housing has been rapid over the past six months, but total household credit growth has been moderated by ongoing strong prepayment activity. In contrast to household credit, growth in business credit remains slow, consistent with subdued investment intentions in most industries.

In association with strong growth in housing loan approvals, competition for new borrowers has strengthened in the housing loan market. Some banks have increased the discounts on their headline interest rates, waived application fees or raised upfront commissions to mortgage brokers. However, the available evidence suggests that non-price loan standards, such as loan serviceability and deposit criteria, have remained broadly steady in aggregate over recent quarters. For example, low-doc lending continues to represent less than 1 per cent of loan approvals, while the share of loan approvals with loan-to-valuation ratios (LVRs) greater than or equal to 90 per cent has been fairly steady since 2011, at about 13 per cent. It is important for banks' risk management that they are vigilant in maintaining prudent lending standards, given that a combination of historically low interest rates and rising housing prices could encourage speculative activity in the housing market and encourage marginal borrowers to increase debt. APRA's forthcoming Prudential Practice Guide, which will outline its expectations for prudent housing lending practices, should assist banks in this regard.

Although aggregate bank lending to these higher-risk segments has not increased, it is noteworthy that a number of banks are currently expanding their new housing lending at a relatively fast pace in certain borrower, loan and geographic segments. There are also indications that some lenders are using less conservative serviceability assessments when determining the amount they will lend to selected borrowers. In addition to the general risks associated with rapid loan growth, banks should be mindful that faster-growing loan segments may pose higher risks than average, especially if they are increasing their lending to marginal borrowers or building up concentrated exposures to borrowers posing correlated risks. As noted above, the investor segment is one area where some banks are growing their lending at a relatively strong pace. Even though banks' lending to investors has historically performed broadly in line with their lending to owner-occupiers, it cannot be assumed that this will always be the case. Furthermore, strong investor lending may contribute to a build-up in risk in banks' mortgage portfolios by funding additional speculative demand that increases the chance of a sharp housing market downturn in the future (see 'Household and Business Finances' chapter).

According to industry liaison, lending conditions within the business loan market have continued to ease. In the 'wholesale' market (i.e. large value loans), competition among lenders amid subdued demand for credit has further compressed margins and lengthened loan maturities. In some cases, there has been an easing in loan covenants, including serviceability criteria such as minimum interest coverage ratios. The strengthening in parts of the commercial property market has also resulted in more relaxed loan terms on some commercial property loans. In contrast, there have been some reports of tightening loan conditions for the mining and mining services industries (as well as for households in mining-specific locations), given falling commodity prices.

International Exposures

Australian-owned banks' international exposures arise from the activities of their overseas operations, as well as the direct cross-border activities of their Australian-based operations. In aggregate, Australian-owned banks' international claims (i.e. exposures) represent a little less than one-quarter of their global consolidated assets, which is a smaller share than those of many other advanced banking systems. These international activities can provide income diversification and other benefits to banks, but they also expose them to various risks and could be a source of strain if conditions deteriorate offshore.

Australian-owned banks' claims on New Zealand are larger than those on other jurisdictions because all four major banks have large banking operations there (Table 2.1). The bulk of these exposures are to the private sector, in particular housing and agriculture. Concerns over the effect of strong housing price growth and mortgage market competition on financial stability prompted the Reserve Bank of New Zealand to restrict the proportion of banks' new housing lending at higher LVRs (see 'The Global Financial Environment' chapter). New lending at higher LVRs has declined significantly since the measures were introduced in the latter part of 2013, although there are reports that banks are now competing more aggressively for lower LVR loans. It is unclear what effect the regulatory measures will have on the housing market and banks' credit portfolios over the medium term. The major banks' residential mortgage portfolios in New Zealand had already been performing better and the share of non-performing loans continued its downward trend in the December quarter 2013.

In aggregate, Australian-owned banks also have significant claims on the United Kingdom. The asset performance of these exposures has been relatively weak over recent years because of the difficult economic and property market conditions in the United Kingdom. Despite a modest recovery in the UK economy over recent quarters, bad and doubtful debt charges are still at elevated levels and the NPL ratio remains high at around 4 per cent.

Australian-owned banks' loan performance has been much better in Asia, in part because economic conditions there have generally been favourable. In

Table 2.1: Australian-owned Banks' International Claims
Ultimate risk basis, as at end September 2013

		Total	*Of which:* Banks	Public sector	Private sector
	$ billion	Per cent of assets	Per cent of assets	Per cent of assets	Per cent of assets
New Zealand	297.1	9.0	0.5	0.4	8.1
United Kingdom	127.3	3.9	0.7	0.9	2.2
United States	91.0	2.8	0.6	1.1	1.1
Asia[(a)]	140.4	4.3	0.9	1.4	2.0
Emerging Asia	73.6	2.2	0.7	0.4	1.1
Europe	52.7	1.6	0.9	0.2	0.5
Emerging Europe	1.3	0.0	0.0	0.0	0.0
Other	47.4	1.4	0.3	0.4	0.7
Other emerging	12.1	0.4	0.0	0.1	0.2
Total	**755.9**	**22.9**	**3.8**	**4.4**	**14.6**

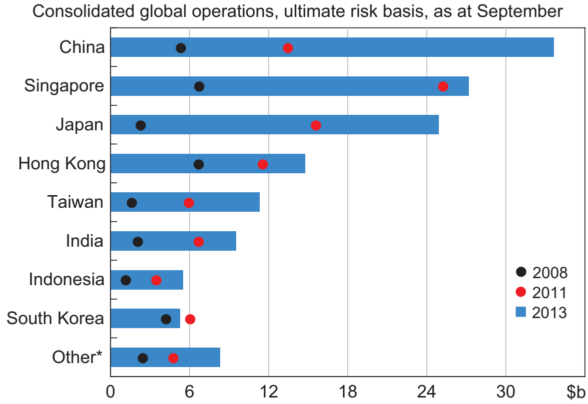
(a) Includes offshore centres Hong Kong and Singapore
Sources: APRA; RBA

addition, a significant portion of banks' exposures to Asia have a relatively low credit risk profile.[1] Exposures to the Asian region have grown strongly over recent years, and now account for almost 20 per cent of Australian-owned banks' total international claims. Claims on China, in particular, have increased significantly of late, mainly due to growth in claims on the bank and non-bank private sectors (Graph 2.6). Exposures to Chinese banks account for around one-half of Australian-owned banks' total exposures to China, which is a higher share than for most other jurisdictions.

As discussed in the 'The Global Financial Environment' chapter, there has been renewed focus on debt-related vulnerabilities in emerging markets over recent months amid a reassessment of growth prospects and shifting expectations for US monetary policy. Australian-owned banks' exposures to emerging market economies are relatively small: they represent about 12 per cent of their total international claims and 3 per cent of their global consolidated assets. Most of these exposures are

1 For further details, see RBA (2013), 'Box A: Australian Bank Activity in Asia', *Financial Stability Review*, March, pp 36–38.

Graph 2.6
Australian-owned Banks' Claims on Asia
Consolidated global operations, ultimate risk basis, as at September



* Cambodia, Laos, Malaysia, Philippines, Thailand and Vietnam
Sources: APRA; RBA

to Asia; exposures to other emerging economies, including those in Europe, are very small. Because their overall exposures are not large, emerging market vulnerabilities do not present a significant direct risk for the Australian-owned banks. However, in the event of slower growth in some Asian jurisdictions, this could still present a challenging environment for banks' operations in those markets. In addition, Australian-owned banks' funding costs could increase if emerging market concerns result in a period of generalised turbulence in global debt markets.

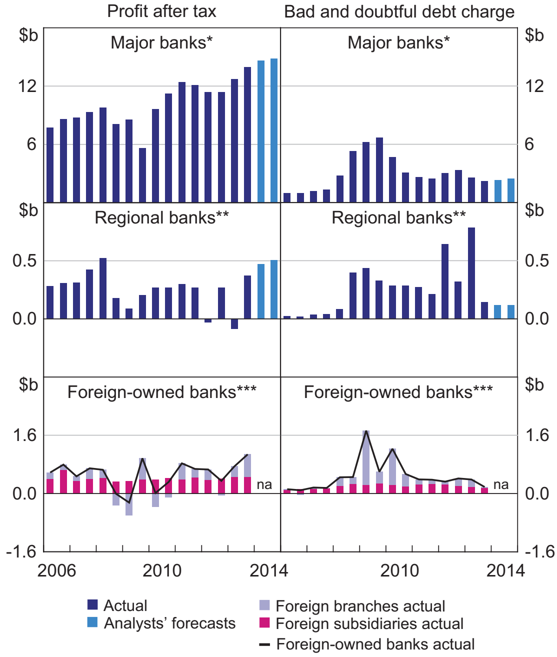
Another channel by which international shocks can, in principle, be transmitted to Australia is through the operations of foreign-owned banks located here and the connections with their offshore parent bank. That said, foreign-owned banks that are headquartered in emerging market economies represent a small share of Australian banking system assets, at 1 per cent, compared with 12 per cent for foreign banks in total. Moreover, as at September 2013, Australian-located foreign-owned banks' claims on emerging Asia were small (around $16 billion or less than 1 per cent of their total assets), and claims on other emerging economies were negligible.

Profitability

Aggregate profit of the major banks was $14 billion in their latest half-yearly results, around 23 per cent higher than the corresponding period a year earlier (Graph 2.7). The major banks' profitability was supported by a decline in their bad and doubtful debt charges. In addition, operating expenses declined slightly over the year to the latest half, compared with average annual growth of 7 per cent over the previous decade, as the major banks undertook a range of cost-cutting initiatives. Revenue growth was 6½ per cent over the year to the latest half, supported by a modest pick-up in credit growth. However, there was a slight contraction in the net interest margin, which banks attributed to several factors including the effects of the low interest rate environment, asset pricing pressures and higher deposit costs. The major banks' annual return on equity was 15 per cent in 2013, similar to that in recent years and well above the returns currently being recorded in many other advanced economy banking systems (see 'The Global Financial Environment' chapter).

A greater focus on cost containment over the past year resulted in a decline in the major banks' cost-to-income ratio – a common measure of bank efficiency.

Graph 2.7
Banks' Profit



* ANZ, NAB and Westpac report half year to March and September, while CBA reports to June and December

** Suncorp Bank and Bendigo and Adelaide Bank report half year to June and December, while Bank of Queensland reports to February and August

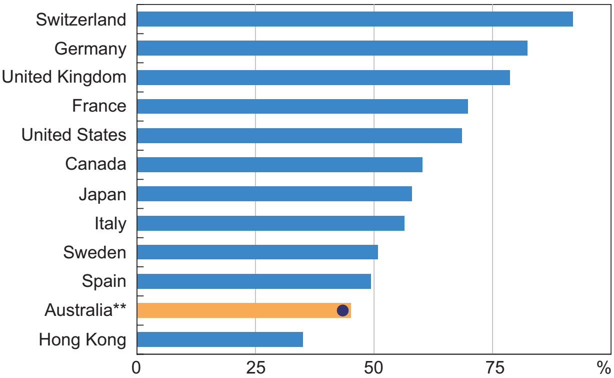
*** All results are half year to March and September

Sources: APRA; Credit Suisse; Deutsche Bank; Nomura Equity Research; RBA; UBS Securities Australia; banks' annual and interim reports

At about 43 per cent, this ratio is currently at the bottom end of the range of the major banks' peers internationally (Graph 2.8). However, cross-country differences in cost-to-income ratios are likely to be partly explained by differences in large banks' business models. Banks with a greater focus on traditional lending activity (as proxied by the share of earnings derived from net interest income) tend to have lower ratios than those that focus on other activities, such as investment banking or wealth management. The major banks' cost-to-income ratio may also be relatively low because their loan books are more weighted towards housing loans; as housing loans are more homogenous than business loans, the cost of distributing them is likely to have benefited more from technological advances.

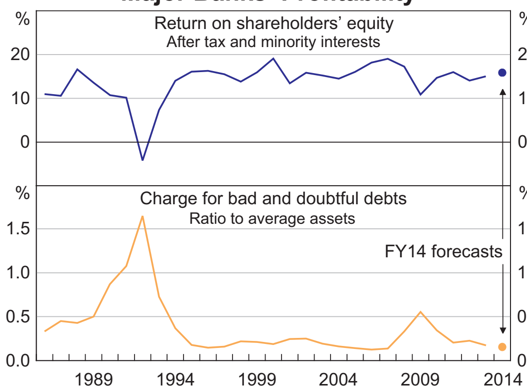
Looking ahead, equity analysts are expecting the major banks' average return on equity to increase slightly in 2014 (Graph 2.9). Revenue growth is

Graph 2.8
Large Banks' Cost-to-income Ratios*
Selected economies, 2012



* Includes four Australian banks, six Canadian banks, three French banks, four German banks, three Hong Kong banks, three Italian banks, three Japanese banks, two Spanish banks, four Swedish banks, two Swiss banks, four United Kingdom banks, and 10 United States banks
** Dot represents 2013 value
Sources: RBA; SNL Financial

Graph 2.9
Major Banks' Profitability*



* Data from 2006 are on an IFRS basis, while prior years are on an AGAAP basis; dots represent financial year 2014 analysts' forecasts
Sources: Credit Suisse; Deutsche Bank; Nomura Equity Research; RBA; UBS Securities Australia; banks' annual and interim reports

forecast to pick up, partly due to stronger credit growth, while the bad and doubtful debt charge is expected to be fairly steady at its current low level. The major banks' cost-to-income ratio is expected to decline a little.

Aggregate profit for the three regional banks (Suncorp, Bank of Queensland and Bendigo and Adelaide Bank) rebounded to $370 million in their latest half-yearly results. The small aggregate loss in the previous half year resulted from large bad and doubtful debt charges arising from Suncorp's sale of a portfolio of non-performing commercial property and corporate loans that had been in run-off. Equity analysts are forecasting the regional banks' aggregate bad debt charge to remain steady in 2014 and profit to return to its pre-crisis level. Foreign-owned banks' profit increased in their latest half-yearly results, reflecting large declines in bad and doubtful debt charges and operating expenses.

Capital

The Australian banking system has strengthened its capital position in recent years. Banks' aggregate Common Equity Tier 1 (CET1) capital ratio (on an APRA Basel III basis) stood at 8.6 per cent of risk-weighted assets (RWAs) at December 2013, while the total capital ratio was around 12 per cent (Graph 2.10). The CET1 capital ratio for credit unions and building societies (CUBS) increased over the second half of 2013, to 15.9 per cent. The high capital ratios of CUBS relative to that of the banks are partly explained by their less diversified business models and different corporate structures.

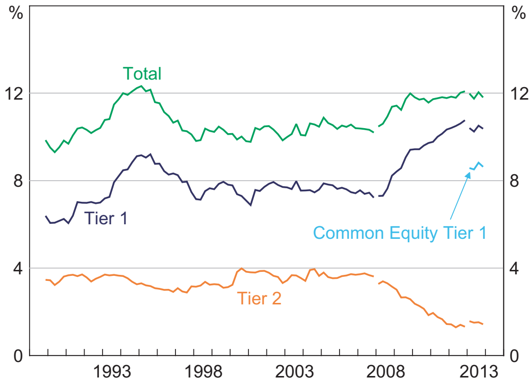
Banks' issuance of non-common equity capital instruments (sometimes referred to as 'hybrids') has remained strong, as banks replace their maturing instruments. Banks have issued about $6.6 billion of Tier 1 and Tier 2 non-common equity securities since June 2013, equivalent to 0.4 per cent of their RWAs. Take-up of these instruments has been largely from retail investors (particularly self-managed superannuation funds), who have been attracted to their relatively high yields. There were also reports that demand from institutional investors was limited by the difficulty in pricing the risk that the issuing bank will be deemed 'non-viable' by APRA, at which point the instrument converts to common equity; mandates of some fixed-income portfolios also prohibit convertible instruments. However, over recent months a couple of banks have successfully issued Tier 2 hybrid securities marketed to institutional investors only.

In December 2013, APRA released its framework for D-SIBs in Australia, which draws on the Basel Committee on Banking Supervision's

Graph 2.10

Banks' Capital Ratios*

Consolidated global operations



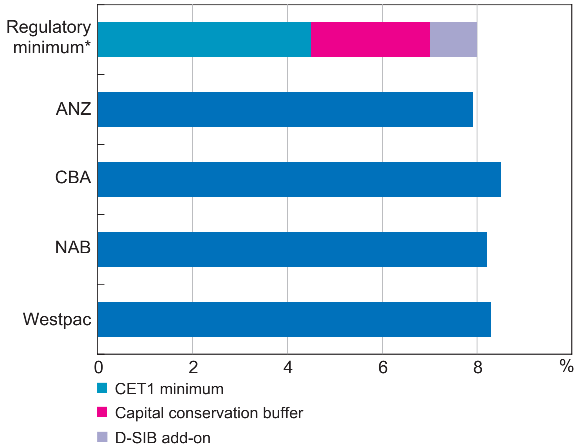
* Per cent of risk-weighted assets; break in March 2008 due to the introduction of Basel II for most ADIs; break in March 2013 due to the introduction of Basel III for all ADIs

Source: APRA

Graph 2.11

Major Banks' Common Equity Tier 1 Capital Ratios

On an APRA Basel III basis, December 2013



* The capital conservation buffer and D-SIB add-on will take effect on 1 January 2016; minimum excludes Pillar 2 add-ons

Sources: APRA; banks' financial disclosures

principles-based D-SIB framework. Under its framework, APRA identified the four major banks as D-SIBs. As a result, the major banks will be subject to a HLA capital requirement that is intended to reduce their probability of failure relative to non-systemic institutions, reflecting the greater adverse impact their failure would be expected to have on the domestic financial system and economy.[2]

In determining the major banks as D-SIBs, APRA examined four broad indicators of systemic importance – size, interconnectedness, complexity and substitutability – and found a clear distinction between the four majors and other banks (both Australian and foreign-owned), consistent with the conclusions of the International Monetary Fund.[3]

Under APRA's D-SIB framework, the major banks will be required to meet an additional CET1 capital requirement equivalent to 1 per cent of their RWAs (Graph 2.11). This will be implemented through an extension of the capital conservation buffer for D-SIBs, which becomes effective from 1 January 2016. The major banks' public disclosures indicate that their capital ratios are already close to, or above, the regulatory minimum CET1 ratio of 8 per cent that they will be required to meet from 2016 (this incorporates the CET1 minimum of 4½ per cent of RWAs, the capital conservation buffer of 2½ per cent of RWAs and the D-SIB add-on of 1 per cent of RWAs). That said, the major banks' capital targets will need to be somewhat higher than 8 per cent to take account of any capital add-ons that APRA may impose because of their risk profile, and to ensure that they have sufficient 'management capital buffers' to withstand stress conditions without breaching their minimum regulatory requirements.

Based on their current profit outlook, the major banks appear to have scope to increase their CET1 capital ratios through earnings retention. The major banks could also accumulate more common equity capital by reducing their dividend payout ratios and scaling back their purchase of shares in the market to offset dividend reinvestment plans (DRPs); this follows a period in which the banks have been increasing their dividend payout ratios and purchasing shares in the market to either partially or fully offset the boost to their common equity arising from their DRPs. Recently, the Commonwealth Bank of Australia announced that it will not neutralise the CET1 boost that it will receive from reinvestments of dividends to be paid in the June quarter 2014.

2 For further details, see APRA (2013), 'Domestic Systemically Important Banks in Australia', Information Paper, 23 December.

3 See International Monetary Fund (2012), 'Australia: Addressing Systemic Risk Through Higher Loss Absorbency – Technical Note', IMF Country Report No 12/311.

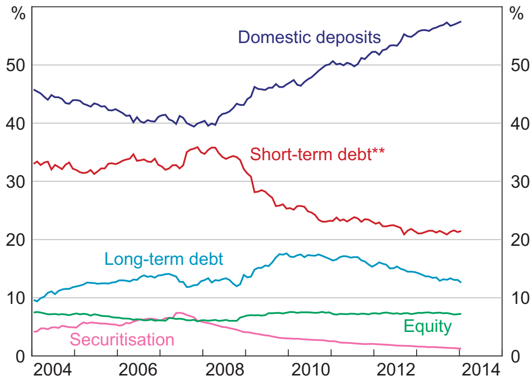
Funding and Liquidity

Banks' resilience to funding market shocks has improved over recent years due to changes in the composition of their funding (Graph 2.12). The key changes, some of which have been discussed in previous *Financial Stability Reviews*, follow.

- The share of banks' funding sourced from domestic deposits has increased from about 40 per cent in 2008 to around 57 per cent currently; this shift has been at the expense of wholesale funding.
- Short-term wholesale funding, which is typically perceived to be less stable than other forms of funding, has declined significantly. Moreover, liaison suggests that Australian banks have increased the average maturity of their short-term debt, particularly for the offshore component.
- The maturity profile of banks' bond issuance has lengthened and there are indications that the diversity of their bond investor base has also increased. This partly reflects the introduction of covered bonds in 2011, which has allowed the large banks to issue at much longer tenors than is typically the case for unsecured debt, as well as attract new investors that have AAA mandates.[4] Liaison with the major banks indicates that their recent unsecured bond issues have involved a wider range of investors than a few years ago.

Over the past six months, banks' net deposit flows have continued to significantly exceed their net credit flows: banks' deposits are currently growing at an annualised rate of about 9 per cent, well above credit growth of around 4½ per cent. Growth in deposits over the past six months has been entirely due to growth in at-call account balances, consistent with the more attractive pricing of some at-call savings accounts relative to term deposit accounts. Liaison with banks suggests that the shift towards at-call savings accounts partly reflects customers' desire to avoid locking in low deposit rates.

Graph 2.12
Banks' Funding*
Domestic books, share of total



* Adjusted for movements in foreign exchange rates
** Includes deposits and intragroup funding from non-residents
Sources: APRA; RBA; Standard & Poor's

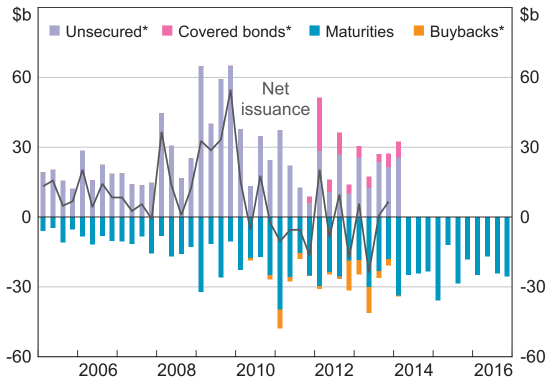
With growth in deposits outpacing credit, banks have been able to further reduce the share of their balance sheets that are funded by wholesale debt. Banks' total bond issuance was below their total bond maturities and buybacks of government guaranteed bonds in the past year (Graph 2.13). This has been despite a narrowing in bank bond spreads during this period: spreads between Commonwealth Government securities (CGS) and the major banks' unsecured bonds are currently around their lowest level since the onset of the financial crisis, while for covered bonds, spreads to CGS are at their lowest level since Australian banks started issuing these securities in late 2011.

Spreads for banks' residential mortgage-backed securities (RMBS) are also currently around their lowest level since late 2007 (Graph 2.14). Australian banks have taken advantage of the more favourable conditions over the past year by modestly increasing their issuance. In November 2013, APRA announced that it was working on changes to its prudential framework for securitisation.[5] APRA will consult on its proposals which are based on simple, low-risk structures to enable ADIs to use securitisation as a funding tool and for capital relief.

4 For further details on covered bond issuance, see Aylmer (2013), 'Developments in Secured Issuance and RBA Reporting Initiatives', Address to the Australian Securitisation Forum, Sydney, 11 November.

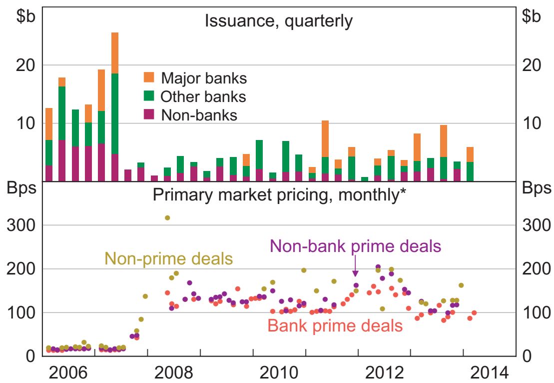
5 For more details, see Littrell (2013), 'Prudential Reform in Securitisation', Speech to the Australian Securitisation Forum, Sydney, 11 November.

Graph 2.13
Banks' Bond Issuance and Maturities
A$ equivalent



* March 2014 is quarter-to-date
Source: RBA

Graph 2.14
Australian RMBS



* Face value weighted monthly average of the primary market spread to bank bill rate
Source: RBA

The shift in Australian banks' funding composition over recent years is part of a broader reappraisal of funding risks by banks and markets globally, in light of experiences in the financial crisis. New liquidity rules, to apply in Australia from 2015, have reinforced the need for banks to hold a prudent buffer of liquid assets and will help ensure that banks continue to manage their liquidity risks prudently when market pressures to do so inevitably wane.

Under APRA's liquidity standard, banks will be required to demonstrate to APRA that they have taken 'all reasonable steps' to meet the Liquidity Coverage Ratio (LCR) through their own balance sheet management, before relying on the Reserve Bank's Committed Liquidity Facility (CLF) for this purpose. Banks are putting in place a range of initiatives to help manage their regulatory liquidity requirements – that is, reducing their expected net cash outflows within a 30-day window. For example, a number of banks have introduced or are planning to introduce accounts that require depositors to give a certain period of notice before withdrawing funds, while some banks have indicated that they are refining the terms and pricing of their deposits accounts and undrawn credit facilities.

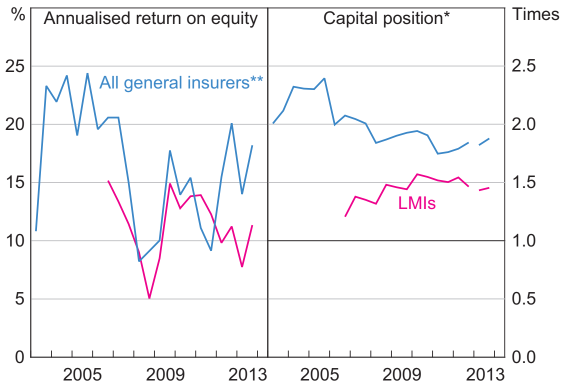
To prepare for the introduction of the LCR, APRA conducted a trial exercise in 2013 that assessed banks' pro forma funding plans and applications for the CLF. Based on this exercise, APRA indicated that some banks need to strengthen their liquidity risk management framework, such as by altering remuneration arrangements for staff with responsibility for managing liquidity risk or improving their approach to liquidity transfer pricing (to ensure that liquidity costs are effectively reflected across the bank's business units).[6] APRA notionally granted banks a total CLF amount of $282 billion following the trial exercise; this figure will be refined later this year based on a formal process. Individual banks' actual CLF will need to be secured against assets that are eligible for the Reserve Bank's normal market operations, including securities issued by other banks. Self-securitised assets will also be eligible collateral for the CLF. Against this background, banks' holdings of self-securitised RMBS have increased substantially in recent years, and currently total around $220 billion (8 per cent of their Australian dollar domestic assets).

Insurance

The profitability of the general insurance industry remains strong: annualised return on equity was 18 per cent in the second half of 2013 (Graph 2.15). General

6 For further details, see APRA (2014), 'Implementation of the Basel III Liquidity Framework in Australia: Committed Liquidity Facility', Letter to Authorised Deposit-taking Institutions, 30 January.

Graph 2.15
Financial Performance of General Insurers

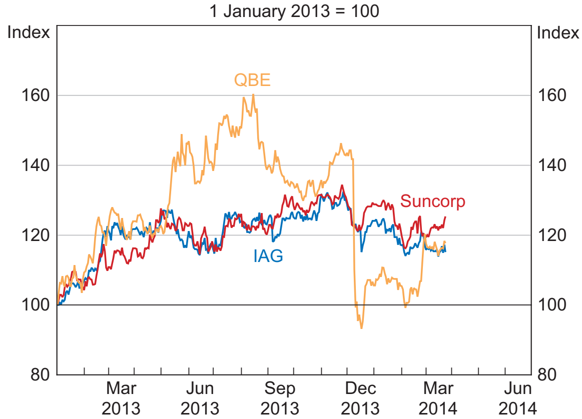


* Capital held relative to respective regulatory minimum; break due to capital reforms implemented at the start of 2013

** Includes lenders mortgage insurers (LMIs)

Source: APRA

Graph 2.16
Large General Insurers' Share Prices



Source: Bloomberg

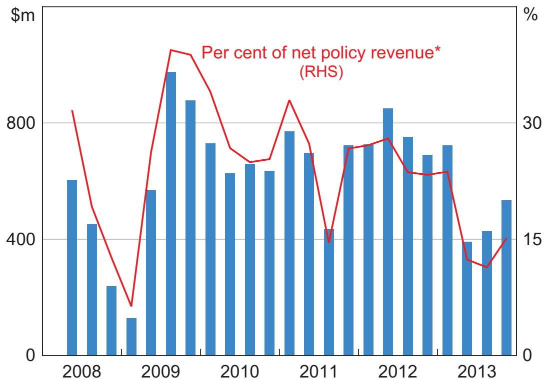
insurers' domestic profits have been underpinned by premium rate increases following the natural catastrophes in 2011 and 2012, and catastrophe claims were relatively low in 2013. The industry is expecting slower premium rate growth in the period ahead due to stronger competition, particularly in those business lines that have experienced strong premium rate growth recently, such as home insurance. These competitive pressures increase the risk that insurers respond by relaxing pricing and reserving policies to maintain market share.

Over the past couple of decades the largest Australian general insurers have sought to expand their overseas operations by acquiring foreign insurers. As discussed in the September 2013 *Review*, overseas expansion can increase an insurer's diversification but also introduce an insurer to a range of different risks. To protect the operation of the local insurance industry, APRA supervises insurers on a globally consolidated basis and requires insurance groups to hold capital at both the individual entity and consolidated group level. As an example of these risks, in February 2014, QBE reported a large loss in its international operations for 2013, entirely due to its North American division. Although QBE's share price fell by 22 per cent on the day it provided a warning of this result in December 2013, it has since recovered somewhat (Graph 2.16).

The profitability of lenders mortgage insurers (LMIs) improved in the second half of 2013, although it remains much lower than the remainder of the general insurance industry. LMIs' claims expense declined in the most recent period, consistent with the strengthening housing market and earlier improvements to underwriting standards. Given LMIs face risk that is concentrated in a severe housing market downturn, APRA sets LMIs' capital requirements on this basis; as at December 2013, LMIs' capital exceeded this requirement.

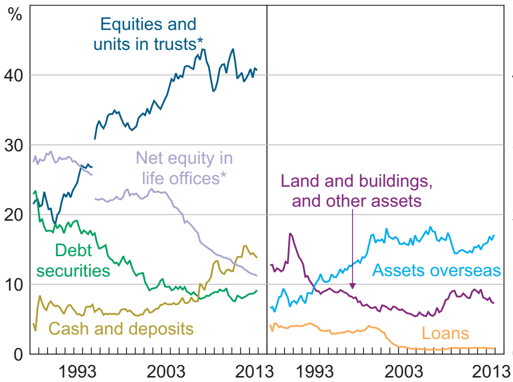
The life insurance industry is currently facing a difficult operating environment. Life insurers' profit – both in levels and as a share of net policy revenue – has declined substantially, reflecting a number of structural and cyclical issues (Graph 2.17). Strong competition for superannuation 'group' life insurance policies led to an under-pricing of risk over recent years, partly because insurers did not allow enough for their reduced knowledge of the health of individuals insured in a group (which is more limited than that for individual policies). There has also been an increase in disability insurance claims since 2010, particularly relating to stress and mental illness. Policy lapse rates have also been increasing, which may be due to households cutting back on discretionary expenses, or incentives for financial advisors being tilted towards obtaining

Graph 2.17
Life Insurers' Profit After Tax



* Net policy revenue is gross premium revenue less reinsurance expense
Source: APRA

Graph 2.18
Composition of Superannuation Assets
Per cent of total, unconsolidated



* Reclassification by ABS from June 1995
Source: ABS

new business rather than focusing on long-term customer retention. APRA has introduced measures to improve the collection of insurance information by superannuation funds, and is monitoring life insurers' efforts to adjust their group insurance business practices.

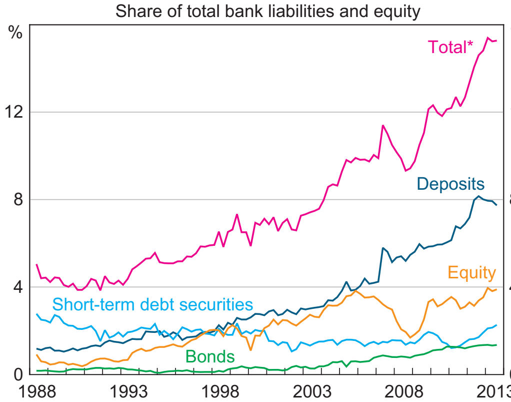
Managed Funds

The consolidated assets held by Australian funds management institutions grew at an annualised rate of 15 per cent over the six months to December 2013, to $1.8 trillion (Table 2.2). Growth was driven by more favourable conditions in financial markets, including equity and corporate debt markets. Superannuation funds, which account for around three-quarters of assets, recorded the strongest growth in assets under management.

Within superannuation assets, equities and units in trusts represented around 40 per cent of the total at December 2013, with overseas assets and cash and deposits each about another 15 per cent (Graph 2.18). Although the share of cash and deposits has been broadly steady over the past year, it is notable that it has roughly doubled over the past decade. Factors contributing to the higher allocation to cash and deposits include the ageing profile of beneficiaries and an increase in the relative rates of return on deposits since the global financial crisis. In addition, self-managed superannuation funds have a greater preference for cash and deposits, and the proportion of superannuation fund assets held by these funds has increased over this period.

The higher allocation of superannuation fund assets in cash and deposits is mirrored in the rising share of funding that banks receive from superannuation deposits (Graph 2.19). The higher allocation to cash and deposits (among other claims on banks) means that banks and superannuation funds are now more interconnected than they were a decade ago. Moreover, as the population ages there is the potential for a further increase in superannuation

Graph 2.19
Superannuation Funds' Claims on Banks
Share of total bank liabilities and equity



* Total financial claims of superannuation funds against banks
Source: ABS

Table 2.2: Assets of Domestic Funds Management Institutions
As at December 2013

	Level	Share of total	Six-month-ended annualised change	
			Jun 2013	Dec 13
	$ billion	Per cent	Per cent	Per cent
Superannuation funds	1 702	74	15.4	18.9
Life insurers(a)	274	12	7.6	14.9
Public unit trusts	278	12	4.4	2.3
Other managed funds(b)	37	2	–12.6	–13.5
Total (unconsolidated)	**2 290**	**100**	**12.3**	**15.5**
of which:				
Cross investments	469	–	13.6	18.1
Total (consolidated)	**1 821**	–	**12.0**	**14.9**

(a) Includes superannuation funds held in the statutory funds of life insurers
(b) Cash management trusts, common funds and friendly societies
Sources: ABS; RBA

deposits; while such a development could be favourable for banks and beneficiaries, it could give rise to concentration risk in superannuation portfolios and banks' funding.

Financial Market Infrastructure

Financial market infrastructures (FMIs), such as payments systems, central counterparties (CCPs) and securities settlement systems, facilitate most financial transactions and trading activity in the economy. By their nature, FMIs are highly interconnected with other parts of the financial system, especially the banking system. The stability of FMIs, and the risk management practices they adopt, are therefore of particular importance to financial stability.

Reserve Bank Information and Transfer System

The Reserve Bank Information and Transfer System (RITS) settles obligations arising from the exchange of domestic interbank payments and securities transactions in Australian dollars. RITS continued to function smoothly over the past six months, settling around five million payments worth $19 trillion.

Obligations arising from the clearing of low-value payments (cheques, direct entry and retail card transactions) are settled in RITS on a multilateral net basis. Over the past six months, the average daily gross value of these payments was $17 billion, or 10 per cent of total daily payments settled in RITS. Until recently, all low-value payments were settled on a deferred net basis as a part of the single, low-value payments batch at 9.00 am on the business day after the exchange of payments. From 25 November 2013, five multilateral net batches were added for direct entry obligations only, at 10.45 am, 1.45 pm, 4.45 pm, 7.15 pm and 9.15 pm. These new arrangements allow direct entry payments to be settled in a more timely fashion, on a same-day basis, and also reduce the credit exposure that can arise when payments are posted to customer accounts ahead of interbank settlement. The introduction of same-day settlement has proceeded smoothly, with all 13 banks that participate directly in the settlement of direct entry obligations using the new arrangements successfully from the first day of operation.

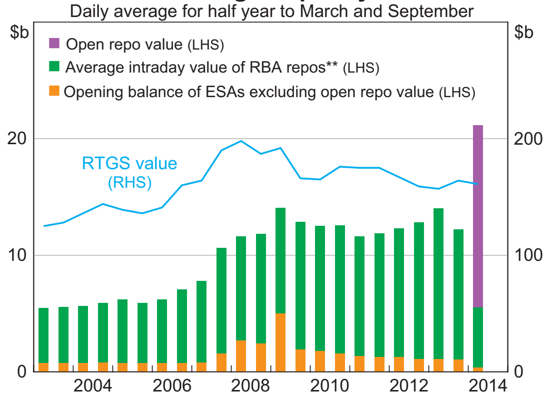
To accommodate the same-day settlement of direct entry obligations, the Reserve Bank has made changes to the provision of liquidity for RITS participants. Two of the five new multilateral batches (at 7.15 pm and 9.15 pm) settle outside of normal banking hours and generate settlement obligations unknown prior to the closure of the interbank cash market. To allow participants to meet these funding requirements with minimal disruption to their existing practices, the Reserve Bank introduced a new liquidity solution whereby it makes Exchange Settlement Account (ESA) funds available to participants via repurchase agreements (repos) with an open-ended repurchase date that is contracted at the cash rate target.[7] To the extent that ESA holders retain matching funds in their ESA against their open repo position, those ESA balances are compensated at the Reserve Bank's cash rate target. Any surplus ESA funds earn a rate 25 basis points below the cash rate target, while any shortfall incurs a 25 basis point penalty. In this way, the incentive for participation in the interbank cash market is preserved, while sufficient liquidity is still provided to allow RITS participants to meet obligations arising from after-hours settlement of payment obligations.

In general, open repos have only been adopted by those participants required to do so for late direct entry settlement, and have largely replaced the use of intraday repos by those participants. With the value of open repos significantly greater than the intraday repos they replaced, total system intraday liquidity has increased significantly over the past six months, from about 8 per cent to 13 per cent of settlement values (Graph 2.20). As well as facilitating the settlement of direct entry payments later in the day, the effect of this additional liquidity has been seen in shorter settlement queue times for real-time gross settlement (RTGS) payments, which have declined by 43 per cent.

To monitor the safety and stability of the payments system, the Reserve Bank has periodically completed self-assessments of RITS against relevant international standards. Since the publication of the Principles for Financial Market Infrastructures by the

7 For further details, see RBA (2013), 'Operations in Financial Markets', *Reserve Bank of Australia Annual Report 2013*, October.

Graph 2.20
Average Liquidity*
Daily average for half year to March and September



* March 2014 is six-months-to-date
** Measured as the average balance of intraday RBA repos during the Daily Settlement Session; not adjusted for overnight repos
Source: RBA

Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions in 2012, the Bank has committed to carrying out these self-assessments annually. The first assessment against the new standards, published in December 2013, concluded that RITS observed all the relevant internationally agreed principles. However, to ensure high standards are maintained, some tasks were identified for future action, including a comprehensive review of the RITS Regulations and Conditions of Operation, and enhancements to the resilience of RITS by an upgrade of its core infrastructure.

Use of CCPs for clearing OTC derivatives

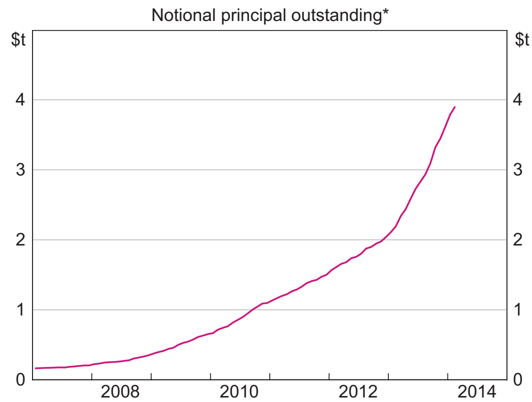
While Australian authorities continue to work towards introducing mandatory central clearing for certain standardised over-the-counter (OTC) derivatives (see the 'Developments in the Financial System Architecture' chapter), the voluntary transition to central clearing of standardised contracts is accelerating. As noted in the September 2013 *Review*, two CCPs – LCH.Clearnet Ltd (LCH.C Ltd) and ASX Clear (Futures) – received regulatory approval in July 2013 to offer their OTC interest rate derivatives clearing services in Australia. This means that domestic participants can now become direct participants in these CCPs, while in some cases also continuing to clear OTC interest rate derivatives indirectly (that is, as clients of another bank) through LCH.C Ltd or the Chicago Mercantile Exchange (CME).

- Two Australian banks have joined as direct participants of LCH.C Ltd's SwapClear service. The other large Australian banks have client clearing arrangements that allow them to clear trades indirectly through this service; these banks are expected to join as direct participants in coming months.
- ASX Clear (Futures) now has eight active OTC derivatives participants and, by January 2014, had cleared a notional outstanding of around $5 billion in Australian dollar-denominated interest rate derivatives. In parallel, ASX continues to work towards developing its OTC client clearing service, which it plans to launch in early April 2014. This will allow smaller market participants who are unable to meet ASX Clear (Futures) participation requirements to centrally clear OTC derivatives as clients of a direct participant. The rule changes to give effect to this service are now in place and ASX has commenced participant testing of the operational arrangements.

ASX has also recently introduced some refinements to its arrangements for managing the potential default of an OTC derivatives participant. Since OTC derivatives markets are less liquid than exchange traded markets, the standard approach that is adopted by OTC derivatives CCPs when managing the default of a participant is to hedge the defaulter's OTC derivatives portfolio, before auctioning the hedged portfolio to non-defaulting participants. To provide advice and assist with the hedging process, OTC CCPs second experts from non-defaulting OTC participants. ASX's default management arrangements are consistent with this approach. To enhance this ASX recently introduced a mechanism that incentivises surviving participants to bid competitively at a default management auction. This mechanism works by ordering the allocation of any losses to be met by survivors' contributions to default resources according to the quality of their bids.

In addition to the interest rate derivatives cleared through ASX, the notional value of Australian dollar-denominated interest rate derivatives cleared through CME and LCH.C Ltd reached A$3.9 trillion at the end of February 2014 (Graph 2.21). This includes clearing by domestic and overseas participants, both as direct and indirect participants. The total of all currencies cleared by LCH.C Ltd and CME for Australian banks continues to grow, reaching US$1.5 trillion by the end of December 2013. Industry feedback suggests that almost all new interbank transactions are being centrally cleared, while historical positions are expected to be back-loaded into CCPs over the next few years. ✠

Graph 2.21
A$ Interest Rate Derivatives Cleared at Global CCPs



* CCP figures adjusted for the double counting that occurs when a trade is novated
Sources: CME; LCH.Clearnet/SwapClear

3. Household and Business Finances

The financial position of the household sector overall was little changed in 2013, although there is evidence that the risk appetite of some households has increased, particularly for purchasing property. The momentum in housing lending has broadened over the last six months. At the time of the September 2013 *Financial Stability Review*, a sharp pick-up in lending to investors and repeat-buyer owner-occupiers in New South Wales was evident, but in the past six months lending in some other states has also increased solidly. Present conditions in the housing market are not assessed as posing a near-term risk to financial stability. Nonetheless, the recent pick-up in momentum warrants close monitoring. It will be important for both investors and owner-occupiers to understand that a cyclical upswing in housing prices when interest rates are low cannot continue indefinitely, and they should therefore not base their decisions on an extrapolation of recent outcomes.

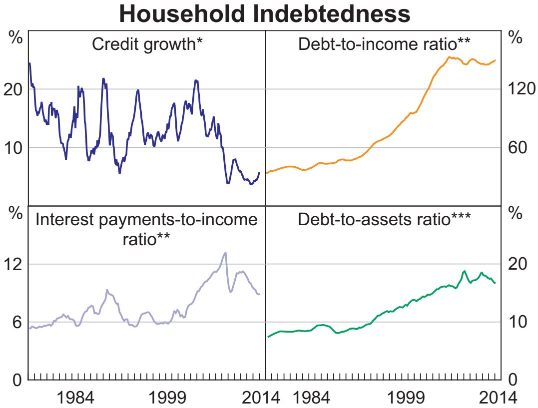
The financial position of the business sector is also little changed from that reported in September 2013. Balance sheets are generally in good shape with gearing and interest burdens at fairly low levels. Conditions appear to have improved over recent months to be around their long-run average level and indicators of business distress have generally continued to ease. In line with moderate investment intentions, businesses' appetite for debt remains subdued, although the process of deleveraging that occurred following the financial crisis appears to be now largely complete. In the commercial property market, the disconnect between prices and rents that was reported six months ago for office property has continued and broadened beyond Sydney and Melbourne.

Household Sector

Saving and borrowing behaviour

Households have continued to demonstrate greater prudence in managing their finances than they did a decade ago. The household saving ratio has remained within its range of recent years, at around 10 per cent. The proportion of disposable income required to meet interest payments on household debt is estimated to have stabilised over the past six months, having previously declined in line with the fall in mortgage interest rates in recent years (Graph 3.1). Many households have used lower interest rates to continue paying down their mortgages more quickly than required. As a

Graph 3.1
Household Indebtedness



* Six-month annualised
** RBA estimate for March quarter 2014
*** RBA estimates for December quarter 2013 and March quarter 2014
Sources: ABS; APRA; RBA; RP Data-Rismark

result, the aggregate mortgage buffer – balances in mortgage offset and redraw facilities – has risen to almost 15 per cent of outstanding balances, which is equivalent to around 24 months of total scheduled repayments at current interest rates. This suggests that many households have considerable scope to continue to meet their debt obligations even in the event of a temporary spell of reduced income or unemployment.

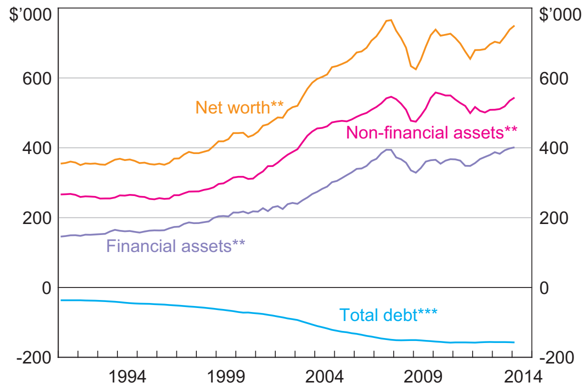
Households' appetite for debt appears to have increased modestly since the previous *Financial Stability Review*, driven by low mortgage interest rates and increasing asset prices. In line with this, household credit growth (which had been subdued over the previous three years or so) picked up to around 6 per cent in annualised terms over the six months to January. This was despite credit growth continuing to be held down by prepayments and the low value of first home buyer loan approvals (discussed below), which typically translate into larger increases in housing credit than loans to other borrowers. Household gearing and indebtedness remain around historically high levels; hence, with the unemployment rate trending upwards, continued prudent borrowing and saving behaviour is needed to underpin households' financial resilience.

Wealth and investment preferences

Household wealth has continued to increase in recent quarters: real net worth per household is estimated to have risen by around 6½ per cent over the year to March, though it remains 2 per cent below its 2007 peak (Graph 3.2). Since the recent trough in December 2011, the recovery in real net worth per household has been due to growth in both households' financial and non-financial assets, reflecting rising share and housing prices and continued net inflows into superannuation.

The continued low interest rate environment, together with rising asset prices, has encouraged a shift in households' preferences toward riskier, and potentially higher-yielding, investment options. In particular, there has been a marked pick-up in

Graph 3.2
Real Household Wealth and Debt*
Per household



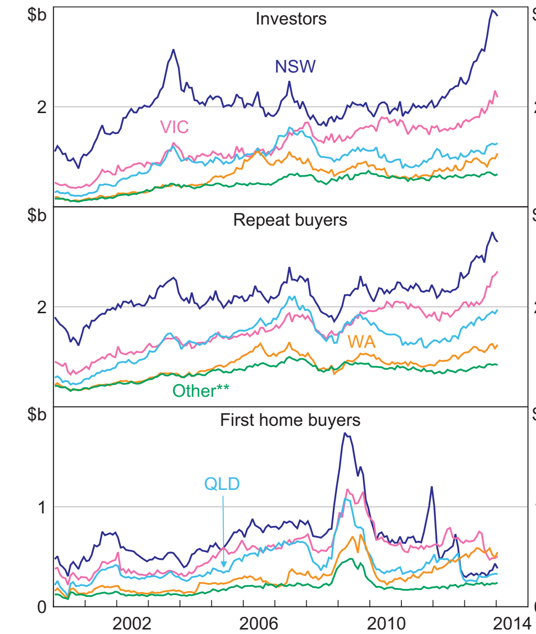
* In 2011/12 dollars; deflated using the household final consumption expenditure implicit price deflator
** RBA estimates for December quarter 2013 and March quarter 2014; includes unincorporated businesses
*** RBA estimate for March quarter 2014; excludes unincorporated businesses
Sources: ABS; RBA; RP Data-Rismark

housing loan approvals to investors, as well as to repeat-buyer owner-occupiers (although there may be some misreporting that is suppressing indicators for the first home buyer category). Six months ago, a sharp increase in housing lending to these types of borrowers was underway in New South Wales but, more recently, prices and demand have begun to pick up in some other states (Graph 3.3).

Housing demand has been particularly strong in Sydney and Melbourne and the strengthening in these markets is evident in a range of indicators (Graph 3.4). For instance, investors now make up more than 40 per cent of the value of total housing loan approvals in New South Wales – similar to the previous peak reached in 2003 – and the share is also approaching earlier peaks in Victoria. In addition, in Sydney the auction clearance rate remains at a historically high level and housing turnover (sales) has picked up since the middle of 2013. Improved market conditions are also boosting dwelling construction, particularly for higher-density housing in Sydney and Melbourne.

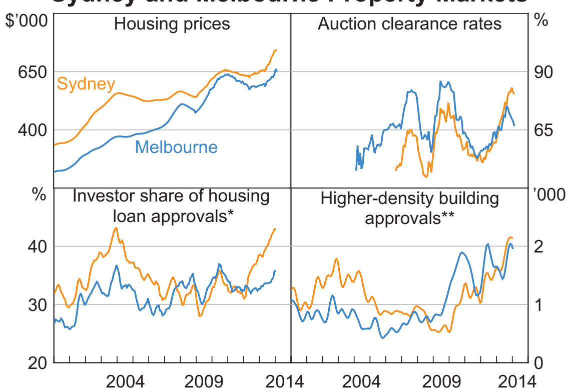
Stronger activity in the housing market, particularly by investors, can be a signal of speculative demand, which can exacerbate property price cycles and encourage unrealistic expectations of future

Graph 3.3
Housing Loan Approvals*



* Excludes construction; investor approvals include refinancing
** Other includes Australian Capital Territory, Northern Territory, South Australia and Tasmania
Sources: ABS; APRA; RBA

Graph 3.4
Sydney and Melbourne Property Markets



* Data for New South Wales and Victoria; three-month moving average; excludes construction, includes refinancing
** Monthly; 13-period Henderson trend
Sources: ABS; APM; RBA; REIV; RP Data-Rismark

housing price growth among property purchasers. Alongside the low interest rate environment, factors that have contributed to the recent increase in the investor share of new lending include:

- banks' practices in assessing loan serviceability. Typically, the interest rate used by banks to calculate maximum loan sizes does not fall by as much as actual interest rates (if at all) because many banks apply interest rate add-ons that have increased as interest rates have fallen. Consequently, borrowers who are more constrained by the serviceability criteria, such as first home buyers, have relatively less scope to increase their loan size as interest rates fall. However, borrowers for whom these constraints are not binding (such as investors, who tend to have higher incomes and/or larger deposits) can increase their loan size and are therefore able to make higher offers to secure a property
- reductions in state government incentives for first home buyers, notably for established dwellings. These changes to incentives have led to reduced demand by first home buyers relative to other buyers, particularly in New South Wales, Victoria and Queensland. Incentives for new construction, however, remain in all states.

More generally, an upsurge in speculative housing demand would be more likely to generate financial stability risks if it brought forth an increase in construction of a scale that led to a future overhang of supply and a subsequent decline in housing prices. At a national level, Australia is a long way from the point of housing oversupply, though localised pockets of overbuilding are still possible. While the recent pick-up in higher-density dwelling construction approvals in Sydney and Melbourne warrants some monitoring, the near-term risk of oversupply in those cities seems low. Indeed, concerns expressed by lenders about possible oversupply in the Melbourne apartment market over the past year seem to have lessened, despite rental yields there remaining quite low.

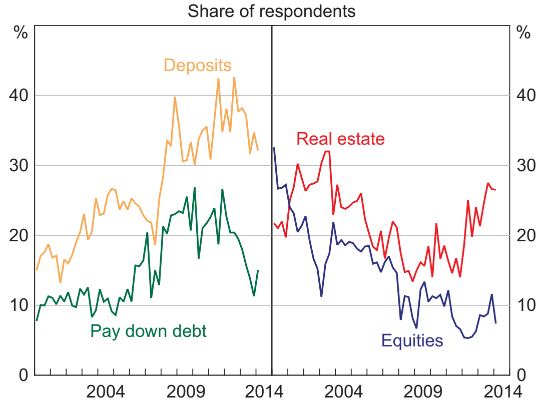
A build-up in investor activity may also imply a changing risk profile in lenders' mortgage exposures. Because the tax deductibility of interest expenses on investment property reduces an investor's incentive to pay down loans more quickly than required, investor housing loans tend to amortise more slowly than owner-occupier loans. They are also more likely to be taken out on interest-only terms. While these factors increase the chance of investors experiencing negative equity, and thus generating loan losses for lenders if they default, the lower share of investors than owner-occupiers who have high initial loan-to-valuation ratios (LVRs; that is an LVR of 90 per cent or higher) potentially offsets this. Indeed, the performance of investor housing loans has historically been in line with that of owner-occupier housing loans (see discussion of recent trends in loan performance in the following section).

Available evidence suggests that there are two sources that are providing some additional demand for housing: non-resident investors and self-managed superannuation funds (SMSFs). Lending to these borrowers, however, remains only a small share of total housing lending. As highlighted in the previous *Financial Stability Review*, the rapid growth in SMSF assets as a share of total superannuation assets is noteworthy given that SMSFs tend, compared with other funds, to allocate a high share of their assets to direct property holdings (around 16 per cent) for which they can borrow under limited recourse arrangements. In December 2013, Genworth – the largest insurer in the Australian mortgage market – tightened their underwriting criteria for residential property loans to SMSFs. New criteria included a minimum asset requirement and a restriction on the use of new property – that is, property that has been completed for less than 12 months and/or has not been previously sold since construction – as collateral. The major banks that lend to SMSFs also have their own criteria in place.

On balance, therefore, while the pick-up in investor activity in the housing market does not appear to pose near-term risks to financial stability, developments will continue to be monitored closely for signs of excessive speculation and riskier lending practices.

Alongside the increase in housing demand, there is some evidence to suggest that the continued low interest rate environment is encouraging a broader increase in households' appetite for risk. According to survey data, the share of households that are of the view that paying down debt is the 'wisest' use of their savings has fallen significantly since late 2011 (Graph 3.5). Similarly, the share favouring deposits remains well below its 2012 peak. At the same time, and consistent with the increase in investor activity in the housing market, the share of households favouring real estate has risen to a level approaching that of the early 2000s property market boom.

Graph 3.5
Wisest Place to Save
Share of respondents



Source: Melbourne Institute and Westpac

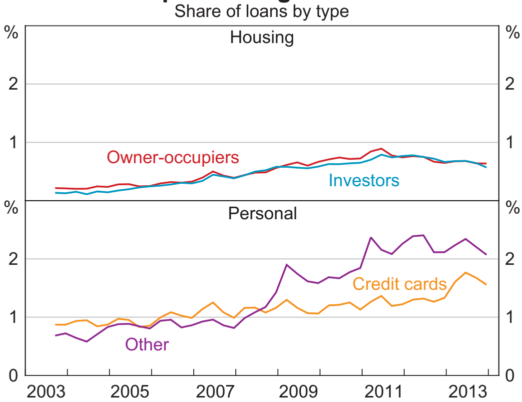
Another avenue through which households may be taking more risk is by investing in complex high-yielding securities. In recent years, mortgage originators have established investment funds that make the high-risk tranches of mortgage-backed securities more accessible to retail investors. Although the size of these retail securitisation funds is currently quite small, they have grown strongly. It is important that the potential risks associated with these products are adequately communicated to, and understood by, households.

Loan performance and other indicators of household financial stress

Aggregate indicators of financial stress generally remain low, despite the gradual increase in the unemployment rate since early 2012. As noted in the chapter 'The Australian Financial System', the share of banks' housing loans that are non-performing has steadily declined since peaking in mid 2011, and this has been broadly based across owner-occupiers and investors (Graph 3.6). Non-performance rates on banks' credit card and other personal lending – which are inherently riskier and less likely to be secured than housing loans – have declined slightly over the six months to December 2013, following an upward trend over the previous five years. These loan types account for a very small share of total household credit.

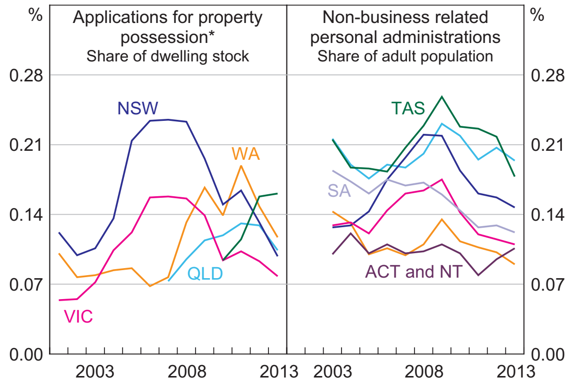
Other indicators of household financial stress are consistent with the generally low and declining housing loan non-performance rates. The total number of court applications for property possession in the mainland states (for which data are available) declined in 2013, but was higher in Tasmania, consistent with the upward trend in housing loan arrears in that state since the mid 2000s (Graph 3.7). The total number of non-business related personal administrations – bankruptcies, debt agreements

Graph 3.6
Banks' Non-performing Household Loans
Share of loans by type



Sources: APRA; RBA

Graph 3.7
Indicators of Financial Stress



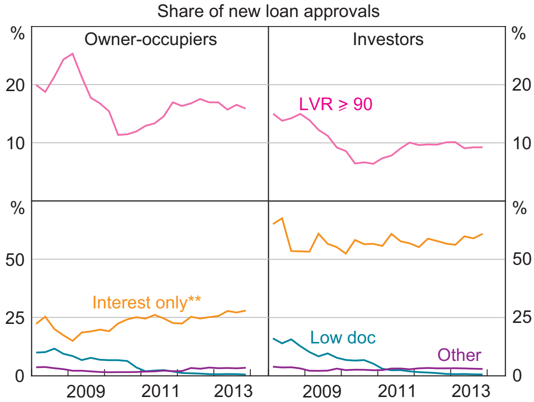
* Includes applications for some commercial properties; data only available for five states; data for Tasmania on financial year basis
Sources: ABS; AFSA; RBA; state supreme courts

and personal insolvency agreements – was lower across most of Australia in 2013.

Lending standards

Given that low interest rates and rising housing prices have the potential to encourage speculative activity in the housing market, one area that warrants particular attention is banks' housing loan practices. Data on the characteristics of housing loan approvals suggest that lending standards in aggregate have generally been little changed since late 2011 (Graph 3.8). While there are signs

Graph 3.8
Banks' Housing Loan Characteristics*
Share of new loan approvals



* LVR = loan-to-valuation ratio; 'Other' includes loans approved outside normal debt-serviceability policies, and other non-standard loans
** Series is backcast before December 2010 to adjust for a reporting change by one bank
Sources: APRA; RBA

of an increase in high-LVR lending among some institutions, the aggregate share of banks' housing loan approvals with high LVRs is around 13 per cent and has remained fairly steady for the past two years. Low-doc lending continued to account for less than 1 per cent of loan approvals in the December quarter 2013.

In aggregate, the interest-only share of new lending has been slightly below 40 per cent in recent quarters, following its gradual rise since 2009. While interest-only loans tend to amortise more slowly than standard loans that require the repayment of principal and interest, banks have noted in liaison that some borrowers with interest-only loans pay back principal during the interest-only period and therefore build up mortgage buffers. It is also common practice for banks to require borrowers to demonstrate the ability to service the higher principal and interest payments that follow expiry of the interest-only period, potentially reducing the number of borrowers that may fall into difficulty when required repayments increase. This practice is consistent with requirements under the *National Consumer Credit Protection Act 2009*, which strengthened the responsible lending obligations on lenders.

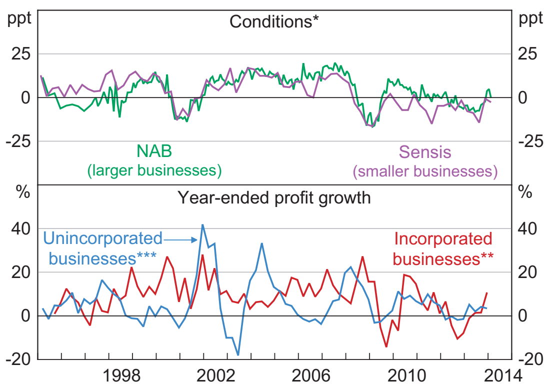
Changes to Australia's consumer credit-scoring framework (facilitated by amendments to the *Privacy Act 1988*) came into effect in March 2014. These changes, known as comprehensive credit reporting (CCR), allow credit providers to share a broader array of borrower information with credit-scoring agencies than previously, including borrowers' credit limits and detailed information on repayment behaviour over the previous two years. Similar reporting systems are already operating overseas. Formerly, credit-scoring agencies' access to borrower repayment information was limited to negative credit events, such as defaults and bankruptcies. CCR should act to reduce informational asymmetries between borrowers and lenders, and may allow lenders to be more risk sensitive in their lending decisions (for example, through more risk-based loan pricing), especially for new customers. The transition to CCR is likely to be gradual over the next few years.

Business Sector

Business conditions and indicators of business stress

Conditions have generally improved for businesses over the past six months, supported by increased spending by households, low business lending interest rates and the depreciation of the Australian dollar. This is reflected in business survey measures that indicate that conditions for both smaller and larger businesses are now around long-run average levels (Graph 3.9). This improvement has been broadly based across industries, although there are some industries where conditions are still some way below long-run average levels. There are also a few sectors that are facing structural challenges. Therefore, despite the general improvement in conditions, some businesses are likely to continue with a more conservative approach to managing their finances in the period ahead.

Graph 3.9
Business Conditions and Profitability

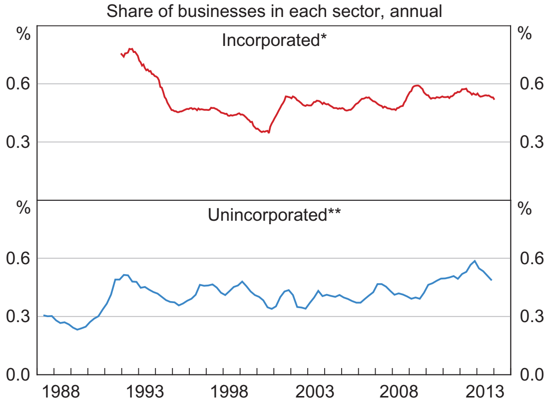


* Net balance, deviations from average since 1989; Sensis data scaled to have the same mean and standard deviation as the NAB survey
** Gross operating profits; inventory-valuation adjusted
*** Gross mixed income
Sources: ABS; NAB; RBA; Sensis

With improved conditions, business profits increased over 2013, after contracting through most of 2012. Profits of non-financial incorporated (typically larger) businesses grew around 11 per cent over the year to December 2013; this was driven by a 35 per cent increase in mining profits, while for incorporated businesses outside of the mining sector profits rose by 1 per cent. Profits of unincorporated (typically smaller) businesses grew only modestly over the year. Analysts expect more broadly based profit growth for ASX 200 companies in 2014/15, forecasting growth of around 10 per cent for both resources companies and other non-financial corporations.

The early signs of improvement in the business sector's operating environment are reflected in some indicators of business stress. This is particularly evident for unincorporated businesses, for which the failure rate declined in 2013, reversing a steady increase for several years prior (Graph 3.10). The rate for incorporated businesses has fallen steadily since early 2012. Failures of incorporated businesses remained concentrated in the business and personal services, and construction industries, although the pick-up in activity in the housing market should help underpin financial performance in some parts of the construction industry in the period ahead.

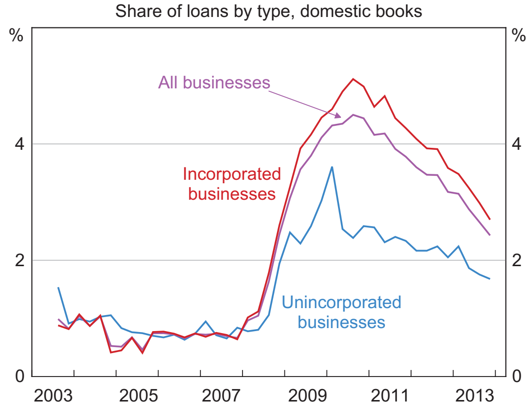
Graph 3.10
Business Failures
Share of businesses in each sector, annual



* Companies entering external administration
** Includes business-related personal bankruptcies and other administrations
Sources: ABS; AFSA; ASIC; RBA

As discussed in the chapter 'The Australian Financial System', the share of banks' business loans that are non-performing has continued to decline in recent quarters, with the rates for both incorporated and unincorporated businesses steadily trending lower since their respective peaks in 2010 (Graph 3.11).

Graph 3.11
Banks' Non-performing Business Loans*
Share of loans by type, domestic books



* Excludes lending to financial businesses and includes bills and debt securities
Sources: APRA; RBA

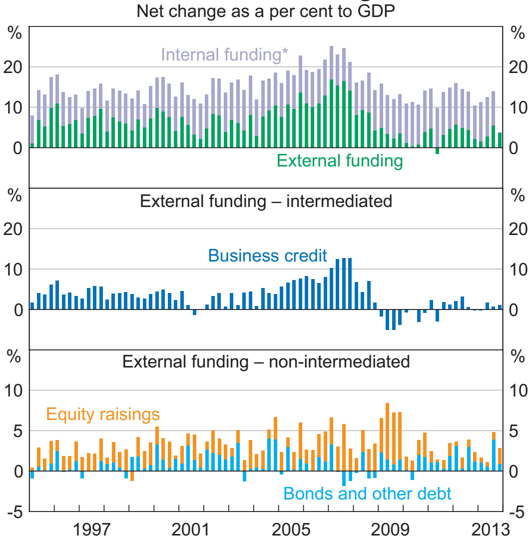
The decline in the share of non-performing loans over recent years primarily reflects a sharp fall in the rate of impaired commercial property loans (discussed further below). Over the past six months, non-performing loans for most industries have declined, although there is some evidence of a slight deterioration in the performance of loans to the farm sector, due to the ongoing droughts in Queensland and northern New South Wales.

Financing and balance sheet position

Overall, business funding remained lower, relative to GDP, in the second half of 2013 than in the years prior to the crisis (Graph 3.12). Businesses' demand for external funding remains subdued despite improved business conditions and the continued decline in business lending rates. The limited demand for funding likely reflects realised and prospective declines in mining investment and subdued investment intentions in the non-mining sector; the previous period of businesses deleveraging their balance sheets following the crisis is likely to have now run its course.

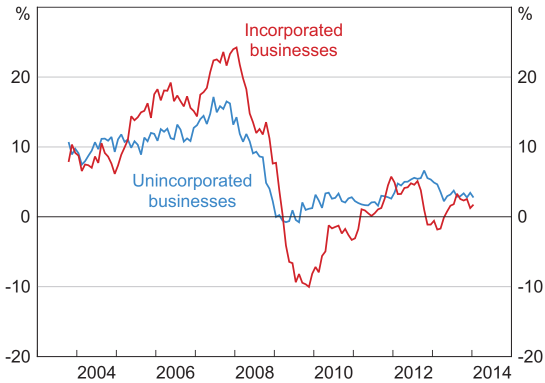
Market-sourced funding picked up over the second half of 2013, mainly driven by an increase in bond issuance with the majority of this issued into offshore markets. There was also a rise in longer-term domestic bond issuance; this was mainly by

Graph 3.12
Business Funding
Net change as a per cent to GDP



* September 2013 observation is the latest available
Sources: ABS; APRA; ASX; Austraclear; RBA

Graph 3.13
Business Credit Growth*
Six-month annualised



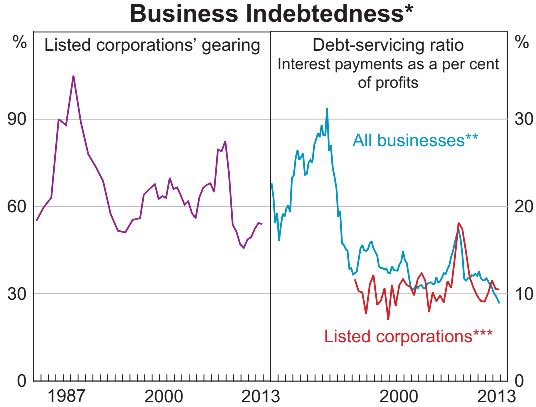
* Excludes securitised loans
Sources: APRA; RBA

lower-rated companies, suggesting that a wider range of larger businesses may be gaining access to some alternative forms of funding. Similarly, funding from equity raisings also increased strongly over the half year, likely encouraged by higher share prices and relatively subdued market volatility over this period. The increase in equity raisings was driven by a sharp increase in initial public offerings in the December quarter 2013, which is expected to continue into 2014. Equity raisings by already listed firms also increased over the second half of 2013.

Demand for intermediated business credit remains weak. The pace of incorporated business credit growth was fairly subdued at an annualised rate of 1½ per cent over the six months to January 2014, though lending growth to unincorporated businesses (which do not have access to market-based sources of funding) was a little stronger (Graph 3.13). Liaison with banks and industries suggests that access to credit, for those businesses seeking this source of funding, has generally improved over the past year.

Preliminary estimates suggest that the gearing ratio – the book value of debt to equity – of listed corporations was little changed over the second half of 2013, remaining below its average level of recent decades and around 30 percentage points below its 2008 peak (Graph 3.14). The share of listed corporations' profits required to service their interest payments was also largely unchanged over the second half of 2013, remaining relatively low due to the continued easing in business lending rates and the stabilisation of corporate bond yields at historically low levels. This combination of low gearing and debt-servicing burden should provide support to future loan performance.

Graph 3.14
Business Indebtedness*

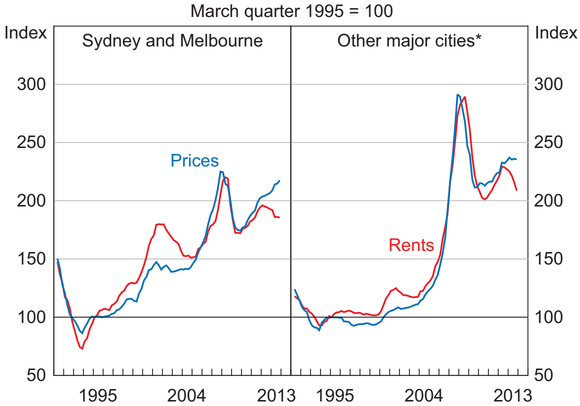


* Listed corporations exclude foreign-domiciled companies
** Gross interest paid on intermediated debt from Australian-located financial institutions
*** Net interest paid on all debt
Sources: ABS; APRA; Bloomberg; Morningstar; RBA; Statex

Commercial Property

The disconnect between prices and rents in the CBD office property market has continued and broadened beyond Sydney and Melbourne (Graph 3.15). Leasing conditions softened further over the second half of 2013, despite the improvement in business conditions. This has mainly been driven by additional supply in early 2013, as well as weaker tenant demand, particularly from resource-related companies in Perth and Brisbane. Effective rents for CBD office property continued to fall, driven by an increase in incentives (such as rent-free months), which are now at their highest level as a share of contractual rents since the mid 1990s. At the same time, the aggregate CBD office vacancy rate has continued to increase.

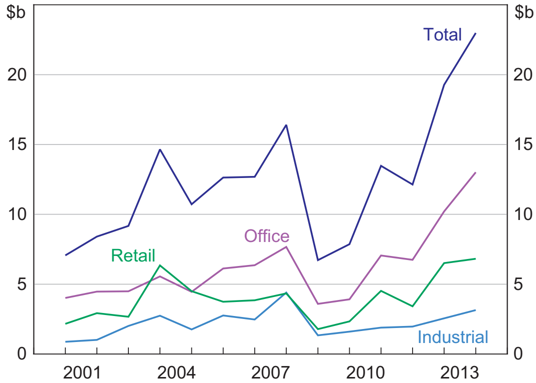
Graph 3.15
Prime CBD Office Property
March quarter 1995 = 100



* Adelaide, Brisbane, Canberra and Perth
Sources: Jones Lang LaSalle Research; Property Council of Australia; RBA

Despite the weaker leasing conditions, the value of office property transactions increased in 2013, in part driven by investor demand (Graph 3.16). This has contributed to the increase in prices, at least in most CBDs, and consequently led to further divergence of rents and prices. This divergence has been present in Sydney and Melbourne for some time and is now more evident in some other capital cities, particularly Adelaide and Perth. The strong investor demand has reportedly been driven by attractive yields on Australian office property relative to major overseas markets and other domestic investments. According to liaison with industry, part of the demand for office property has been driven by offshore investors, particularly in Sydney and Melbourne, though domestic investors have become more active recently.

Graph 3.16
Value of Commercial Property Transactions*
Annual

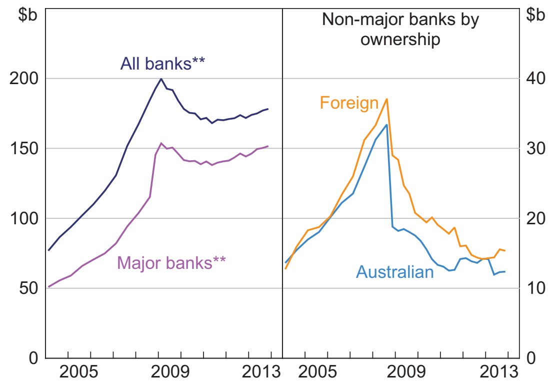


* Only includes transactions ⩾ $5 million
Source: Jones Lang LaSalle Research

One potential risk of the current level of activity in the office property market may be oversupply that leads to a further weakening in leasing conditions and potential price declines. The value of building approvals for office property has increased strongly in recent months, although some of this has been driven by approvals for a few large projects and most of the addition to supply is not expected until at least 2015–16. Industry liaison suggests that the potential risks of oversupply from these developments may be tempered somewhat by the conversion of older office space into residential property. It has also been noted in industry liaison that some developments have recently commenced with lower rates of precommitments than those observed in the previous few years. Most of the resulting increase in the risk of lack of tenants is likely to be borne by developers and their investment partners, as banks are reportedly generally unwilling to fund projects with low precommitments.

Even though transactions in the commercial property market have increased, the commercial property exposures of banks have grown only modestly over the past two years and remain well below their 2009 peak (Graph 3.17). Most of the increase has been driven by the exposures of the major Australian banks to the office property and 'other' (including education, healthcare and infrastructure) segments. Asian-owned banks' exposures have also increased over the past two years, particularly to the retail and 'other' segments. In contrast, European and smaller Australian-owned banks have been reducing their exposures for some time, partly by selling non-performing loans, although this process has probably largely run its course.

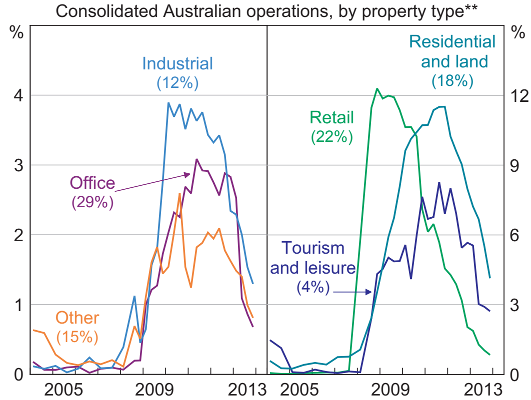
Graph 3.17
Banks' Commercial Property Exposures*
Consolidated operations



* Quarterly from September 2008; some banks report only on a semiannual basis
** Excludes overseas exposures
Sources: APRA; RBA

Against this background, the impairment rate on banks' commercial property exposures has fallen significantly since its peak in late 2010 (Graph 3.18). The decline has been broadly based across property types, mainly reflecting the disposal or write-off of impaired loans.

Graph 3.18
Commercial Property Impairment Rate*
Consolidated Australian operations, by property type**



* Quarterly from September 2008; some banks report only on a semiannual basis
** Brackets show exposures to each property type as a share of total commercial property exposures as at December 2013
Sources: APRA; RBA

In terms of future loan performance, compared with six months ago the major banks appear to be less concerned about their exposures to Melbourne's residential apartment market. Previously, concerns had been raised that the high level of approvals, particularly in the inner city, could lead to oversupply. However, there does remain some concern by banks about an increase in supply of smaller apartments targeted at international students, which may not perform well in the secondary market if student numbers do not increase as forecast and demand from other types of tenants is not forthcoming. Liaison with industry appears to be more mixed on the outlook; some contacts are concerned about the market's ability to absorb the volume of supply due for completion in the coming years, while others point to ongoing growth in demand, particularly from offshore investors.

4. Developments in the Financial System Architecture

The G20 – together with the Financial Stability Board (FSB) and standard-setting bodies – has played a key role in developing reforms to address the issues revealed by the financial crisis, and in assisting their implementation. This year, under Australia's presidency, the G20 has sharpened its focus on substantially completing key aspects of the four core areas of financial regulatory reform: (1) building resilient financial institutions through the Basel III reforms; (2) addressing the 'too big to fail' problem associated with systemically important financial institutions; (3) addressing shadow banking risks; and (4) making derivatives markets safer. Policy development and implementation have continued in recent months across these core areas. Australian regulatory agencies are contributing to these efforts.

In Australia, the government established a Financial System Inquiry with wide-ranging terms of reference. The Bank will make a detailed submission to the inquiry on financial system trends and regulatory issues at the end of this month. In other developments, the Australian Prudential Regulation Authority (APRA) finalised its standard implementing the Basel III Liquidity Coverage Ratio (LCR) in Australia, and also released its framework for domestic systemically important banks (D-SIBs).

International Regulatory Developments and Australia

Building resilient financial institutions

Enhancing international capital and liquidity standards for banks – through the Basel III reforms – was a central element of the global policy response to the crisis. The Basel Committee on Banking Supervision (BCBS) continues to monitor the implementation of Basel III and the broader capital framework by its members, and recently it issued reports covering different elements of its monitoring work.

- As part of its Regulatory Consistency Assessment Programme, the BCBS recently completed a 'Level 2' peer review of Australia, which is a detailed examination of whether a jurisdiction's regulations are consistent with the Basel capital framework. The assessment concluded that Australia's regime is compliant overall. Specifically, APRA's prudential standards were found to be compliant with 12 of the 14 key components of the Basel capital framework and 'largely compliant' with the remaining two components (related to the definition of capital and the internal ratings-based approach for credit risk). APRA is reviewing the findings, but does not consider that any significant changes to its regulatory regime will be necessary.
- The BCBS regularly monitors the progress of banks in its member jurisdictions in meeting the new Basel III capital requirements – the latest available results from this exercise are as at 30 June 2013. The largest banks that participated in the exercise ('Group 1' banks) reported an average common equity Tier 1 (CET1) capital ratio of 9.5 per cent, assuming the new Basel III definitions of capital and risk-weighted assets (RWAs) are fully taken into account and ignoring any phase-in arrangements. Internationally,

several banks were yet to reach the 4.5 per cent CET1 minimum that is required under Basel III, though the aggregate capital shortfall at these banks was relatively small, at €3.3 billion. The amount of additional capital Group 1 banks needed to meet a CET1 target ratio of 7 per cent (including the capital conservation buffer that will eventually be required under Basel III) as well as any capital surcharge for global systemically important banks (G-SIBs), was €57.5 billion. This was half the size of the shortfall as at end December 2012, implying that banks' capital positions have been strengthened.

Following endorsement in January by its oversight body (the Group of Governors and Heads of Supervision) the BCBS finalised or progressed several outstanding elements of the Basel III capital and liquidity reforms. In particular, the BCBS:

- agreed on a common definition of the leverage ratio, which is complementary to the risk-based capital framework and aims to restrict the build-up of excessive leverage in the banking sector. Following an earlier consultation, the BCBS clarified the treatment of items (such as derivatives and off-balance sheet exposures) in the denominator of the leverage ratio calculation. The BCBS continues to monitor banks' leverage ratio data to assess whether the previously announced calibration of the requirement (i.e. a minimum leverage ratio of 3 per cent, based on Tier 1 capital) is appropriate over a full credit cycle and for different types of business models. It is also tracking the impact of using either CET1 or total regulatory capital as the capital measure in the leverage ratio calculation. Any final changes to the leverage ratio will be made by 2017, with a view to migrating to a Pillar 1 (minimum capital requirement) treatment from 2018. The BCBS also announced requirements for banks to disclose information relating to their leverage ratio, which will take effect from January 2015
- issued for consultation proposed changes to the Net Stable Funding Ratio (NSFR). The NSFR is the Basel III long-term (structural) funding liquidity standard, which complements the short-term LCR. The proposed revisions aim to better align the NSFR with the LCR, reduce cliff effects within the measurement of funding stability, and alter the calibration of the NSFR to focus greater attention on short-term, potentially volatile funding sources. The consultation closes in April
- agreed to permit a wider use of committed liquidity facilities (CLFs) provided by central banks. To date, the use of CLFs within the LCR has been limited to those jurisdictions (such as Australia) with relatively low government debt and therefore insufficient high-quality liquid assets (HQLA) to meet the needs of the banking system. Following work by a BCBS sub-group co-chaired by a senior Reserve Bank executive, the BCBS has agreed that a restricted version of a CLF may be used by all jurisdictions subject to specific conditions, including central bank approval
- issued final requirements for banks' LCR-related disclosures, and further guidance on how national authorities can use market-based indicators of liquidity within their own frameworks for assessing whether assets qualify as HQLA under the LCR.

In December, APRA issued its liquidity standard implementing the LCR in Australia, which is largely unchanged from the draft proposals issued for consultation mid last year. The LCR will start in full in January 2015, at which time the Bank's CLF will also become active. In January, APRA released further detail on the operation of the CLF, following a trial exercise involving 35 authorised deposit-taking institutions (ADIs) to determine the appropriate size of the CLF for each ADI subject to the LCR requirement. In the exercise, ADIs submitted an application for a pro forma CLF to cover their expected Australian dollar LCR shortfall for the calendar year 2014. A more formal CLF application process will take place this year, with APRA aiming to finalise the size of each ADI's CLF by 30 September. (Further information is provided in the chapter 'The Australian Financial System'.)

The BCBS is continuing its work on completing reforms to trading book requirements – a second consultative document was issued in October – and addressing excessive variability of banks' RWAs. On the latter, a second report on market risk RWAs was released in December, which extended the earlier analysis to more representative and complex trading positions. Consistent with the findings in the previous report on RWA calculations, the results show significant variation in the outputs of market risk internal models used to calculate regulatory capital. In addition, the results show that variability typically increases for more complex trading positions. The analysis also confirms the finding that differences in modelling choices are a significant driver of variation in market risk RWAs across banks. In response, the BCBS is considering reforms in several areas to improve consistency and comparability in bank capital ratios, such as: (a) improving public disclosure and the collection of regulatory data to aid the understanding of market risk RWAs; (b) narrowing the range of modelling choices for banks; and (c) further harmonising supervisory practices with regard to model approvals.

Systemically important financial institutions (SIFIs)

As discussed in previous *Reviews*, efforts to address the 'too big to fail' problem associated with SIFIs involve applying measures from a policy framework developed by the FSB, and endorsed by the G20 in 2010. The broad policy framework covers higher capital charges, enhanced resolution regimes, recovery and resolution planning, and more intensive supervision for SIFIs. Related to this policy framework is the development of methodologies to assess the systemic importance of institutions as a precursor to their designation as SIFIs. International and national bodies have continued to take steps in these areas recently.

With the support of the G20, the FSB is leading the development of proposals on 'gone-concern loss absorbing capacity' (GLAC) for global SIFIs. GLAC refers to the ability of an insolvent financial institution to be returned to viability, or otherwise resolved, by exposing liabilities to loss – for example, by 'bailing in' private creditors – rather than using taxpayer funds for recapitalisation. This is a complicated area covering many issues, often technical and legal. The measures being considered are to be applied to G-SIBs, so will not apply to Australian-owned banks. However, as G20 Chair and members of various international groups working on these proposals, Australian authorities are involved in the effort to see that these complex issues are addressed in a considered manner before the proposals are finalised in time for the Brisbane G20 Leaders Summit in November. International regulatory developments around resolution, and crisis management issues more generally, are regularly discussed at meetings of the Council of Financial Regulators (CFR).

More broadly, bail-in is an element of the *Key Attributes of Effective Resolution Regimes for Financial Institutions* (*Key Attributes*), issued by the FSB in 2011, which the FSB has urged all G20 countries to meet by end 2015. Several jurisdictions have recently taken steps in developing or implementing bail in powers. In December, European authorities reached an initial agreement on a new resolution regime for banks in Europe. The *Bank Recovery and Resolution Directive* gives European supervisors the legal powers to resolve failing banks, as specified in the *Key Attributes*. The directive introduces a form of depositor preference for retail depositors and, from January 2016, supervisors would have the power to bail in private creditors by writing down their claims or converting them to equity. The agreement remains subject to formal approval by the European authorities. In January, Hong Kong regulators proposed a new resolution regime for banks, insurers, financial market infrastructures and other financial institutions which includes bail-in powers among a menu of options available to resolve SIFIs. Australian authorities are monitoring these developments in the context of ongoing work on domestic resolution arrangements.

In January, the FSB and the International Organization of Securities Commissions (IOSCO) issued for consultation their proposed methodologies for identifying non-bank non-insurer global SIFIs. In particular, these methodologies cover finance companies, securities broker-dealers and investment funds. The methodologies are broadly in line with those for identifying G-SIBs and global systemically important insurers (G-SIIs): they are indicator-based approaches for assessing global systemic importance, based on impact factors such as size, interconnectedness, substitutability, complexity and cross-jurisdictional presence. In the proposed methodologies, domestic authorities will have a key role in assessing the global systemic importance of non-bank non-insurer entities (with an international oversight group providing a mechanism for consistency across countries). This contrasts with the G-SIB and G-SII methodologies, where a central body (the relevant standard-setter) conducted the assessments. The proposed materiality thresholds, and the exclusion of subsidiaries of banks and insurers already assessed by the G-SIB and G-SII methodologies, work to limit the potential number of entities likely to be considered by the methodologies. The consultation closes in April.

In February, the International Association of Insurance Supervisors (IAIS) concluded its first stage of consultation on possible approaches to setting 'basic capital requirements' (BCR) for G-SIIs. The BCR aims to improve the comparability of capital held by insurers operating in different jurisdictions by, for example, developing an agreed approach to the valuation of insurance liabilities and significant asset classes. Over coming months the IAIS will conduct impact assessments of the BCR to test its effectiveness and likely effects on business. The BCR is due to be finalised by the G20 Summit in November.

In December 2013, APRA released its framework for D-SIBs in Australia. APRA's framework is based on the D-SIB principles issued by the BCBS; D-SIB frameworks have also been recently announced in other countries, such as Canada (which was discussed in the September 2013 *Review*). As discussed in 'The Australian Financial System' chapter, the four major banks have been designated as D-SIBs and they will be required to hold an additional 1 percentage point of CET1 capital by January 2016. APRA indicated that the four D-SIBs currently hold significant management capital buffers above minimum requirements; they also have strong capital generation capacity through earnings retention. As such, in APRA's view, phase-in arrangements for the additional capital requirement, beyond the two-year lead time, were unnecessary. APRA's risk-based approach to supervision already subjects institutions that pose greater systemic risks to more intensive oversight and other prudential requirements; APRA considers this heightened supervisory attention to be a key aspect of their regulatory arrangements for D-SIBs.

Jurisdictions are also proposing, or implementing, 'structural banking reforms' to help address the risks posed by SIFIs. By making institutions less complex or interconnected, such reforms aim to make it easier to resolve them without the need for taxpayer bailouts or depositors suffering losses. Recent structural banking measures are noted below.

- In the United States, regulators issued a final standard in December 2013 implementing the 'Volcker Rule', which prohibits prudentially regulated institutions from engaging in most forms of proprietary trading (i.e. short-term, speculative risk-taking by the institution unrelated to client business, as opposed to market-making) and limits their investments in managed funds. In February, the Federal Reserve finalised a new standard for 'foreign banking organisations' (FBOs) operating in the United States. Depending on the size of their US assets and their consolidated global assets, FBOs will need to comply with enhanced capital and other prudential standards. Larger FBOs will also be required to consolidate their bank and non-bank subsidiaries under an 'intermediate holding company', which would be subject to supervisory requirements generally applicable to US bank holding companies. These requirements start to come into effect in 2016.

- In January, the European Commission proposed a set of structural reforms for the European Union (EU) banking sector, based on the recommendations of a 2012 report by the 'High-level Expert Group' (the 'Liikanen' report). Under the proposal, supervisors would be given the power to require systemically important banks to transfer their high-risk trading activities, including market-making, into a separately capitalised subsidiary. Supervisors would use a number of metrics to assess whether a separation is warranted, including measures of a bank's size, leverage, complexity, market risk and interconnectedness. The proposal also includes a ban on certain proprietary trading activities. Once approved by European authorities, the ban on proprietary trading would become effective in 2017 and the potential separation requirements in 2018.
- In the United Kingdom, the Banking Reform Act was passed in December 2013, implementing the key recommendations of the 2011 report by the Independent Commission on Banking (the 'Vickers' report). The reforms are largely consistent with those by the European Commission noted above, though they are somewhat broader. They require that retail banking activities in the United Kingdom are 'ring-fenced' into an entity that is legally and operationally separate from the bank's investment banking and high-risk wholesale banking activities. Intragroup exposures between the ring-fenced entity and the rest of the bank will be limited, and ring-fenced entities will be prohibited from operating outside the European Economic Area (EEA).

  The UK Prudential Regulation Authority (PRA) released a consultation paper in February which mainly detailed its framework for supervising UK branches of banks from non-EEA countries. In particular, this framework is based on two key tests: (1) whether the supervision of a bank in its home jurisdiction is equivalent to that of the PRA; and (2) whether the PRA has assurance from the home supervisor over the bank's resolution plan in a way that reduces the impact on financial stability in the United Kingdom. In line with these tests, the PRA will determine whether the bank undertakes any critical economic functions in the United Kingdom. Depending on what these are, and their potential impact on UK financial stability, the PRA will judge whether it is content for the bank to operate as a branch in the United Kingdom. This will affect both new and existing branches of non-EEA banks.

A concern expressed by some observers is that in attempting to protect domestic taxpayers and depositors, structural banking reforms may, unintentionally, lead to harmful fragmentation of global banking and capital markets. The G20 has tasked the FSB, together with the International Monetary Fund and the Organisation for Economic Co-operation and Development, to assess the cross-border consistency and global financial stability implications of structural banking reforms, with a report due to the G20 Summit in November.

Shadow banking

The FSB continues to coordinate international work to strengthen the oversight and regulation of shadow banking systems and address the risks posed by certain entities and activities. As mentioned in the previous *Review*, recommendations have now been finalised in three areas: money market funds (MMFs), other shadow banking entities, and securitisation. The focus is now switching to implementation, using a 'roadmap' of timelines released at the September 2013 G20 Leaders Summit. IOSCO is to conduct peer reviews this year on the implementation of its MMF and securitisation recommendations, while the FSB is continuing to develop an information sharing process, as part of its policy framework relating to shadow banking entities other than MMFs.

Policy development is continuing in two other areas.

- The BCBS is working on addressing the risks arising from banks' links with shadow banks. In December 2013, the BCBS issued its policy on capital requirements for banks' equity investments in funds, which is based on the general principle that banks should apply a 'look-through' approach, by risk weighting the underlying exposures of a fund as if the exposures were directly held. As discussed in the previous *Review*, the BCBS is working on finalising its framework for measuring and controlling banks' large exposures to a single counterparty (including shadow banking entities) or group of connected counterparties. The BCBS is also continuing its work on the scope of consolidated (i.e. group-wide) supervision, given that many shadow banking entities prior to the crisis were in fact subsidiaries of banking groups.
- The FSB is progressing work in the area of securities financing transactions (SFTs), such as repurchase agreements. A particular focus is developing minimum standards for methodologies to calculate haircuts on non-centrally cleared SFTs, and a framework of numerical haircut floors. The FSB recently conducted a second quantitative impact study (QIS) on minimum haircut proposals for SFTs.

In addition to the work on shadow banking coordinated by the FSB, standard-setting bodies and national authorities are taking measures related to particular shadow banking activities. In December 2013, the BCBS released for consultation a second set of proposed revisions to the treatment of securitisation exposures held in the banking book. The financial crisis revealed several shortcomings in the existing capital treatment of banks' securitisation exposures, which meant that capital requirements were either too low or increased rapidly when credit conditions deteriorated, creating incentives for banks to sell their exposures at a loss, thus giving rise to a 'fire sale' dynamic. The revised framework has therefore been designed to be more risk-sensitive, to reduce cliff effects, and to reduce banks' mechanistic reliance on the ratings provided by credit rating agencies. It does so using a new hierarchy of approaches for banks to follow when calculating their capital requirements for securitisation exposures. A risk-weight floor of 15 per cent would apply across the proposed approaches, to account for the possibility of model risk. The BCBS will undertake a second QIS to assess the potential impact of the proposed revisions, with a view to finalising the framework by the end of 2014.

In November 2013, APRA provided an update on possible changes to its prudential regulatory framework for securitisation. APRA will consult on its proposed new framework which is based on simple, low-risk structures that make it straightforward for ADIs to use securitisation as a funding tool and for capital relief. This in turn should lead to a reduction in industry complexity, and an improvement in ADI risk allocation and management.

Domestic authorities continue to monitor developments in Australia's relatively small shadow banking sector. For example, in September 2013 the Australian Securities and Investments Commission (ASIC) released its review of the level of systemic risk posed by 'single-strategy' hedge funds. The report, which also reviewed the results of ASIC's 2012 hedge funds survey, found that Australian hedge funds do not currently appear to pose a systemic risk to the Australian economy. In December 2013, the CFR considered developments in shadow banking. CFR members agreed that risks to financial stability in Australia from shadow banking were limited, though regular attention to potential risks emerging outside the regulatory perimeter remained necessary.

Over-the-counter (OTC) derivatives markets

The cross-border reach of some jurisdictions' rules and the potential for conflicts, inconsistencies and duplicated requirements remain an important international focus for authorities overseeing OTC derivatives reforms. At the February 2014 meeting of G20 Finance Ministers and Central Bank Governors, the G20 reiterated its commitment to progressing OTC derivatives reforms in an 'outcomes-focused' manner, whereby regulators are able to defer to each other when it is justified by the quality of their respective regulatory and enforcement regimes. This commitment is being matched by recent developments in several jurisdictions, and at the international level.

- In February, authorities in the United States and the EU reached agreement on resolving their cross-border issues relating to the regulation of European trading platforms, as part of their July 2013 'Path Forward' framework.
- The OTC Derivatives Regulators Group (which comprises authorities responsible for OTC derivatives regulation in several markets, including Australia) will in April provide the G20 a list of remaining cross-border implementation issues. For the November Summit, the Group will prepare a report on how it has resolved or intends to resolve cross-border issues together with a timeline for implementing solutions.
- The FSB is to present a report to the G20 by September on jurisdictions' processes to enable them to defer to each other's OTC derivatives rules in cross-border contexts where these achieve similar outcomes. This report in turn will be used to inform discussions on whether flexible outcomes-based approaches to resolve cross-border market regulation issues can be used more widely (i.e. beyond OTC derivatives markets).

The European Securities and Markets Authority (ESMA) and the US Commodity Futures Trading Commission (CFTC) continue to assess the equivalence of other jurisdictions' regulation of OTC derivatives markets.

- ESMA's assessments of a number of countries' regimes, including Australia's, were published in late 2013. ESMA found that Australia's regulatory regimes for central counterparties (CCPs), trade repositories (TRs) and trade reporting were broadly equivalent to the EU's regulatory framework. A finding of equivalence in CCP regulation was particularly important given that ASX Clear (Futures) will need to be recognised in the EU in order to continue to admit European entities as clearing participants. However, ESMA did not find other aspects of Australia's OTC derivatives regulation to be equivalent. In particular, ESMA found no equivalent rules for risk management of non-centrally cleared trades, which in part reflects the current lack of international standards in this area. It is therefore likely that Australian market participants will need to continue complying directly with EU rules on risk management of non-centrally cleared trades, where they are either trading with European entities or if their activity is otherwise deemed to be connected to the EU.
- In December 2013, the CFTC published comparability assessments for several jurisdictions, including Australia. The CFTC granted substituted compliance for several requirements to the five Australian banks that have registered as Swap Dealers under the Dodd-Frank Act, meaning that they avoid being subject to largely duplicated regulations and only need to adhere to Australian rules. The CFTC has not yet concluded its assessment of foreign trade reporting regimes, but has extended transitional relief from reporting requirements until December 2014, or earlier if it makes a decision on comparability. The lack of international standards for risk management of non-centrally cleared trades contributed to the CFTC's decision not to grant substituted compliance in this area. Australia also does not currently have comparable mandatory clearing rules. In both cases, Australian Swap Dealers will therefore need to comply directly with CFTC rules, as well as Australian regulations.
- Separately, in February, the CFTC granted ASX Clear (Futures) 'no action' relief from the requirement to register as a Derivatives Clearing Organisation under the Dodd-Frank Act. This relief permits ASX Clear (Futures) to clear Australian or New Zealand dollar-denominated OTC interest rate derivatives for the Australian

branches of US banks. The Australian trading platform, Yieldbroker, has also received 'no action' relief by the CFTC from the requirement to register as a Swap Execution Facility, which allows US persons to continue to trade OTC derivatives on Yieldbroker. It is expected that the CFTC will develop alternative compliance regimes for facilities like ASX Clear (Futures) and Yieldbroker, which will allow the CFTC to place reliance on foreign regulators.

Australian regulators continue to implement internationally agreed reforms in OTC derivatives markets. Much of this work is progressed through the CFR.

- The government recently published a proposal to introduce mandatory clearing of interest rate derivatives denominated in US dollars, euro, British pounds and Japanese yen, which are already subject to mandatory clearing in the United States. At this stage, it is proposed that the obligation would only be applied to trades between large financial institutions with significant cross-border activity in these products. The government's proposal is consistent with recommendations from APRA, ASIC and the Bank, which were discussed in the September 2013 *Review*.
- Regulators are due to publish a third report on the Australian OTC derivatives market in early April. Among other matters, the report will consider whether to recommend mandatory clearing of Australian dollar-denominated interest rate derivatives, and also whether any mandatory clearing requirements should extend to the non-dealer community. Even without a local clearing mandate, the transition to central clearing is accelerating (see the chapter 'The Australian Financial System' for further details).
- On 1 October 2013, the four major Australian banks and Macquarie Bank started reporting OTC derivatives transactions to TRs. On 1 April 2014, a number of large financial institutions, mainly global investment banks, will start reporting under the regime, and on 1 October 2014 remaining financial entities will do the same.

In February, the FSB issued a consultation paper on a proposed feasibility study which would set out and analyse the various options for aggregating OTC derivatives data collected by TRs. The paper, developed by a group which includes the FSB, the Committee on Payment and Settlement Systems and IOSCO, discusses the key requirements and issues involved in the aggregation of TR data, and proposes criteria for assessing different aggregation models. A report with recommendations will be submitted by the group to the FSB in May.

Other developments

As part of the FSB's work on financial benchmarks, which was discussed in the previous *Review*, the Official Sector Steering Group (OSSG) established to progress this work has set up a new sub-group on foreign exchange (FX) benchmarks, co-chaired by a senior Reserve Bank executive. This follows concerns raised about the integrity of FX benchmarks, and an assessment of FX benchmarks has now been incorporated into the FSB's ongoing programme of financial benchmark analysis. The FSB will present recommendations to improve the governance and oversight of financial benchmarks, including those for FX, to the November G20 Leaders Summit. In related work, an IOSCO group, at the request of the OSSG, is currently reviewing the implementation of IOSCO's *Principles for Financial Benchmarks* by the administrators of the key interest rate benchmarks (LIBOR, EURIBOR and TIBOR). ASIC is co-chairing this group and a report is due to the OSSG in May 2014.

In November 2013, the FSB published two papers to assist supervisors in strengthening risk management practices at financial institutions. The first, *Principles for an Effective Risk Appetite Framework*, was finalised after a consultation last year, with additional clarity provided on the extent to which a financial institution's risk appetite should be applied to individual legal entities and business units. The FSB sought comments on a second paper, *Guidance on Supervisory Interaction with Financial Institutions on Risk Culture*, which aims to assist supervisors in assessing the risk culture at financial institutions. The risk culture (i.e. the institution's attitude toward, and acceptance of, risk) is an important influence on the level of risk appetite within a financial institution. The consultation ended in January, with the FSB now working on finalising the guidance.

In March, IOSCO released a consultation report, *A Comparison and Analysis of Prudential Standards in the Securities Sector*, to highlight similarities, differences and gaps among the key prudential/capital frameworks for securities firms. IOSCO is seeking feedback on the findings of the report, with a view to updating its capital standards for securities firms issued in 1989. In particular, IOSCO identifies two areas which might be considered in any update of the capital standards, namely: to identify opportunities for regulatory capital arbitrage arising from differences in prudential regulations across jurisdictions; and to assess the implications of the increasing use of internal models to determine capital requirements.

Other Domestic Regulatory Developments

Financial System Inquiry

In November, the government established a Financial System Inquiry, with wide-ranging terms of reference. The Bank will shortly make a submission to the inquiry which will provide a comprehensive overview of key developments since the Wallis Committee reported in 1997, including reforms to financial regulation and issues around funding, competition, systemic risk, payments and the role of superannuation in the Australian financial system. The inquiry is to release an interim report by mid 2014, with a final report to the government due by November.

Prudential standards

Following a consultation with industry, APRA released in January its final package of amendments designed to enhance the risk management and governance practices of APRA-regulated institutions. As discussed in the previous *Review*, the enhanced cross-industry standards for risk management and governance will apply from January 2015 to ADIs, insurers, single industry (Level 2) groups and financial conglomerates (Level 3 groups).

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